# BOE

## Basis of Estimates

*2011*

State Specifications and Estimates Office
Estimating Systems Support Section

2011

# FDOT Basis of Estimates

2011

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# Basis of Estimates

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# Introduction
# BASIS OF ESTIMATES MANUAL

## I.1 PURPOSE

The ***Basis of Estimates Manual*** sets forth the standard methods of documenting design quantities, as well as selection criteria, for construction pay items for Florida Department of Transportation (FDOT) projects.

## I.2 AUTHORITY

Sections 334.044(2), 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

## I.3 SCOPE

This procedure impacts anyone preparing construction plans or specifications for the Department.

## I.4 GENERAL INFORMATION

***Chapter 334*** of the ***Florida Statutes***, as part of the ***Florida Transportation Code,*** establishes the responsibilities of the State, counties, and municipalities for the planning and development of the transportation systems serving the people of Florida, with the objective of assuring development of an integrated, balanced statewide system. The ***Code's*** purpose is to protect the safety and general welfare of the people of the State and to preserve and improve all transportation facilities in Florida. Under ***Sections 20.23(3)(a) and 334.048(3), F.S.***, the ***Code*** sets forth the powers and duties of the Department of Transportation including adopting rules, procedures and standards for the conduct of its business operations and the implementation of any provisions of law for which the Department is responsible.

## I.5 DISTRIBUTION

This document is published online at http://www.dot.state.fl.us/specificationsoffice/ . Contacts, updates and registration information are available at the Basis of Estimates link on the above internet web page.

## I.6 REGISTRATION

All users are encouraged to register online with the FDOT Project Management Contact Database located at http://www.dot.state.fl.us/projectmanagementoffice/contactdatabase.shtm . Registered users will receive e-mail notification of major updates and bulletins.

## I.7 REVISIONS and UPDATES

***Basis of Estimates*** holders are encouraged to submit comments and suggestions for changes to this manual to the State Specifications and Estimates Office. When ideas or suggestions are received, they will be reviewed by appropriate Design and/or Construction staff in a timely manner, and will be coordinated with other offices affected by the proposed change. Issues warranting immediate change will be made with the approval of the State Estimates Engineer in the form of an ***Estimates Bulletin***.

***Estimates Bulletins*** will be posted online at
http://www.dot.state.fl.us/specificationsoffice/.

**NOTE:** ***Estimates Bulletins*** will remain effective until either:
a) an official manual revision is published, or
b) the Estimates Bulletin is made void.

The State Specifications and Estimates Office will coordinate proposed revisions or additions with affected offices within the Central Office. All new chapters and substantive revisions that result in policy change will be coordinated in accordance with the Forms and Procedures Office in accordance with ***Procedure No. 025-020-002, Standard Operating System***, and the Executive Committee for concurrence.

Basis of Estimates Coordinator,
FDOT State Specifications and Estimates Office
605 Suwannee St., MS 34
Tallahassee, FL 32399-0450
http://www.dot.state.fl.us/specificationsoffice/

Updates are posted online at least twice a year. Issues resulting in an ***Estimates Bulletin*** will be updated as approved by the State Estimates Engineer. Additions, minor issues, or corrections not requiring a bulletin will be updated as needed.

## I.8 TRAINING

No training required. Optional training on the ***Basis of Estimates***, reports, and supporting computer systems is available through the Estimating Systems Support section of the State Specifications and Estimates Office.

## I.9 FORMS

The Pay Item Request form is available online at
http://www2.dot.state.fl.us/proceduraldocuments/forms/forms.asp
The use of this form is optional; refer to ***Chapter 6*** for complete information.

## Revision History

This is the revision history for the ***Introduction***; revisions to ***Chapters 1-10*** are located at the end of each chapter. Revisions and history of individual pay items is available through the State Specifications and Estimates Office, care of the Basis of Estimates Coordinator.

12-1-10: Updated header dates for 2011 edition.
12-9-09: Expanded ***Revisions and Updates*** to include a limitation on the lifespan of an ***Estimates Bulletin***.
10-30-09: Updated header dates for 2010 edition.
6-30-09: Removed draft watermark. Updated header date for publication.
11-14-08: Updated internet links to current addresses.
11-5-08: Updated formatting in accordance with Forms and Procedures Office's recommendations.
10-1-08: Updated header dates for 2009 edition. Forms- added note to indicate form is optional.

# BOE

## Basis of Estimates

*Chapter 1*

*Updates & Registration*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 1
# Updates and Registration

## 1.1 Registration

All users of the Basis of Estimates (BOE) are encouraged to register with the Contact Database at http://www.dot.state.fl.us/projectmanagementoffice/contactdatabase.htm . Registration is free. Additional information about the contact database is available at the web page above.

## 1.2 Update notices

An e-mail message is sent to all registered users when **major** updates occur, normally twice a year.

Estimates Bulletins will be posted online for major pay item changes. E-mail messages will be sent when it is determined that an issue has a "significant impact" on a large number of projects. E-mail messages will only be sent with approval of the State Estimates Engineer.

Major changes and bulletins must be implemented according to the posted implementation schedule for the specific pay item(s). The implementation dates are scheduled to coordinate specifications, standards, and other design guidance.

**Minor** changes will be posted online, as needed. Note the revision date for the applicable file or chapter. A summary of minor changes will be posted online, with the major updates. Minor changes should be implemented in design, as early as practical.

## 1.3 Proposed Changes

Users are encouraged to submit comments and suggestions for changes to the BOE. All items will be reviewed by the BOE Coordinator, and processed as follows:

a) Pay item Issues: Refer to Chapter 6 for additional information.

b) Formatting Issues: Evaluated by the BOE Coordinator.

c) Other Content Issues: Evaluated by the BOE Coordinator and/or the responsible office.

Issues forwarded to the C-Team are processed as detailed in Chapter 6. Other issues requiring review will be discussed with the State Estimates Engineer, and processed as recommended.

## 1.4 Submitting Proposed Updates

To submit a comment or suggestion, send the appropriate information to the BOE Coordinator or State Estimates Engineer. Contact Information is listed in Chapter 5, and on the State Estimates Office's web pages.

Please include the complete pay item number (if applicable), a detailed explanation of the proposal, and contact information (if you would like a response).

### 1.5 Critical Dates for BOE Updates

In order to process changes in a timely manner, please submit proposed changes as early as possible. What may appear as a minor change for one office may result in major changes for another office. With assistance from the Coordination team, all issues will be resolved prior to announcement in an Estimates Bulletin or Summary of Major Changes.

The following dates are normal processing deadlines. Issues impacting a significant number of projects and/or dollar value may require longer or shorter processing times, as recommended by FDOT managers.

| Deadline | Annual Edition | Mid-Year Update |
|---|---|---|
| Normal Implementation of issues* | July letting | January letting |
| Publication Date (approx 6-9 months prior to implementation) | October-January | April -June |
| Other affected specifications, manuals and/or handbooks** | varies | varies |

*Issues with less than 6 months advance notice will normally be issued as a Bulletin, Mandatory, or other special announcement to registered users.
**Contact the responsible office for critical dates and update procedures. Specifications, manuals, and handbooks may take 6-18 months from start to implementation.

## Chapter 1 Revision History

12-1-10: Updated header dates for 2011 edition.
10-30-09: Updated header dates for 2010 edition.
10-19-2009: Removed cover letter reference; all major changes announced with a bulletin.
10-1-2008: Updated header dates for 2009 edition.

# BOE

## Basis of Estimates

# *Chapter 2*
# *Units of Measure*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 2
# Units of Measure

## 2.1 Abbreviations

Listed below are selected abbreviations used in the Basis of Estimates. For a more complete list of abbreviations, refer to Design Standards, Index No. 001.

| | |
|---|---|
| AC | Acre |
| AS | Assembly* |
| BU | Bushel |
| CF | Cubic Foot |
| CO | Cleanout* |
| CY | Cubic Yard |
| DA | Day |
| DD | Dollars per Day |
| EA | Each |
| ED | Each Day |
| GA | Gallon |
| GK | Gross Kilometer |
| GM | Gross Mile |
| HA | Hectare |
| HR | Hour |
| KG | Kilogram |
| KL | Kiloliter |
| KM | Kilometer |
| LB | Pound |
| LF | Foot |
| LI | Liter |
| LO | Location |
| LS | Lump Sum |
| LU | Luminaire |
| M1 | Meter |
| M2 | Square Meter |
| M2 | Square Meter |
| M3 | Cubic Meter |
| MB | Board Measure/ Thousand Feet |
| MG | Thousand Gallons |
| MH | Man-hour** |
| MI | Mile |
| MO | Month |
| MT | Metric Ton |
| NK | Net Kilometer |
| NM | Net Mile |
| PA | Per Analysis* |

| | |
|---|---|
| PB | Per Building* |
| PI | Per Intersection* |
| PL | Plant* |
| PM | Per Mile* |
| PS | Per Set* |
| PW | Per Well* |
| SF | Square Foot |
| SY | Square Yard |
| TH | Therms |
| TN | Ton |
| YD | Yard |

*Units which may be replaced with unit of Each (EA), upon pay item review
** Units may be replaced with Hour (HR), upon review.

## 2.2 ACCURACY

Unless otherwise indicated for a specific pay item, accuracy is recorded as follows:

| Unit of Measure | Accuracy* |
|---|---|
| AC | 1/10 of an acre |
| CF | 1/10 of a cubic foot |
| CY | 1/10 of a cubic yard |
| GM | 1/1000 of a mile |
| MB | 1/10 of a thousand foot board measure |
| NM | 1/1000 of a mile |
| TN | 1/10 of a Ton |
| | |
| Unit items | Unit quantity: each, assembly, location, set, intersection |
| Others | To the nearest whole number: pound, foot, square yard, gallon, day, |

*Note: Calculations are performed with one additional significant figure, and then rounded to the above accuracy for measurement/payment.

## 2.3 CONVERSION FACTORS

**Linear Measure**
25.4 mm/in
0.03937 in/mm
0.3048 m/ft
3.2808 ft/m
0.9144 m/yd
1.0936 yd/m
1.609 km/mi
0.621 mi/km

**Area Measure**
9 $ft^2/yd^2$

0.836 $m^2/yd^2$
1.2 $yd^2/m^2$
0.40 ha/ac
4047 $m^2$/ac
2.477 ac/ha
43,560$ft^2$/ac
4840 $yd^2$/ac
640 ac/$mi^2$
0.386 $mi^2/km^2$
2.590 $km^2/mi^2$

**Volume, Liquid Measure**
1728 $in^3/ft^3$
0.028 $m^3/ft^3$
0.765 $m^3/yd^3$
27 $ft^3/yd^3$
0.2642 gal/l
3.785 l/gal

**Force, Weight Measure**
2.205 lb/kg
1.10 TN/MT
0.907 MT/TN (short ton)
2000 lb/ton (short ton)
1000 kg/MT

Additional items to be added upon request.

## Chapter 2 Revision History

12-1-10: Updated header dates for 2011 edition.
10-30-09: Updated header dates for 2010 edition.
1-28-09: Added 2.2 Accuracy. Renumbered 2.3 Conversion Factors.
10-1-2008: Updated header dates for 2009 edition.

# BOE

## Basis of Estimates

*Chapter 3*

*Alphabetical List*

State Specifications and Estimates Office
Estimating Systems Support Section

# BOE

## Basis of Estimates

*Chapter 4*

*Blank– Future Use*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 4

## Blank- for future enhancement

## Chapter 4 Revision History

11-23-10: Updated header dates for 2011 edition.
10-30-09: Updated header dates for 2010 edition.
10-1-08: Updated header dates for 2009 edition.

# BOE

## Basis of Estimates

# *Chapter 5*
# *Contact Lists*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 5
# Contact Lists

The Basis of Estimates is the result of coordination between District Estimates Offices and Central Office Design, Construction, and Maintenance. Issues are identified in the districts, options are proposed through the Responsible Offices, and finally, recommendations are presented for management approval and statewide implementation.

In general, **Designers should coordinate with the FDOT Project Manager.** Pay item issues should be forwarded through the District Estimates and Specifications Coordinator(s) to the Central Office BOE Coordinator. Issues that require major changes (plans, standards, specifications, pay items, or other manuals) will be coordinated between the Responsible Offices, and any recommendations will be forwarded from the Coordination Team. Refer to the tables below for District and Responsible Office contacts.

## 5.1 CENTRAL OFFICE PAY ITEM COORDINATORS

| CENTRAL OFFICE | COORDINATOR | LOCAL |
|---|---|---|
| **Estimates, Engineering Support Services** | | |
| **Basis of Estimates** | Melissa Hollis | 850-414-4182 |
| **Long Range Estimates** | Dale Stanley | 850-414-4197 |
| **TRNS*PORT PES/CES** | Tyrone Ware | 850-414-4191 |
| **Final Estimates** | David Chason | 850-414-4171 |
| **Construction COMP Book forms** | Sherry Valdez | 850-414-4249 |
| **Specifications** | Rudy Powell<br>Frances Thomas<br>Debbie Toole | 850-414-4280<br>850-414-4101<br>850-414-4114 |
| **Construction** | Stefanie Maxwell | 850-414-4314 |
| **Maintenance** | Deanna Carroll<br>Ray Haverty | 850-410-5757<br>850-410-5531 |
| **CADD** | Michelle Guynn | 850-245-1621 |

## 5.2 DISTRICT SPECIFICATIONS AND ESTIMATES COORDINATORS

A list of district specifications and estimates contact persons is available online at http://www.dot.state.fl.us/specificationsoffice/staff.shtm.

## 5.3 CONTACT PERSONS- BY PAY ITEM NUMBER RANGE

| ITEM NUMBERS | SUBJECT/GROUP | | CENTRAL OFFICE COORDINATOR | PHONE |
|---|---|---|---|---|
| **100-102** | MOT | | Cheryl Adams | 850-414-4327 |
| **103** | Temporary Structures | | Tom Andres | 850-414-4269 |
| **104 -108** | Erosion Control Drainage | | Larry Ritchie | 850-414-4168 |
| **109** | Field Office | | Stefanie Maxwell | 850-414-4314 |
| **110-199** | "Dirt" Earthwork | Construction | Stefanie Maxwell | 850-414-4314 |
| | | Roadway | Cheryl Adams | 850-414-4327 |
| | | Geotechnical | Larry Jones | 850-414-4305 |
| | | Topsoil/Vegetation | Larry Ritchie | 850-414-4168 |
| **200-299** | Base Courses | | Emmanuel Uwaibi | 850-414-4372 |
| **300-399, except 346-347** | Surface Courses, Concrete Pavement | | Emmanuel Uwaibi | 850-414-4372 |
| **346-347** | Concrete | | Tom Andres | 850-414-4269 |
| **400-499** | Structures | Structures Design | Tom Andres | 850-414-4269 |
| | | Drainage | Linda Seigle | 850-414-4322 |
| | | Geotechnical | Larry Jones | 850-414-4305 |
| | | Movable Bridges | Angel Rodriguez | 850-414-4297 |
| **500-515** | Incidental Construction | Structures | Tom Andres | 850-414-4269 |
| | | Geotechnical | Larry Jones | 850-414-4305 |
| | | Movable Bridges | Angel Rodriguez | 850-414-4297 |
| **516-559** | Incidental Construction- Roadway Items | | Andy Keel | 850-414-4323 |
| | | | Chester Henson | 850-414-4117 |
| **560-569** | Incidental Construction- Structural Paint | | Tom Andres | 850-414-4269 |
| **570-599** | Incidental Construction- Landscaping | | Larry Ritchie | 850-414-4168 |
| **600-699** | Traffic Control Devices- Signals & ITS | | Trey Tillander | 850-410-5617 |
| **700-713** | Traffic Control- Signing & Pavement Markings | | Chester Henson | 850-414-4117 |
| **714** | Motorist Aid Call Boxes | | Trey Tillander | 850-410-5617 |
| **715** | Highway Lighting | | Chester Henson | 850-414-4117 |
| **720-734** | Incidental Construction- Other | | Andy Keel | 850-414-4323 |
| **735-739** | Turnpike Service/Toll Plaza | | Steven Sheffield | 407-264-3444 |
| **741-749** | Incidental Construction- Traffic Monitoring (TMS) | | | |
| **750-775** | Incidental Construction- Architectural, Weigh Station, Other | | Dean Perkins | 850-414-4359 |
| **780-789** | Intelligent Transportation Systems (ITS) | | Trey Tillander | 850-410-5617 |
| **800-899** | Mass Transit (Railroad) | | | |
| **1000-1999** | Utilities | | Gordon Wheeler | 850-414-4366 |

## Chapter 5 Revision History

11-17-10: Removed table 5.2 for District Estimates and Specifications Offices; added link to contact list on web page. Updated header dates for 2011 edition.
10-30-09: Updated header dates for 2010 edition.
10-29-09: Updated Pay Item ranges & contact persons.
10-22-09: Updated contact information for CO and District Specs/Estimates.
10-22-08: Updated contact information for District Specs/Estimates.
10-1-08: Updated header dates for 2009 edition.
10-1-08: Updated CO Specs contact information.
5-28-08: Updated contact information for Districts 3.

# BOE

## Basis of Estimates

# *Chapter 6*
# *Requesting Pay Items*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 6
# Requesting Pay Items

## 6.1 General

Occasionally a project requires the use of a pay item that is not currently active in the Master Pay Item Listing, or not defined in the Pay Item Structure. When this occurs, a request must be submitted. ***All pay item requests must go through the District Estimates Engineer.*** *See the instructions below for Opening Pay Items (Items which are listed on the pay item structure), Requesting New Items (Items which require a new/expanded structure), or using Generic Pay Items (Items for one-time use for non-standard work items).*

Note: According to the Plans Preparation Manual, Volume II, Chapter 2, items should be loaded for a project at Phase II. Quantities should be completed in Phase III. Due to processing times noted below, **items should be requested as soon as a need is identified.** DO NOT WAIT until Phase III or IV submittals are due.

Note: The Specifications Office requires that Technical Special Provisions (TSPs) be submitted along with **new** pay item requests. To avoid production delays, TSPs should be submitted for District Review as soon as a need is identified. Refer to the Specifications Office's web page at www.dot.state.fl.us/specificationsoffice for additional instructions.

## 6.2 Opening Pay Items

Most pay items are open and available for use on any project, as applicable. For items included in the Pay Item Structure, but not currently open on the Master Pay Item list, submit the following information via e-mail to the District Estimates Engineer:

Financial Project ID,
Letting date,
FDOT project manager's name,
Pay item number and description,
Cost data: Supplier (name, address, phone number) and unit price. (For commonly used items, a related pay item number is acceptable),
Contact name and phone number.
**For Tech Spec items:** Coordinate with the District Specifications Office before requesting pay items.

**SAMPLE E-Mail for Opening Pay Items**
(with Valid Pay Item Structure)

TO: District Estimates Engineer
Copy: Project Manager, Basis of Estimates Coordinator
From: Designer
Subject: Pay Item Request, Project 123456-1-52-01

Please open the following Pay Item(s) for Project 123456-1-52-01, scheduled for 01/01/2010 letting:

0123-456 Item Description (size)(shape defined in structure), EA
Approval of the Tech Spec is included below. (E-mail forwarded from District Specifications' approval.)

0123-457 Item Description (size in structure), LS
Covered by current specifications.

Requested By: Joe Designer, ABC Company, phone 850-555-1212.

The District Estimates Engineer will review the request, verify specification status as needed, and forward the information to the Basis of Estimates and TRNS*PORT Coordinators in the State Estimates Office.

While **most requests are completed within 2 hours**, please allow up to 2 working days for items to be opened. Upon completion of the request, a "reply to all" e-mail will be sent so that the item(s) may be loaded on the identified project(s).

## 6.3 Requesting New Items

To expand or request a new pay item structure, submit the following information via e-mail to the District Estimates Engineer (form 600-000-02 may be used, as needed):

- Item Description and suggested unit of measure, accuracy
- BOE Detail text,
- Proposed pay item structure (if applicable for items with multiple sizes, functions, etc.)
- Specifications (refer to current specification section, or attach a draft of the proposed Developmental and/or Technical Special Provision)
- PPM reference, standards, and/or plan notes that may apply,
- Supporting information (drawings, Manufacturer's literature, etc.), if available
- Cost data: Supplier (name, address, phone number) and unit price. (For commonly used items, a related pay item number is acceptable),
- Contact name, e-mail address, and phone number of Designer and/or Project Manager
- Financial Project ID & Letting Date

The District Estimates Engineer forwards the request to the State Specifications and Estimates Office. It is reviewed by the responsible office(s), Specifications Office, and then returned to the Estimates Office. Each office has the opportunity to indicate if the proposed change affects current documents (specifications, standards, and/or other manuals). When submitted via e-mail, all offices may be included with the initial request. This will allow for faster response times from all affected offices.

Requests for items with no known impact on specifications, standards, or other manuals (normally expanded sizes, shapes, etc.) will be completed within 2 working days*. Upon completion of the request, the originator will be contacted, so that the item may be loaded on the identified project.

***NOTE: While minor changes to the pay item structure can be completed within 2 hours, other changes may require additional time.** When a pay item request MAY involve a new/changed specification, existing pay item, standard, and/or manual, the request will be forwarded to the C-Team for evaluation. Updates to these items may involve extended industry review period(s) and coordination for implementation. Requests for new items should be submitted as early as possible in the design phase. Refer to the C-Team information below for process details.

## 6.4 Pay Item Request Form Instructions

The Pay item request form 600-000-02 is available at http://www2.dot.state.fl.us/proceduraldocuments/forms/forms.asp As noted above, the form is optional; the required information may be submitted via e-mail.

To complete the form, **the Originator completes the fields marked with an asterisks(*).** The Originator may be a Consultant Designer (for project specific needs), an FDOT Designer (for new products, processes, etc.) or any FDOT Employee (for implementing policy or procedures).

Fields without an asterisks (*), or unknown information, may be left blank. They will be completed by the BOE Coordinator and/or Responsible Office, as necessary.

**Item Structure (Pay item number):**

*This number will be assigned by the Basis of Estimates Coordinator in the Central Office. Specification Section numbers will be selected with recommendations from the State Specifications Office. Refer also to Developmental Pay Items below.*

Guidelines for new pay item structures 0123-456-789:

First three digits (123) match the Specification Section. See also Developmental Pay Items for special cases.

Digits 456-789 are right justified within the group.

Variables ABC-DEF may be used to define operation, size, shape, color, type, etc. when needed to separate items with significantly different cost. *Variables that can be*

*defined in the plans or specifications DO NOT need separate pay items, if the cost is similar.* Contact the Basis of Estimates Coordinator for assistance.

When Install, Relocate, or other non-furnish operations are defined, the remaining variables may be blank or zero. These should be clearly indicated with the structure.

Refer to Chapter 10 for details on the Pay Item Structure/Number. Specification Section numbers will be selected with recommendations from the State Specifications Office. Refer also to Developmental Pay Items below.

***Description:**

Describe the new pay item so that this "name" best relates to future users what this item is used for. The same name will be used for English & Metric lists; therefore, dimensions or unit specific names should be used at the structure level.

***Unit of measure:**

A maximum of two spaces used to abbreviate the method of measure for this item. (see Section 3 of the Basis of Estimates for acceptable units.) Include both English and Metric units.

***Requested Action:**

Check the type of action requested: New Item or Permanent Block. When this item is to be processed with other items, note the related item(s), i.e. Item No. ###-abc-def, or "MOT items for updated standards". An expanded pay item structure is considered a “new item”.

***Structure:**

The pay item structure ###-abc-def, should be used to define parameters which affect the price (i.e. size, shape, material), where items a through f are detailed as needed.

Additional parameters which do not affect the price may be detailed in the plans; DO NOT create additional pay item structures for these parameters. Limited structures can be used to encourage price competition between products that perform similar functions and/or provide similar end results. Use additional sheet(s) if necessary.

Refer to Chapter 10 for details on the pay item structure/number.

***Detail Information:**

Describe the item, application, recommended use, materials, etc. This information will be used to help identify the appropriate pay item, and cost estimate distribution. This information is used in the Basis of Estimates detail to assist designers in the selection and quantity calculations of an item.

Text may include "Use When…" , “Do not use when…”, "Estimate xx items per…", and/or "Item(s)… are recommended/required when this item is used."

The pay item detail information is not a substitute for specifications. In case of doubt, always refer to the applicable specification(s) for a complete description of the work to be completed, materials, measurement, and payment.

***Method of Measure, Accuracy:**

Unit of Measure & Accuracy used for payment. Consider payment accuracy of similar items, as shown in the Basis of Estimates. Note: Calculation/Documentation may require higher level of accuracy in the plans and/or computation book.

***Plan Quantity:**

Yes, if payment of item to be based on Plan Quantity, subject to specifications. No, if payment to be based on Field Measurement.

Ensure that this selection matches compensation information in the applicable specifications.

**Documentation-**

***Specification- Section, Article; Tech Specs?:**

***For items with existing or related specifications*** (requests for items with new size, shape, or function), refer to the applicable Section number.

***For project specific items*** without existing specifications (requests for items with limited use or project specific conditions), contact the District Specifications Office; a copy of the Technical Special Provision will be required with the pay item request form.

***For new, general use items*** without existing specifications (requests for items based on changes to standards, specifications, and or policy), contact the State Specifications Office. The implementation of these items will be coordinated with all affected offices.

**Specifications Submitted, Date:**

List the name of the person originating the specification, and the date it was sent to the Specifications Office.

***Plans Prep Manual:**

Refer to Volume and Chapter for applicable information. If a revision is necessary, contact the State Roadway Design Office to propose revision(s).

***Standards Index No(s):**

Applicable *Roadway and Traffic Design Standards*, or *Structures Design Standards*, with index number(s). If a revision is necessary, contact the applicable office.

***CADD/COMP Form Number(s):**

Applicable form(s) for documentation of quantities. Refer to Section 1 of the Basis of Estimates for current forms.

***Plan Notes:**

If plan notes will be required, provide sample text of note. (Plan notes should not replace or duplicate specification text.) All plan notes should be coordinated with the PPM text.

**Other:**

If use of this item is included in other documentation (Drainage, Pavement Design, Traffic Signals, or other Manual/Handbook), note applicable volume, chapter, or edition.

If revisions are necessary, coordinate changes with applicable office.

**Responsible Office Approval, Date:**

This is the Office and Contact Person listed in Chapter 5, generally within the Office of Design in Tallahassee. The Contact Person in the Responsible Office should refer to Chapter 10 for assistance in completing the blank fields on the form.

**Cost Data-**
**Related Pay Item(s), Unit Price, Additional Cost, Availability:**

For items similar in cost, provide related item numbers. (This information is used to assist in Preliminary Cost Estimates.) If no similar item exist, provide price and availability information. Unit price includes cost of material; additional cost to include installation, delivery, incidental materials, etc. Availability to include suppliers or manufacturers.

**Estimator's Approval, Date:**

State Estimates Office, Preliminary Estimates Section will review of the proposed price and/or related items.

**Originator-**
**Name, Date, Office, Phone, District:**

The originator may be a Consultant or FDOT employee, currently working on the project for which the item is requested. This person should be able to answer any additional questions regarding the use/application of this item. Complete information as requested.

**District Estimates Office Approval:**

For Items originating in the districts, the District Estimates Engineer should sign, indicating that the form contents have been completed and reviewed.

**Central Office Approvals-**
**Design Coordinator, Specifications Coordinator, BOE Coordinator, TRNS*PORT Coordinator:**

Each person responsible for approval should verify that requested action is necessary, meets existing/proposed standards, guidelines, handbooks, etc, and not in conflict with existing item(s).

**Implementation-**
**Effective Letting Date, C-Team Issue #, Summary Details:**

The implementation information will be completed in the Central Office, following all approvals. Actions which require coordination between offices will be addressed by the Coordination Team, with approved implementation plans detailed in the Basis of Estimates Summary of Changes. Minor actions, not requiring an implementation plan, will be implemented immediately.

**Master File- Item Number, Financial Project Number, and Project Letting Date:**

**If a project number is known, the item(s) will be opened upon approval**

**and implementation. If the project number is unknown, the structure will be established, but the item will not be opened until requested.**

## 6.5 Using Generic Items

### 6.5.1 Description

Generic pay items are general-use pay items for each design group (component set of plans) that are defined by a pay item supplemental description on a project by project basis in the Trns•port system. They are intended to support one-time usage pay items or specialty situations where a standard pay item is not available, and for which it is not practical to create a new pay item. A single generic pay item number can be used many times, but only once per project/proposal; each time it is used the appropriate descriptive information must be included in Trns•port. ***Since these items are for unique situations, tracking of cost history for future estimation purposes is not necessary.***

Generic pay items are intended to facilitate the use of one-time or limited-use non-standard work items, as well as to provide more flexibility in Utilities pay item structure.

The key users of generic pay items include:

- District/Consultant Designers
- Construction Personnel
- Utility Agencies

### 6.5.2 Rules

The following rules apply in the usage of all generic pay items, including duplicate Lump sum projects:

- Must not be used if there is an existing pay item.
- Must not be used to violate or circumvent standard pay items. Exception: Generic Items for JPA Utility work.
- Must not be used to circumvent the approval process (for specification usage) on developmental items.
- Must not be used as a standard means to work-around a pay item that has been rejected for statewide usage by Central Office. (For unique situations, an item rejected for statewide usage may be used as a one-time generic pay item.)
- Must not to be used for sole-sourcing of materials/methods for items of work.
- Must not be used to circumvent the pay item request process if the pay item should be opened for statewide usage.
- Must be supported by a technical special provision and/or plan details (drawings or notes) that include clear definition of work, materials, measurement, and payment.
- Must be loaded in Trns•port under the appropriate category.

### 6.5.3 Roles

It is important that everyone involved in the pre-letting and post-letting processes understands and fulfills their respective responsibilities regarding generic pay items:

**Designer** – Designers are responsible for determining if a generic pay item is needed, developing the technical special provision (or ensuring it has been developed), and ensuring that all necessary details are included in the contract documents.

**District Estimates Staff** – District Estimates Staff are responsible for determining if a standard pay item should be requested for statewide usage. If a Generic Pay Item is deemed appropriate, the District Estimates Staff is responsible for entering the appropriate information into Trns•port PES.

**Central Office Project Review Team** – The CO Project Review staff will perform a quarterly Quality Assurance review of generic pay items after the letting. They will not perform a Quality Control review of generic pay items prior to the letting.

The quarterly review will be completed as follows:

- Run the Pay Item Future Search report to determine if any generic pay items were used during the previous quarter;
- Check for proper details and plan notes in the contract documents;
- Check for correct information in Trns•port:
  - Verify that the description of the generic pay item has a Proposal Supplemental Description, with unit of measure;
  - Verify that generic items have been loaded in the correct category;
- Coordinate with the responsible design office if usage of generic pay item is questionable (usage does not appear to abide by the usage "Rules" as described in this document).

### 6.5.4 Process

The process that is to be followed when generic pay items are used is as follows:

1. District identifies work that is appropriate for a generic pay item, but must not violate the rules;
2. Designer includes all supporting details for the generic pay item in the contract documents;
3. Designer loads generic pay item into Trns•port via the Designer Interface, and supplies the District Estimates staff with the pay item supplemental description.
4. District Estimates staff loads supplemental description and units for generic pay item into Trns•port (Designers do not have access to this description field in PES via the Designer Interface).

### 6.5.5 Quality Control & Quality Assurance

**Quality Control:** Districts assume all responsibility for proper usage of generic pay items. No approvals from Central Office will be required; no Quality Control reviews will be performed by Central Office.

**Quality Assurance:** Quarterly post-letting reviews of generic pay items will be performed by the Central Office Project Review team. The team will check for:

- Supplemental Proposal Description (clearly representing the item of work), with unit of measure, has been loaded in Trns•port; and
- Complete documentation (drawings and/or specifications) is included in the contract package.

The responsible Central Office Design personnel may be consulted to verify appropriate usage.

### 6.5.6 Pay Item Structure & Description

Generic pay items are structured as:

0000-AAA-BBB
AAA = Design Group/Trns•port Category (100 for Structures, 200 for Roadway, etc.)
BBB= Sequential Number that can be re-used

Note: Zeros are hard-coded; they are NOT blanks.

There are a minimum of 10 generic pay items available in each Trns•port design group. If additional generic items are needed, they can be requested through Central Office Design, and will be opened through an expedited process without delay.

The default unit of measure (in Trns•port) for all generic pay items is ZZ. The actual unit of measure must be keyed into Trns•port with the project-specific description being added at the end of the Supplemental Proposal (Pay Item) Description.
Example:

```
0000-600-  1   LANDSCAPE DESIGN GROUP— GENERIC PAY ITEM1 (SMALL TREE TRIMMING — EA)        ZZ
```

**Trns•port PES:** The Supplemental Proposal (Pay Item) Description and unit of measure are entered into PES as follows:

By default, the Description field will be filled with the generic description that is associated with the pay item number in the master pay item list; the default unit of measure will be ZZ. While the designer may enter the pay item number and quantity, it is the District Estimates Office's responsibility to enter the Supplemental Proposal Description and actual unit of measure, as shown in parentheses in the example above.

**Non-Utilities Pay Item**: When using a generic pay item for non-Utilities work, caution must be taken to ensure that a standard pay item is not appropriate for the conditions. Refer to the rules in 6.5.2. In unique or special situations, generic pay items can be used for non-Utilities work to:

- Specify details of a lump sum pay item:

```
0580-  1-  1    LANDSCAPE COMPLETE - SMALL PLANTS     LS
0000-600-  1    LANDSCAPE DESIGN GROUP– GENERIC PAY ITEM1   (AZALEAS- EA)    ZZ
```

- Include a one-time usage item, or an item that is unique to the project:

```
 0000-200-  1   ROADAY DESIGN GROUP– GENERIC PAY ITEM1 (LARGE BLUE WIDGET – EA)
ZZ
```

- Generic items must **NOT** be used for non-Utilities work to specify a size on pay items for which a range of sizes is available:

```
0430-173-101    PIPE CULVERT OPTIONAL MATERIAL, ROUND-SHAPE,  0-24", GUTTER
                DRAIN   LF
0000-200-  1    ROADAY DESIGN GROUP– GENERIC PAY ITEM1 (PIPE CULVERT OPT MATERIAL,
                ROUND, 18", GUTTER DRAIN)    LF
```

**JPA Utility Pay Items:** Generic pay items can potentially provide greater flexibility for Utilities projects. They can be used to:

- Specify a pipe size when the standard pay item is for a size range:

```
 1050- 11-424  UTILITY PIPE, F&I, DI/CI, WATER/SEWER, 8-19.9"         LF
 0000-700-  1  UTILITY DESIGN GROUP – GENERIC PAY ITEM 1 (UTILITY PIPE, F&I, DI/CI,
               WATER/SEWER, 10" - LF)          ZZ
```

- Break out fittings on items that normally have fittings included as an incidental cost of the pipe (pipe size less than 8"):

```
 1050- 11-423   UTILITY PIPE, F&I, DI/CI, WATER/SEWER, 5-7.9"         LF
 0000-700-  1   UTILITY DESIGN GROUP – GENERIC PAY ITEM 1 (UTILITY PIPE, F&I, DI/CI,
                WATER/SEWER, 6" - LF)           ZZ
 0000-700-  2   UTILITY DESIGN GROUP – GENERIC PAY ITEM 2 (UTILITY FITTINGS, F&I,
DI/CI,
                ELBOW, 6" - EA)                 ZZ
 0000-700-  3   UTILITY DESIGN GROUP – GENERIC PAY ITEM 3 (UTILITY FITTINGS, F&I,
DI/CI,
                TEE, 6" - EA)            ZZ
 0000-700-  4   UTILITY DESIGN GROUP – GENERIC PAY ITEM 4 (UTILITY FITTINGS, F&I,
DI/CI,
                CAP/PLUG, 6" - EA)            ZZ
```

- Combine fittings into one pay item when the standard pay item does not include the fittings (pipe size greater than or equal to 8").

```
 1055- 11-414   UTILITY FITTINGS, F&I, DI/CI, ELBOW, 8-19.9"  EA
 1055- 11-424   UTILITY FITTINGS, F&I, DI/CI, TEE, 8-19.9"    EA
 1055- 11-454   UTILITY FITTINGS, F&I, DI/CI, CAP/PLUG, 8-19.9"       EA
 0000-700-  1   UTILITY DESIGN GROUP – GENERIC PAY ITEM 1 (UTILITY FITTINGS,
                8-19.9" - EA)    ZZ
```

## 6.6 Inactive Items

In an effort to remove unused pay items, those items not used within a 2 year period will be labeled as "inactive" and considered for temporary and/or permanent blocking.

Opening inactive items will require that the Designer follow the instructions for opening an item (i.e. submit an e-mail with the requested information, as described above. A copy of the Tech Spec may be required). The Central Office Estimates staff will request approval from the responsible office, prior to opening. Designers should allow up to an additional 2

working days for this approval.

If an inactive item remains unused for 3 years, the Estimates Office will recommend to the responsible office that the pay item structure be blocked. Once blocked, a pay item request form must be completed in accordance with Requesting new items, as described above.

## 6.7 Pay Item Reviews

When a major specification or standards change is made, the responsible office is requested to review the pay item structure to ensure that the affected items meet the needs of Design, Construction, Maintenance, and other industries. Historical use and item averages are available, but should not be the only consideration.

As recommended with new items, the pay item structure ###-abc-def, should be used to define parameters as needed. Some factors to consider when reviewing the pay item structure:

a. What factors are most important to the Designer, Estimator, Supplier, Manufacturer, and/or Contractor? Can they be detailed in the plans? Are they included in the specification? Does it affect the price?

Note: Not all factors should be weighted equally. Sometimes the installation (labor) is more significant than the materials.

b. Are there standards/specifications for the item?

There may be 2 standard products and 8 “special” items. If the 2 standard items account for a significant percentage of applications, could the “special” items be combined under one “special” item?

Additional parameters which do not affect the price may be detailed in the plans; DO NOT create additional pay item structures for these parameters. Limited structures can be used to encourage price competition between products that perform similar functions and/or provide similar end results

## 6.8 Coordination Team

A team representing many Design & Construction Offices has been established to coordinate the review and implementation of various issues. By working together, the team is able to ensure that pay items, specifications, and standards, as well as supporting handbooks and manuals, are available in a timely manner- with a coordinated implementation plan. Design Representatives include the persons from Roadway, Structures, Specifications, Standards, and Estimates. Construction and Maintenance are also represented. When necessary, representatives from other affected offices are requested to attend.

Issues may be submitted by any office or representative, but are normally the result of changes to pay items, specifications, and/or standards. Each office’s representative is encouraged to keep the team informed of issues that may impact others. Representatives’ names and contact information are listed in Chapter 5. When proposing major changes to

the pay item structure, specifications or standards, please coordinate with the contact person(s) listed for the affected items.

Issues brought to the attention of the C-Team will be evaluated and processed on a "case-by case" basis. Issues with minimal impact on others are noted, with little or no further C-Team activity. Issues with extensive impact may be assigned to a committee for further investigation. The result of C-Team activity should be a recommended implementation plan, complete with a brief history and resulting changes. Implementation will be scheduled to coincide with Specification, BOE, Standard, and Manual updates, when possible.

The State Estimates Office compiles information resulting from C-Team recommendations for the Summary of Major Changes included with each edition/update to the Basis of Estimates. Managers of the affected offices approve issues included in the summary. Overall approvals, from the Directors of the Office of Design and Highway Operations, are also included.

## 6.9 Developmental Pay Items / Trial Pay Items

When an item is recommended for implementation while details are under review (specifications, standards, policy, etc.) a developmental pay item may be assigned. Developmental items are created for limited use, for a limited period of time, while the item is under review. A monitor will be assigned for each Developmental Item.

Developmental pay item numbers will be assigned as follows: (year)-(section)-(sequential use). The monitor's name will be included with the structure. Any problems or concerns with these items, from either Design or Construction, should be directed to the monitor, in writing.

Contact the monitor prior to using a Developmental Pay Item. If the monitor approves the item for use, the monitor will e-mail the central offices of Design, Specifications and Estimates approving the use of that trial pay item number with specifications dated mm/dd/yy for a specific project.

Upon completion of the specification, standard, and/or policy change(s), the monitor will recommend that the item be opened for statewide implementation, the Coordination Team will recommend an implementation date, and a new pay item number will be assigned.

## 6.10 Related Documents

**COMPUTATION BOOKS**

The Computation Book(s) are to be prepared in accordance with the Department's directive/procedure No. 700-050-001**, Computation Methods for Design, Construction, and Final Estimates**, and accompanying handbook. Included in the procedure are instructions for documentation of Lump Sum items, Plan Quantity items, as well as final measure items. This information is available online at **www.dot.state.fl.us/construction** .

**ALTERNATIVE CONTRACTING USER'S GUIDE**

It is the intention of the Department to use various techniques on a wide range of project types in order to determine which techniques work best with each project type. The goal of this program is to reduce the cost and time overruns, and thereby reducing the impact of construction on motorists, businesses and homeowners within the transportation corridor.

Most of the alternative contracting practices involve financial incentives to expedite work. Methods include A+B Bidding, Lane Rental, Design-Build, Bonus, Liquidated Savings, and Lump Sum Projects. ***Note: For more detailed instructions, refer to the Department's Alternative Contracting User's Guide* on the Construction Office's web page at www.dot.state.fl.us/construction**

**PLANS PREPARATION MANUAL**

The Roadway Design office maintains the Plans Preparation Manual (PPM). The manual sets forth geometric and other design criteria, as well as procedure for FDOT projects. This document is now available online at www.dot.state.fl.us/rddesign

## Chapter 6 Revision History

11-22-10: Updated header dates for 2011 edition. Expanded 6.2 and 6.3 for e-mail requests.
3-10-2010: Updated 6.5.2 to expand generic pay item rules to duplicate LS projects.
12-9-2009: Inserted section 6.5 Generic Pay Items. Text is based on Estimates Bulletin 09-06, and the accompanying Guidelines for Usage of Generic Pay Items.
10-30-2009: Updated header dates for 2010 edition.
10-1-2008: Updated header dates for 2009 edition.
10-1-2008: Updated text to make the pay item request form optional. Complete information may be submitted by e-mail.

# BOE

## Basis of Estimates

# *Chapter 7*
# *Design Tools*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 7
## Design Tools

## 7.1 General Information

Detailed plan notes and/or technical special provisions must be provided by the designer for all items not covered by existing specifications. *Plan notes are not acceptable as a substitute for Technical Special Provisions.* Plan notes are intended to work *with* the specifications, and are not intended to supersede the specifications. Plan notes must not:

Change the specifications
Conflict with the specifications
Duplicate the specifications

When existing specifications are not applicable, coordinate the specification revisions with the District Specifications Office. Every effort should be made to avoid conflicts, as plan notes are overridden by some specifications and take precedence over others. In either case, plan notes must *never* conflict with specifications. Details necessary for complete information include:

Description of item
Materials
Construction and installation
Method of measurement
Basis of payment

***NOTE: Refer to the Plans Preparation Manual (Topic 625-00-006) for additional guidelines on using plan notes. It is located online at http://www.dot.state.fl.us/rddesign/default.htm* Contact the Roadway Design Office with any questions, comments, or corrections regarding these notes**.

## 7.2 Tech Spec or Detail Flags

Several letters or “flags” are used on the Master Pay Item list and Summary of Pay Items to indicate when a Tech Spec and/or Plan detail is likely needed. Below is a current list of these flags:

T= Tech Spec and/or Plan Detail required
D= Plan Details required
M= Monitored Item
G= Generic Item
P= Permit required
A= Approvals needed

Whenever one of these flags is used, refer to the pay item details in the ***Basis of Estimates*** for additional information. A “Quick Reference” handout is provided at the end of this Chapter.

## Chapter 7 Revision History

11-23-10: Updated header dates for 2011 edition. Added color to “Quick Reference” page.
5-14-10: Updated “Quick Reference” page.
10-30-09: Updated header dates for 2010 edition.
9-16-09: Changed chapter title from Plan Notes to Design Tools. Added section for Tech Spec and other flags. Added “Quick Reference” page.
10-1-08: Updated header dates for 2009 edition.
5-28-08: Deleted notes; refer to PPM for current information for: Key Sheet Notes, Typical Section Notes, Summary of Quantities Sheet Notes, Plan and Profile Sheet Notes, Pay Item Footnotes, Drainage Map Notes, and Utility Adjustment Sheet Notes.

# BOE Quick Reference: Tech Spec or Plan Detail

Refer to BOE Chapter 7 for complete information

**Quick Questions:**

1. What is the **work to be completed**?
2. What are the **material requirements**? What are the testing criteria?
3. How is this to be **installed**? What are the performance requirements?
4. Will the item be **measured** in the field, or paid by plan quantity?
5. What work/materials are included with, or excluded from, this **payment**?

**When is a Plan Note sufficient?** When the quick questions above are answered by the specifications, a plan note is sufficient. Remember, plan details/drawings show dimensions and location; they alone are not a substitute for complete specifications.

**When is a Tech Spec Required?** If the above quick questions are not answered by the existing specifications, a tech spec is required.
The Designer is responsible for ensuring that all pay items are completely covered within the contract documents (specs, standards, and/or plans).

**A complete specification includes:**

**Description:** A Description of the work to be completed may be in the form of a drawing/plan detail, words in a specification, or both.

**Material requirements:** Materials may be identified in the specifications, design standards, by reference to ASTM or other testing criteria, or by notes in the plans. Consider long-term material requirements, such as UV protection or other coatings.

**Construction:** Either installation methods or performance requirements may be given. Some products may be installed "in accordance with manufacturer's instructions."

**Method of Measurement:** Describe how the item will be measured, as well as whether it will be paid by plan quantity or field measured.

*Many items are "furnish & install", for a complete and accepted installation. When working with "install only" items, ensure that the pick-up/delivery instructions are included. For "relocate" items, clearly identify original and final location, as well as clean-up work at the original location and incidental items needed at the final location. "Remove" items should clearly identify whether contractor takes ownership (dispose) or the Department retains ownership (stockpile- within right or way, or delivered to maintenance yard). Additional operations are explained in the* ***BOE, Chapter 10.***

*Special/Custom items should only be used when there is a significant deviation from the standard item of work; existing specs and/or standards do not apply. Complete specifications are needed. Note: Minor changes may be noted in the plans, using standard pay items, as long as conflicts are not created within the contract documents. Coordinate spec changes with the District Specifications Office.*

**Basis of Payment:** Payment is often "full compensation for all work specified" for a complete and accepted installation.

# BOE

## Basis of Estimates

*Chapter 8*

*Forms*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 8
# FORMS

## CADD Forms/Sheets/Cells are maintained by the State Engineering/ CADD Office at http://www.dot.state.fl.us/ecso/default.htm

## COMP Forms are maintained by the State Construction Office at http://www.dot.state.fl.us/construction/formsonl/Forms_on.htm

## For information regarding these forms, please contact these offices directly.

## 8-1 Introduction

Support information for CADD/Comp forms is now located within Section 1 of the Construction Office's handbook **Computation Methods For Design, Construction & Final Estimates Handbook** located at: http://www.dot.state.fl.us/construction/ Manuals/finalest/newcompbook/ NewSampleCompbook.shtm on the internet. Please refer to this handbook for the latest information on both CADD and Comp book forms.

The forms referenced in this section were developed by the Department of Transportation to serve the needs of Design, Construction and Estimates personnel. In Design, they are used to record calculations and tabulations for plan quantity. Construction personnel must verify the original quantity or modify it to reflect what was constructed, and enter a tentative final pay quantity. Estimates personnel must check both the original or plan quantity, versus the final quantity, and substantiate what quantity is to be paid to the contractor in agreement with all specifications and Department policies.

It is MANDATORY that each pay item be documented. **When two or more forms are available, the Designer should select the best form (CADD or COMP) to document the pay item quantity, based on project conditions.** For example, a simple area of turf may be documented in a CADD summary box in the plans. A complex area of turf should be shown in the plans with detailed quantity calculations documented in the comp book. DO NOT use both forms, as this duplication of effort causes additional work for designers, reviewers, estimators, and others.

There are three groups of forms applicable for estimate purposes: Computation Book Forms, Plans Forms, and Miscellaneous Forms. Computation Book forms are maintained by the State Construction Office, Final Estimates Section. Plans forms are maintained by the Engineering CADD Systems Office, with input from affected Design Offices. The State Estimates Office, Engineering Support Section, maintains miscellaneous Forms. Web links to these forms are included with each group.

DISCLAIMER: The information contained within this Section is for information/reference

purposes only. The intent is to provide a brief summary of the forms referenced by specific pay items. Current forms are available from the responsible office, as noted above. Any questions, comments, or other correspondence related to forms should be directed to the responsible office.

## 8.2 Computation Book Forms

The forms assembled in the Computation Book provide a simple and logical basis of documentation for the Summary of Pay Items Sheet in the contract plans. The calculations required for different forms, range from tabulations of “each items” or “lump sum items” to complex area or volume calculations. The designer should use the form recommended for each item calculated or tabulated, if practical.

| ***Form Number*** | ***Form Title*** |
|---|---|
| | |
| 700-050-01 | Area Computations |
| 700-050-02 | Curb and/or Gutter Computation |
| 700-050-03 | Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computations |
| 700-050-04 | Volume Measure Items |
| 700-050-05 | Lump Sum Quantities |
| 700-050-06 | Weight Measure or Liquid Volume Computations |
| 700-050-07 | Concrete & Reinforcing Steel Computations |
| 700-050-08 | Piling Tabulation |
| 700-050-09 | Linear Measurement Computation with Components |
| 700-050-10 | Computation Book Pay Item Summary Sheet |
| 700-050-11 | Computation Book Pay Item Summary and Certification Sheet |
| | ***The following are Final Estimates Site Source Records*** |
| 700-050-50 | Off Duty Police Officer |
| 700-050-51 | Daily Log Sheet, Maintenance of Traffic |
| 700-050-52 | Daily Log Sheet (Striping) |
| 700-050-54 | Daily Report of Truck-Measured Material |
| 700-050-55 | Daily Log Sheet for Tracking Grassing Items |
| 700-050-56 | Daily Log Sheet for Miscellaneous Items |
| | |
| 700-050-62 | Contractor’s Certified Invoice, Maintenance of Traffic Sheet |

**For questions or comments regarding these forms, please contact the State Construction Office, Final Estimates Section. Contact information is located in the introduction section of this handbook.**

Forms are available in .pdf format from the Office of Forms and Procedures at http://www.dot.state.fl.us/proceduraldocuments/ Search by Number, Office (Construction) or Title.
To retrieve forms from the FDOT CADD software, use the bar menu. Contact your CADD Manager for details and software updates.

## 8.3 Plans Forms (CADD-Generated Summary and Tabulation Sheets and Boxes)

Plans Forms are CADD-generated. They provide the designer with a simple and logical format for summarizing quantities by the type of item. These forms contain spaces for recording both original design quantities and final "as built" quantities.

| **Summary and Tabulation Sheets and Boxes**<br>Refer to CADD software for current cell names and titles |
|---|
| Pole Data Sheet (Sheets 1 and 2) |
| Tabulation of Quantities * |
| Summary of Pay Items |
| Summary of Drainage Structures |
| Summary of Guardrail |
| Summary of Ditch Pavement and Performance Turf- Sod |
| Summary of Fencing, Type A, Type B |
| Summary of Litter Removal and Mowing |
| Summary of Mailboxes |
| Summary of Earthwork |
| Summary of Performance Turf- Sod |
| Summary of Side Drain and Mitered End Sections (Without Offset and Flow Line) |
| Summary of Sheeting |
| Summary of Turnouts |
| Summary of Underdrain |
| Summary of Gravity Wall |
| Summary of Flood Data |
| Cross Drain Optional Materials Tabulation (With Flow Line) (Sheets 1 & 2) |
| Optional Materials Tabulation (without Flow Line Changes) (Sheets 1 & 2) |
| Summary of Edge Drains |
| Summary of Sidedrain and Mitered End Sections (With Offset and Flow Line) |
| Summary of Miscellaneous Asphalt |
| Summary of Permanent Crash Cushions |
| Note: Design Standard Summary Tables may also be applicable. |

***** The Tabulation of Quantities format shall be used for the following:

1. Signalization Plans
2. Signing and Pavement Marking Plans
3. Lighting Plans
4. Landscaping Plans
5. Utility Joint Project Agreement Plans
6. Other items, as indicated in the Basis of Estimates Handbook.

**CONTACT INFORMATION: For questions or comments regarding these forms, please contact the Engineering CADD Systems Office.** To retrieve CADD forms, visit the Engineering/CADD Systems Office web site at: http://www.dot.state.fl.us/ecso/default.htm

## 8.4 Quantity Manager & Computation Book (A Note from the CADD and Construction Offices)

When the Designer utilizes the Department's Quantity Manager Tool within MicroStation/GEOPAK, the data that is depicted on the Computation Sheets may not utilize the whole form. The data shown on the Computation Sheets may only fill a

portion of the actual form, and not display the whole form with blank lines. This will be an acceptable format, as the data depicted on the Computation Sheets should be complete. The first page will continue to provide a signature block for plan quantity items, as well as the area of notes for over/under runs, and the extra notes below that. The remainder of the sheets will provide quantities for the individual sheets. By utilizing the Quantity Manager tool in GEOPAK, the Designer will eliminate potential errors in data transfer and transposition of numbers by being automated.

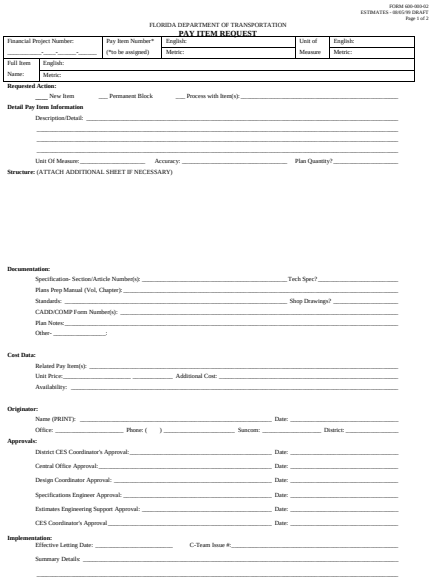
## 8.5 Forms Selection and Documentation

Forms and Documentation information associated with each pay item is based on common use of the pay item. **The designer should always consider project conditions when choosing a summary sheet or form.** The designer should also consider whether tabulation information in the plans would be beneficial to the contractor when preparing a bid; comp books are not available for bidding purposes. Below is a summary of forms and documentation for various types of items:

| **Example Items (Not intended to be a complete list)** | **Initial Form & Documentation message** | **Notes** |
|---|---|---|
| **Component Summaries**<br>-Drainage Optional Materials and Drainage Structures<br>-Signing & Pavement Marking Materials<br>-Signalization/ Mast Arms<br>-ITS<br>-Lighting<br>-Landscape<br>-Irrigation System<br>-Utilities | Tabulation of Quantities sheet in the plans, located behind component plans key sheet | Preliminary “P” quantitity is entered in the plans by the designer.<br>Final “F” quantities are entered during construction by the engineer. |
| **Summary of Quantities**<br>-Guardrail<br>-Permanent Crash Cushions<br>-Fence<br>-Turnouts<br>-Sod*<br>-Ditch Pavement<br>-Side Drains & Mitered End Sections^<br>-Underdrain<br>-Earthwork*<br>-Litter Removal & Mowing | Specific CADD summary boxes.<br><br>Detail quantities by location.<br><br>*Sod and Earthwork may be documented with a CADD or COMP form, based on project conditions.<br>^Drainage structures may be detailed in Summary of Drainage Structures | Preliminary “P” quantitity is entered in the plans by the designer.<br>Final “F” quantities are entered during construction by the engineer. |
| SF, SY items | **700-050-01**<br>Area Computations and Continuation | |
| Curb & Gutter Items | **700-050-02**<br>Curb /Gutter Calculations and Continuation | |

| | | |
|---|---|---|
| MOT Items<br>Assembly, Each, Each Day items<br>LF, Mile items | **700-050-03**<br>Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computations and Continuation | |
| CY items (see -07 form for some concrete items) | **700-050-04** Volume Measure Items and Continuation | |
| Lump Sum Items | **700-050-05** Lump Sum Quantities or **LS Tabulation** | Form selection determined by item. Some details may be needed in the plans, i.e. special detours |
| LB, GA items | **700-050-06** Weight Measure or Liquid Volume Computations and Continuation | |
| Concrete & Steel for bridges | **700-050-07** Concrete & Reinforcing Steel Computations and Continuation | |
| Piling Items | **700-050-08** Piling Tabulation and Continuation | |
| LF, Mile items | **700-050-09** Linear Measurement Computation with Components and Continuation | |
| NA | **700-050-10** Item Computation Book Pay Summary & Certification Sheet | This form is used by construction only. |

# 8.6 Estimates Forms



FORM 600-000-02
ESTIMATES – 08/05/09 DRAFT
Page 1 of 2

FLORIDA DEPARTMENT OF TRANSPORTATION

**PAY ITEM REQUEST**

| Financial Project Number: | Pay Item Number* | English: | Unit of Measure | English: |
|---|---|---|---|---|
| _____-_____-_____-_____ | (*to be assigned) | Metric: | | Metric: |
| Full Item Name: | English: | | | |
| | Metric: | | | |

**Requested Action:**

____ New Item ___ Permanent Block ___ Process with Item(s): _____

**Detail Pay Item Information**

Description/Detail: _____

_____

_____

_____

Unit Of Measure: _____ Accuracy: _____ Plan Quantity? _____

**Structure:** (ATTACH ADDITIONAL SHEET IF NECESSARY)

**Documentation:**

Specification- Section/Article Number(s): _____ Tech Spec? _____

Plans Prep Manual (Vol, Chapter): _____

Standards: _____ Shop Drawings? _____

CADD/COMP Form Number(s): _____

Plan Notes: _____

Other: _____;

**Cost Data:**

Related Pay Item(s): _____

Unit Price: _____ _____ Additional Cost: _____

Availability: _____

**Originator:**

Name (PRINT): _____ Date: _____

Office: _____ Phone: ( ) _____ Suncom: _____ District: _____

**Approvals:**

District CES Coordinator's Approval: _____ Date: _____

Central Office Approval: _____ Date: _____

Design Coordinator Approval: _____ Date: _____

Specifications Engineer Approval: _____ Date: _____

Estimates Engineering Support Approval: _____ Date: _____

CES Coordinator's Approval _____ Date: _____

**Implementation:**

Effective Letting Date: _____ C-Team Issue #: _____

Summary Details: _____

_____

## PAY ITEM REQUEST
600-000-02

This form is used by designers and consultants when a project requires the use of a pay item that is not defined in the pay item structure. Refer to Chapter 6 for more details. Note: This form is optional; required information may be sent via e-mail, per Chapter 6.

## Chapter 8 Revision History

11-10-10: Updated header dates for 2011 edition. Updated Construction Office web links. Changed font size from 10 pt to 12 pt.
11-8-10: Inserted 8.5 to better explain Forms and Documentation. Renumbered Estimates Forms from 8.5 to 8.6.
10-30-09: Updated header dates for 2010 edition.
10-6-08: Updated header dates for 2009 edition.
10-6-08: Updated pay item request form information, per Chapter 6. Use of the form is optional.
5-14-08: Inserted 8.4, note from Construction and CADD Offices. Requested by Sherry Valdes, State Construction Office & Kenny Rudd, District 3 CADD Office.

# BOE

## Basis of Estimates

# *Chapter 9*
# *TRNS*PORT Designer*
# *Interface & Reports*

State Specifications and Estimates Office
Estimating Systems Support Section

# Chapter 9
# WEBGATE: TRNS*PORT DESIGNER INTERFACE & REPORTS

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- Item Average Unit Cost
- Custom Reports

## 9.1 General

**NOTE:** New software is under development to replace the current client-server Trnsport modules described below. The new software is currently called "**webTrnsport**". Beta testing is anticipated for Spring 2011, with implementation in Summer 2011. Additional information will be posted, as it becomes available.

### 9.1.1 Intro to the TRNS*PORT Suite

TRNS*PORT is a suite of programs owned by AASHTO (American Association of State Highway Transportation Officials). Many states around the country use this suite of programs for their transportation contracts. The TRNS*PORT programs used by FDOT include:

PES: Proposal Estimating System
CES: Cost Estimating System
LAS: Letting and Award System
SiteManager

### 9.1.2 Levels: Proposal, Project, Category, and Pay Item

TRNS*PORT data is organized into several levels. Starting at the lowest level, **pay items** are used to pay for a given item of work, as defined in the plans and/or specifications. Pay Items may include materials, equipment, and/or labor to complete the defined work. Multiple pay items may be included in a **category** of work. Categories include Structures, Roadway, Signing, Lighting, etc. For each category of work, a component set of plans is usually provided. A **project** may include one or more categories of work, within a defined geographic area. For example, a project may include a bridge (structure), resurfacing and drainage improvements (roadway), and related striping (signing and pavement markings). When ready for letting, one or more projects may be combined in a **proposal**. The proposal includes any additional components (letting, award, and execution information) necessary for the contract.

### 9.1.3 Training & Helpful Hints

Training is available from the State Specifications and Estimates Office, Engineering Systems Support section. Dates are scheduled at the District Offices, when requested. Please contact your District Estimates Office to request training.

Additional information and "Helpful Hints" handouts are available on the Estimates Office web pages at http://www.dot.state.fl.us/estimates/Training/training.htm

### 9.1.4 Security

Security within TRNS*PORT is managed by Control Groups (access to Projects & Proposals) and Roles (User functions).

**Control Groups:** Control Groups are used by TRNS*PORT to assign projects and/or proposals to selected users or groups. The typical designer (user) control group is CD??U525, where **CD** indicates that the project is for **C**onstruction (as opposed to Maintenance), originating in the **D**istrict. The question marks (??) are wildcard indicators

for the district number. These wildcards may be replaced by a two digit number, when the user is restricted to a single district. Finally, the last 4 digits indicate the designer's company. The District Estimates Engineer assigns projects to a company's control group. A sample Project control group might be CD03U525. Note: by using the ?? for district number in a user's control group, a designer (user) is permitted to see all projects, in all districts, which have been assigned to their company (project).

**User Control Group:** CD??A123

**Project Control Group:** CD##A123, where ## is the district number, and A123 is the company code, as defined in TRNS*PORT PES.

If you are unable to access a project, contact your District Estimates Office. In the early design phase, it is possible that the project has not been assigned to your company. In later design phases, it is possible that the project has changed control for estimating and/or letting purposes. The Project Manager and/or District Estimates Office will make arrangements to return control to designers if/when revisions are necessary. Addendums (revisions after advertisement) must be coordinated with the District Estimates Office.

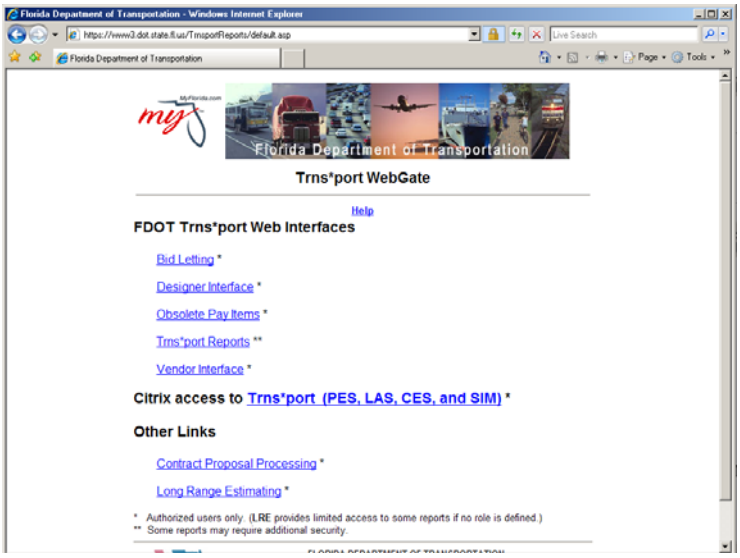
**Roles:** Most designers are given the role "Designer". This role allows the designer to access the Designer Interface, as well as to run selected reports. Non-Designers may be given the role "Public", to allow report access without the Designer Interface. Specialized roles are available to FDOT reviewers and estimators; contact the District Estimates Office for additional information.

## 9.2 Webgate

The Webgate is an internet page that serves as a doorway to the Designer Interface, Reports Menu, and other applications. It is accessed with the RACF userID and password.

### 9.2.1 Menu

The screen below shows the options available at the Webgate menu.




The Webgate (formerly known as the Designer Web pages) was developed by FDOT to assist the Designer with pay item needs. With the Webgate, the designer uses an internet connection (dial-up, DSL, cable, etc.) to access the web pages located at https://www3.dot.state.fl.us/TrnsportReports/default.asp
Additional Instructions and "Helpful Hints" handouts are located on the Estimates web pages at http://www.dot.state.fl.us/estimates/training/training.htm

### 9.2.2 Designer Interface

The Designer Interface is a tool used for loading project pay items into TRNS*PORT's Project Estimating System (PES) module.

Projects are initiated in the FDOT Financial Management (FM) System. The District Estimates staff creates a project in PES, and transfers FM information into the header. The District Estimates staff then sets the control group, based on the design firm assigned to work on the project. Additional details are provided below for using the Designer Interface.

### 9.2.3 Reports

The Reports menu allows users to select and produce reports based on current "live" information. Some of the reports are based on historical (awarded) projects, while other reports are based on future (proposed) projects. Additional details are provided below for using the Reports.

### 9.2.4 Other Applications

Additional applications, including LRE (Long Range Estimates System), are available from the Webgate menu. Note that additional "roles" may be required to fully utilize these applications. Contact your District Estimates Office for information and/or to

request access to these applications. Access will be based on the applications needed to complete the FDOT work assigned to a user and/or their employer.

## 9.3 Designer Interface

### 9.3.1 Project Access and Verification

Once assigned to a project, the designer should verify:

a) that the project exists (or that proper control has been given)
b) that all project header information is correct

If proper control is not given, the project will not appear on the designer's list of available projects. The designer should contact the District Estimates Office to request control. See below for more information on Control Groups.

### 9.3.2 Headers

TRNS*PORT information is grouped at various levels:

Proposal
Project
Category (aka Design Group)
Pay Item

Each level includes information applicable to the levels above and/or below it.

**Proposal Headers:** The District Estimates Office creates the proposal prior to the letting. The proposal is used to "link" or "string" one or more projects, for letting purposes. All projects must be assigned a proposal number prior to advertisement.

Note: The State Estimates Office recommends that the proposal be created between 90-100% plans. Creating the proposal prior to 90% plans is possible, but causes PES issues when adding or deleting pay items- section and line numbers must be re-generated within PES, prior to producing a proposal summary. Currently, the designer must request that the District Estimates Office "Generate Section and Line Numbers."

**Project Headers:** When first given access to the project, and at each design phase, the designer must verify the project header information. While much of this information is automatically transferred from FM to TRNS*PORT, the designer should check the letting date, spec year, and other information. Any errors should be immediately reported to the FDOT project manager for correction.

If project header information is incorrect, DO NOT attempt change it; this information is refreshed nightly from FM. It MUST BE CORRECTED IN FM. The designer should contact the FDOT project manager prior to making any changes. The project manager will coordinate FM changes with the responsible office(s) in the district. See below for more information on Project Headers.

**Category Headers:** From the project level of the Designer Web Pages, the designer can select, copy, and/or delete categories. At a minimum, **each component set of**

**plans (structures, roadway, lighting, etc.) must have a corresponding category.** In accordance with the Plans Preparation Manual (PPM), it is possible to have minor/incidental work from another design group included on the roadway plans, yet still have a separate category for pay items. Unused categories should be deleted.

Items are categorized by pay item range:

| Item Numbers **(Specification Sections)** | **SUBJECT/GROUP** | | TRNS*PORT Category / Design Group/ Plans |
|---|---|---|---|
| **100-102** | MOT | | 0200 Roadway |
| **103** | Temporary Structures | | |
| **104** | Erosion Control | Drainage | |
| | | Environmental | |
| **106-108** | Environmental | Coordinator | |
| | | Water/Erosion Control | |
| | | Air Quality | |
| | | Decontamination/Hazardous Materials | |
| **109** | Field Office | | |
| **110-199** | "Dirt" Earthwork | Roadway | |
| | | Erosion Control | |
| | | Topsoil/Vegetation | |
| **200-299** | Base Courses | | |
| **300-399** | Surface Courses, Concrete Pavement | | |
| **except 346-347** | Concrete | | 0100 Structures or 0200 Roadway |
| **400-499** | Structures | | 0100 Structures |
| **except 425-449** | Drainage Structures | | 0200 Roadway |
| **500-515** | Incidental Construction- Structures | | 0100 Structures |
| **516-559** | Incidental Construction- Roadway Items | | 0200 Roadway |
| **560-569** | Incidental Construction- Structural Paint | | 0100 Structures |
| **570-599** | Incidental Construction- Turf & Landscaping | | 0200 Roadway or 0600 Landscaping |
| **600-699** | Traffic Control Devices (Signals) | | 0500 Signals |
| **700-714** | Traffic Control | | 0300 Signing |
| **715** | Traffic Control- Lighting | | 0400 Lighting |
| **720-740** | Incidental Construction- Other | | 0200 Roadway |
| **741-749** | Incidental Construction- Traffic Monitoring (TMS) | | |
| **750-770** | Incidental Construction- Other | | |
| **780-789** | Intelligent Transportation Systems (ITS) | | 0550 ITS |
| **800-899** | Mass Transit (Railroad) | | 0900 Mass Transit |
| **1000-1999** | Utilities | | 0100 Structures |

NOTE: While pay item ranges are generally grouped by category, some items may be used in multiple categories. Refer to the specific items for details.

**Bridge Category Header:** The bridge header requires information specific to each structure. **Each bridge must be loaded into a separate category**, with details specific to that bridge. With each bridge category, the Designer Interface requires that the bridge

category header information, specifically the bridge ID, be entered prior to loading/editing pay items. The following fields must be completed:

**Alternate Code:** leave blank unless using alternate structures. Contact your District Estimates Office for assistance when considering alternate structures.

**Bridge Length (feet):** Enter the total bridge length, not including approach slabs.

**Bridge Width (feet):** Enter the total bridge deck width, from outside to outside of traffic railing. For bridges with variable width, divide the total bridge deck area, outside to outside, by the length to obtain the average width.

**Number of Spans:** Enter the correct number

**Bridge Type:** Select the appropriate type.

*Note: As of April 2005, the list of bridge types and the corresponding definitions are under review. Contact your District Estimates Engineer if assistance is needed. An updated list will be included with the October 2005 update.*

**Bridge ID:** Enter the valid bridge number. For bridge replacements, use the new bridge ID (replacement) number, not the old number.

Note that the Structures Detailing Manual (also referenced by the PPM) recommends that the bridge ID be obtained in the early design phase. By phase 2 and phase 3 submittals, as defined in the PPM, this information must be known in order to correctly complete the TRNS*PORT pay item information.

**Begin/End Termini:** Not used.

**Superstructure Type:** Select the appropriate type; for box culverts, select “none”.

**Substructure Type:** Select the appropriate type; for box culverts, select “none”.

**Foundation Type:** Select the appropriate type; for box culverts, select “none”.

**Structure Location:** Select the appropriate type.

**Structure Work Type:** Select the appropriate type; for pedestrian overpass, select “Miscellaneous”.

**Pay Item Header:** Pay Item header information (description, unit of measure, etc.) is maintained by the State Estimates Office, Engineering Systems Support section. Any errors in the pay item header should immediately be brought to the attention of the State Estimates Office.

If the pay item description does meet the project needs, refer to Chapter 6 for Requesting a New Pay Item. Additional items can be created within 24 hours, pending approval of the specifications. See below for additional information regarding pay items.

### 9.3.3 Leading Zeros

Leading zeros for pay items are optional, except as required by the TRNS*PORT system.

**Designer Web Pages / Summary of Pay Items:** When entering English items 50- through 999 into the TRNS*PORT system, a leading zero must be added before the first group of digits, i.e. 102-  1 becomes 0102-  1. (A leading zero replaces the leading space **only** in the first group of digits.) Metric items and English Utility items are unaffected, as they already have four numbers in the first group of digits.

**Comp Book Forms:** Automated comp book forms use pay items generated by the TRNS*PORT system, and therefore will include the leading zero. (The automated comp book forms may also be used by TRNS*PORT's Site Manager module. The leading zero must be retained on these forms.)

**CADD Forms:** CADD forms, including tabulation sheets in the plans, will be accepted with or without the leading zero.

**Other Documents:** The plans, specifications, standards, and other documents, including the BOE, will continue to refer to the item numbers without the leading zero.

## 9.3.4 Alternates

Pay Item Alternates use a 3 character code to describe the Category, alternate group, and item(s) within the group. Using structures alternates as an example, category letter would be A. The first alternate group would be A, and the items for the alternates would start with 1. For bid items, with the above example, the alternate code might be:

AA1 Item 0450-999- 1
AA1 Item 0450-999- 2
AA1 Item 0450-999- 3
AA2 Item 0450-999- 4
AA2 Item 0450-999- 5

In the above example, the contractor would be required to bid either the AA1 or AA2 group, that is, AA1 group items 0450-999- 1, 0450-999- 2, and 0450-999- 3 OR AA2 group items 0450-999- 4 and 0450-999- 5.

If there is a need to consider alternate categories (rather than just alternate items), contact your District Estimates Office for assistance.

## 9.3.5 Participating/Non-Participating Field

The column labeled "Non-Part" within the designer interface screens and reports is an indicator or "flag" for those items not participating in the major funding group, as defined in PES. **Designers are no longer able to change this field.** Please consult with your District Estimates Engineer if unusual funding is anticipated.

## 9.3.6 Pay Items, TRNS*PORT Category, and Component Plans

Pay items within a category must correspond to the work shown in the component plans. For example, the signals items shown in the signals category/summary of pay items must correspond to the work shown in the signals plans.

Category totals are used for reporting purposes. Ensure that all work shown in a category uses the appropriate items for that category. Additional reminders are as follows:

For landscaping- all work must be detailed in the plans.

For structures- each bridge must be entered separately. All work associated with each structure must be entered accordingly.

For ITS- only projects identified by the State ITS office, with ITS funding, are to be entered with ITS pay items. (Signals projects without ITS funding should use signals items with signals plans, even for computerized or future ITS installations.)

For Signals- use signals pay items.

For lighting- use lighting pay items.

Note: Some items are valid in multiple categories; they include directional drilling, jack & bore. Some items are separated by category and specification; they include conduit (separate items for lighting, signals, ITS, and utilities), fiber optic, pull & junction boxes, electrical work, and foundations. Select the pay item appropriate for the category and work to be completed. Refer to the specifications for materials and installation requirements.

When a project does not have a roadway component (structures only, signals only, landscape only, etc.), the “roadway” pay items are loaded into the category that corresponds with the primary component plans. For example, Mobilization and Maintenance of Traffic are included in the signalization component plans & category of a “signalization project” without roadway plans. The pay items within a category will continue to correspond to the work shown in each of the component plans.

## 9.4 Reports

### 9.4.1 General

Many of the reports are available to any user with access to the Reports Menu. The reports listed below are generally used by the Designer, with the “Designer” role. Users with a “Public” role may not have access to all of the reports listed below.

The following definitions are important in TRNS*PORT.

Project: A single project, with appropriate Financial Project number, header information, funding, items, etc.

Proposal: One or more projects combined for the purpose of creating a contract for letting. Projects are “strung” only when combined to form a proposal. The District Estimates Office, according to district practices, will create proposals.

#### 9.4.2 Project Edit Report

The **Project Edit Report is the single most important report.** It should be run at the project level after updating any items or quantities, after an update bulletin, or after a project has been idle or “shelved” for a period of time. In addition to listing the current items and quantities, this report will provide an item check based on the proposed letting date.

### 9.4.3 Master Pay Item List

The Master Pay Item List is a list of items currently available in the TRNS*PORT PES module. It also includes valid (effective/obsolete) dates, a Tech Spec flag, and a Reference Price from LRE. Additional items are opened upon request; refer to Chapter 6 for additional information.

Note: The Reference Price is for general information only. It is based on a weighted average, with extreme high/low values removed. It should NOT be used for project estimates, without consideration of other project conditions.

### 9.4.4 Proposal Summary of Pay Items (CADD)

After the District Estimates Office has created a proposal, the Designer will be able to select a Proposal Summary of Quantities from the Reports menu. After entering the proposal number, a report (.txt format) will be sent to the CADD ftp site. The designer can download and import the file according to established CADD procedures.

***For early phase reviews (up to 90%, or until the proposal has been created)***, the Project Summary of Quantities Report must be used. (No proposal, no proposal report.) If multiple projects are anticipated to be let together, the Designer should be sure to print each project's Summary of Quantities for review. These reports may be printed on standard 8.5" by 11" paper.

***For later phase reviews (90%, or after the proposal has been created),*** the Proposal Summary of Quantities Report should be used. After the Designer submits the report from the interface menu, the output will be sent to the CADD ftp site in 5-10 minutes.

### 9.4.5 Project Summary of Pay Items

This report will print in .pdf format for a specified project. This report will be used for early phase reviews. Note: If a proposal has already been created, the proposal number will be included in the report header.

### 9.4.6 Project Item List

This report will list the items and quantities for a given project number.

### 9.4.7 Pay Item Average Unit Cost

This report will provide historical project information for specific pay items. Note: The pay items must be entered individually, rather than as a group. This report is helpful when detailed project information is needed for a specific pay item.

### 9.4.8 Item Average Unit Cost

This report provides a historical average for a pay item range, over a specified date range. This report is helpful when general price information is needed for selected pay item(s).

### 9.4.9 Custom Reports

The State Estimates Office has the ability to create and/or run custom reports for user specified criteria. Please contact your District Estimates Office if custom reports are needed.

Note: Pricing for individual projects does not require a custom report. Pricing (Authorization and Official Estimate) before the letting is completed by the District Estimates Office using the TRNS*PORT CES module. Design estimates should be project specific- based on specifications, location, market area, materials, quantity, equipment, labor, and other related factors.

## Chapter 9 Revision History

11-23-10: Updated header dates for 2011 edition. Added note to 9.1 General about

pending webTrnsport.
10-30-09: Updated header dates for 2010 edition. Updated formatting for section & subsection titles.
1-27-09: Expanded 9.3.6 to include instructions for projects without roadway component plans.
10-1-08: Updated header dates for 2009 edition.
10-1-08: Updated 9.3.6 Pay Items, TRNS*PORT Category, and Component Plans to include examples of items/category usage.

# BOE

## Basis of Estimates

# *Chapter 10*
# *Formatting Pay Items*

State Specifications and Estimates Office
Estimating Systems Support Section

# 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.

Much of the information in this Chapter begins as a Pay Item Request. Refer to Chapter 6 for information on completing the pay item request form.

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

## 10.2 Format / Legend

The pay item information shown in the online BOE is formatted as follows:

| | | | |
|---|---|---|---|
| **Pay Item Number** | **PAY ITEM DESCRIPTION** | | |
| | **Unit** | **Accuracy** | **Plan Quantity?** |
| **Notes** | **Important Notes or Dates** | | |
| **Details** | Details | | |
| **Related Items** | **Required** | **Recommended** | |
| **Forms** | **Design** | | |
| | **Construction** | | |
| **Documentation** | **Design** | | |
| | **Construction** | | |
| **References** | **PPM Chapter** | | |
| | **Standards** | | |
| | **Specifications** | | |
| | **P&DM Chapter(s)** | | |
| **TRNS*PORT Category** | | | |
| **Status** | **Tech Spec Recommended** | | |
| **Structure** | **Item Description** | **Unit** | |
| | **English Structure** | | |
| | **English Structure Notes** | | |
| **Structure Notes** | | | |

**Pay Item Number:** 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 -English, 1 -English Utilities, 2 -Metric, 3 -Metric Utilities, 9 -Special. The remaining digits (second through fourth digits), 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.

**Pay Item Description:** The Description. This description may be abbreviated on some reports, due to space constraints. The Complete (Long Description) is used whenever possible.

**Unit**: Unit of measure, as defined in Chapter 2. When secondary units are shown, they are intended for estimating purposes, and should be documented in the Comp Book or plans as instructed.

**Accuracy:** The degree of accuracy of decimal rounding for the total quantity of the item. Intermediate computations should be made to at least the next higher decimal.

**Important Notes or Dates:** Many pay items are blocked or opened with an effective letting date. Verify that the applicable dates correspond a project's scheduled letting date. TRNS*PORT PES will verify dates for selected pay items.

Important dates are normally shown in this field for 1 year after implementation of the change.

**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…", "Estimate xx items per…", and/or "Item(s)… are recommended/required when this item is used."

See errors & omissions below for an explanation of missing detail information.

**Related Items, Recommended:** Lists item numbers that are recommended, or should be considered, when using this pay item.

**Related Items, Required:** Lists item numbers that, under normal circumstances, are required when using this pay item.

**Original, Design:** Available Methods for documentation of design quantities in the plans and/or computation book, with appropriate form numbers noted.

When both a CADD and COMP book form are listed, the designer should select the appropriate form based on the item and form contents. Some forms have additional fields to detail complex lines, grades, areas, and/or other features. **Do NOT use both a CADD and COMP book form for the same item.**

**Final, Construction:** Required methods for detailed back-up calculations and documentation of final pay quantities, with appropriate form numbers noted.

**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 specifications for measurement and payment details.

**References, PPM Chapter, SDGs, Other:** *This field is currently under development.* Links are provided to applicable Plans Preparation Manual Chapter(s), Structures Design Guidelines, or other design references.

**FEPDM:** Final Estimates Preparation and Documentation Manual reference chapter number(s), when applicable.

**Standards:** Indicates the index sheet number(s) for the applicable Design Standards. When listed, 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.

**Specifications:** *This field is currently under development*. Links are provided to current Standard Specifications (Specifications Book) and/or current workbook. These links are for reference purposes only; the designer is responsible for using applicable specifications, as available from the State Specifications Office. Contact your District Specifications Office for further assistance.

**Plan Detail and/or Tech Spec recommended:** Coordinate with your District Specifications Office. If blank, a Tech Spec is not normally necessary. See Chapter 7 for additional information.

**NOTE:** If the current specifications do not appropriately cover the work necessary for a given project, a plan detail and/or Tech Spec may be necessary. Standard Specifications DO NOT normally cover “custom”, “modify”, “special”, or “relocate”, as these are project specific situations. Plan Details and/or Tech Specs will be required. Remember- complete specifications for each pay item include a description of the work, materials and/or equipment required, construction or performance requirements, method of measurement, and basis of payment.

**Status:** Indicates the status of the Item Structure. Refer to Chapter 6 for assistance with items that are not currently open in the Master File.

**TRNS*PORT Category:** This is the recommended TRNS*PORT category for normal usage of the pay item. Pay items within a category must correspond to the work shown in the component plans. Additional details are included in Chapter 9 for loading pay items into TRNS*PORT.

When an item is used outside of the recommended category, the designer and reviewer should consider whether the appropriate item is used, in accordance with the specifications (signals items used for signals work, lighting items used for lighting work, etc.)

## 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.**

**Pay Item Structure Item Description Unit**
**Pay Item Structure- Operations and other variables**
**Notes**

**Common Operations**- refer to individual items as needed:

1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust & Modify)
6 (Remove & Dispose)
7 (Remove & Stockpile)
8 (Plug & Place out of service)
9 other item specific operation, as needed

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

FURNISH: To be used ONLY with approval of ____. 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 incidental items 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 to be furnished by the Contractor.

REMOVE: Plans or specs should identify if contractor is to take ownership, stockpile, or deliver item(s) to a FDOT maintenance yard.

REMOVE & DISPOSE (Contractor takes ownership): Plans or specs should identify limits of item to be removed: incidental components, foundation, wiring, or other work.

REMOVE & STOCKPILE (DOT/maintaining agency retains ownership): Plans or specs should identify if contractor is to stockpile or deliver item(s) to a FDOT maintenance yard.

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

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.

## 10.3 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.

## 10.4 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 help identify "Where to find it…"

| **Pay Item Group/ Specification Section** | **Description, including key words for searches** |
|---|---|
| 101 | Mobilization |
| 102 | Maintenance of Traffic |
| 104 | Erosion Control |
| 110 | Clearing and Grubbing |
| 120-175 | Excavation, Embankment, and other Earthwork |
| 200s | Base Courses |
| 300-341 | Bituminous Mixtures, Milling, Superpave, Friction Courses |
| 346-347 | Portland Cement Concrete |
| 350-353 | Concrete Pavement |
| 400 | Concrete Structures |
| 415 | Reinforcing Steel |
| 425-449 | Drainage: Inlets, Manholes, Junction Boxes, Pipe, Trench Drain, Underdrain, French Drain, Edgedrain |
| 450 | Precast, Prestressed Concrete |
| 455 | Structures Foundations: Piling, Drilled Shafts |
| 470 | Timber Structures |
| 508-510 | Movable Bridges: Navigation Lights, Machinery |
| 520s | Concrete Gutter, Curb, Barriers, Traffic Separator, Sidewalk |
| 523 | Patterned/Textured Pavement |
| 530 | Riprap |
| 534 | Sound Barriers |
| 536-538 | Guardrail |
| 550 | Fencing |
| 555-557 | Directional Bore, Vibratory Plowing, Jack & Bore |
| 570-580 | Grassing, Seeding, Sodding, Landscaping, Trees, Plants |
| 600s | Signalization: Conduit, Mast Arms, Detectors, Cabinets |
| 700-705 | Signing, Delineators |
| 710-714 | Pavement Markings: Paint, Thermo |
| 715 | Lighting: Poles, Conduit, |
| 780s | Intelligent Traffic Systems (ITS) |
| 800s | Mass Transit |
| 900s | Special, Developmental, Trial Items |

## 10.5 Errors, Omissions, Comments

The Engineering Systems Support Section of the State Specifications and Estimates 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 responsible coordinator (listed in Chapter 5), 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.dot.state.fl.us/specificationsoffice/ .
While we make every effort to provide the most current information, pay items and related FDOT handbooks/manuals are continuously developing.

If an error is found with any of the BOE content, please notify the State Specifications and Estimates Office- Engineering Systems Support Section.

We appreciate your comments and suggestions.

## Chapter 10 Revision History

11-23-10: Updated header dates for 2011 edition. Added reference to Chapter 7 in 10.2, Plan Details.
10-30-09: Updated header dates for 2010 edition.
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.
10-1-08: Updated header dates for 2009 edition.

# BOE

## Basis of Estimates

*Chapter 11*

*Items 000 to 199*

State Specifications and Estimates Office
Estimating Systems Support Section

**50- A-** **DESIGN / BUILD**

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

This item to be used for Districts letting Design-Build projects. This item to be used only when identified by the District as a "Design-Build" project. Include Initial Contingency Amount under 999- 25 (2999- 25) item.

When multi-category work is called for, use the pay item structure that represents the largest percentage of the total dollars."

Forms and Documentation: Follow Design-Build Guidelines.

**Related Items** **Required** 999- 25 (2999- 25) **Recommended**

**Design Forms and Documentation**

See Details Above

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 11

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **50- A-** **DESIGN / BUILD** **LS/LS**

A= Operation
1 (Resurfacing)
2 (Roadway Construction)
4 (Bridge Construction)
5 (Buildings/Toll Facilities/Rest Areas/Service Plaza)
6 (Traffic Operations)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0 50 1 | DESIGN - BUILD, RESURFACING | LS | T | 1/1/2010 | |
| 0 50 2 | DESIGN / BUILD, ROADWAY | LS | T | 1/1/2010 | |
| 0 50 4 | DESIGN / BUILD, BRIDGE CONSTRUCTION | LS | T | 1/1/2010 | |
| 0 50 5 | DESIGN / BUILD, BUILDING / TOLL FACILITY/ REST AREA / SERVICE PLAZA | LS | T | 1/1/2010 | |
| 0 50 6 | DESIGN / BUILD, TRAFFIC OPERATIONS | LS | T | 1/1/2010 | |

## 101- 1- MOBILIZATION

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

Consists of work and operations necessary to begin work on a project. Includes moving in equipment and personnel, establishing temporary offices, safety equipment and sanitary facilities. May include surveying, bond and insurance expenses. In some cases, may consist of security services and/or expenses associated with night work.
For contracts with more than one project, the pay item for Mobilization will be shown on each project's Summary of Pay Items. An exception to this is when the contract contains a Joint Project Agreement (JPA): the Mobilization will not be shown on the Summary of Pay Items for the JPA; the cost of Mobilization will be included in the prime project.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 101

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **101- 1-** **MOBILIZATION** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0101 1 | MOBILIZATION | LS | | 1/1/2010 | |

## 102- 1- MAINTENANCE OF TRAFFIC

**Unit** LS/DA **Accuracy** Lump Sum (Day) **PlanQuantity?** yes

**Notes**

**Details**

Includes all items required to safely maintain traffic throughout a transportation work zone with minimal inconvenience to the public and fit into one of the following categories:
1) cannot reasonably be quantified;
2) cannot be addressed under current pay items;
3) are incidental to the operations necessary to safely maintain traffic throughout a work zone.
Code the second unit of measure (number of days) from the construction day estimate.

For contracts with more than one project, the pay item for Maintenance of Traffic will be shown on each project's Summary of Pay Items. An exception to this is when the contract contains a Joint Project Agreement (JPA): the Maintenance of Traffic will not be shown on the Summary of Pay Items for the JPA; the cost of Maintenance of Traffic will be included in the prime project.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 1-** **MAINTENANCE OF TRAFFIC** **LS/DA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 1 | MAINTENANCE OF TRAFFIC | LS | | 1/1/2010 | |

## 102- 2- AA SPECIAL DETOUR

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

Consists of work and materials necessary to construct a diversion (Temp Roadway). May also include temporary bridge (Acrow panel, or similar.) The quantities for major items necessary for the Special Detour shall be shown in the plans but paid for under Special Detour. Items that will be used in the Special Detour that will remain as part of the final product will be paid for under the appropriate pay item (i.e., earthwork). Show the limits of each Special Detour in the plans. Traffic control devices, warning devices, barriers, signing and pavement markings will be paid for separately.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 21600 Series- Temporary Detour Bridge

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 2- AA** **SPECIAL DETOUR** **LS/LS**

AA = Detour Number
1 (First Detour Of Several)
2 (Second Detour Of Several)
3 (Third Detour Of Several)
4 (Fourth Detour Of Several)
N (Nth Detour Of Several)
N = 1 Thru 30

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 2 1 | SPECIAL DETOUR 1 | LS | | 1/1/2010 | |
| 0102 2 2 | SPECIAL DETOUR 2 | LS | | 1/1/2010 | |
| 0102 2 3 | SPECIAL DETOUR 3 | LS | | 1/1/2010 | |
| 0102 2 4 | SPECIAL DETOUR 4 | LS | | 1/1/2010 | |
| 0102 2 5 | SPECIAL DETOUR 5 | LS | | 1/1/2010 | |
| 0102 2 6 | SPECIAL DETOUR 6 | LS | | 1/1/2010 | |
| 0102 2 7 | SPECIAL DETOUR 7 | LS | | 1/1/2010 | |
| 0102 2 8 | SPECIAL DETOUR 8 | LS | | 1/1/2010 | |
| 0102 2 9 | SPECIAL DETOUR 9 | LS | | 1/1/2010 | |
| 0102 2 10 | SPECIAL DETOUR 10 | LS | | 1/1/2010 | |
| 0102 2 11 | SPECIAL DETOUR 11 | LS | | 1/1/2010 | |
| 0102 2 12 | SPECIAL DETOUR 12 | LS | | 1/1/2010 | |
| 0102 2 13 | SPECIAL DETOUR 13 | LS | | 1/1/2010 | |
| 0102 2 14 | SPECIAL DETOUR 14 | LS | | 1/1/2010 | |
| 0102 2 15 | SPECIAL DETOUR 15 | LS | | 1/1/2010 | |
| 0102 2 16 | SPECIAL DETOUR 16 | LS | | 1/1/2010 | |
| 0102 2 17 | SPECIAL DETOUR 17 | LS | | 1/1/2010 | |
| 0102 2 18 | SPECIAL DETOUR 18 | LS | | 1/1/2010 | |
| 0102 2 19 | SPECIAL DETOUR 19 | LS | | 1/1/2010 | |
| 0102 2 20 | SPECIAL DETOUR 20 | LS | | 1/1/2010 | |
| 0102 2 21 | SPECIAL DETOUR 21 | LS | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0102 2 22 | SPECIAL DETOUR 22 | LS | 1/1/2010 |
| 0102 2 23 | SPECIAL DETOUR 23 | LS | 1/1/2010 |
| 0102 2 24 | SPECIAL DETOUR 24 | LS | 1/1/2010 |
| 0102 2 25 | SPECIAL DETOUR 25 | LS | 1/1/2010 |
| 0102 2 26 | SPECIAL DETOUR 26 | LS | 1/1/2010 |
| 0102 2 27 | SPECIAL DETOUR 27 | LS | 1/1/2010 |
| 0102 2 28 | SPECIAL DETOUR 28 | LS | 1/1/2010 |
| 0102 2 29 | SPECIAL DETOUR 29 | LS | 1/1/2010 |
| 0102 2 30 | SPECIAL DETOUR 30 | LS | 1/1/2010 |

## 102- 3- COMMERCIAL MATERIAL FOR DRIVEWAY MAINTENANCE

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

Consists of furnishing and placing suitable material which may be necessary for providing safe access to businesses and residences affected by the construction. If authorized, portions of this material may be salvaged and reused at other driveways along the length of the project.

Quantity Estimation: Use 250 cubic yards per mile (200 cubic meters per kilometer) on rural projects and 500 cubic yards per mile (400 cubic meters per kilometer) on urban projects. Use 250 cubic yards (200 cubic meters) as a minimum, unless otherwise directed by the District Construction Office.

Per the specification, "The quantity to be paid for will be the certified volume, in cubic yards, of all materials authorized by the Engineer, acceptably placed and maintained for driveway maintenance. The volume, which is authorized to be reused, and which is acceptably salvaged, placed, and maintained in other designated driveways will be included again for payment."

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-04: Volume Measure Items and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 3-** **COMMERCIAL MATERIAL FOR DRIVEWAY MAINTENANCE** **CY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 3 | COMMERCIAL MATERIAL FOR DRIVEWAY MAINTENANCE | CY | | 1/1/2010 | |

## 102- 11- SERVICE PATROL- ROAD RANGER OR SIMILAR

**Unit** MH **Accuracy** Hour **PlanQuantity?** no

**Notes**

**Details**

Used when it is determined during design that an active service patrol ("Road Ranger" or similar service) will be needed to keep traffic flowing. The Traffic Control Plan (TCP) or Technical Special Provisions should explain when and where the service patrol will be needed, as well as what type of services will be provided, and what type of service vehicle will be needed. Time shall be based on an 8 hour day.

Coordinate services with District Office(s) that may have a Road Ranger service in effect- Maintenance, Operations, Construction, or other. Do not duplicate services that are available under a separate contract. Refer to Traffic Operations web page for additional information on Road Ranger services.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 600

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 11-** **SERVICE PATROL- ROAD RANGER OR SIMILAR** **MH**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 11 | SERVICE PATROL- ROAD RANGER OR SIMILAR | MH | D | 1/1/2010 | |

## 102- 14- TRAFFIC CONTROL OFFICER

**Unit** MH **Accuracy** Hour **PlanQuantity?** no

**Notes** **Refer to 999-102 for Speed/Law Enforcement**

**Details** ***** LIMITED USE ; read details below *****

Provide uniformed traffic control officers, including marked law enforcement vehicles, to assist in controlling and directing traffic in the work zone ONLY when the following types of work is necessary on projects:
*traffic control in a signalized intersection when signals are not in use,
*when standard index no. 619 is used on Interstate at nighttime and called for in the plans,
*when standard index no. 625 or 655 are used,
*when traffic pacing is called for in the plans or approved by the Engineer, or
* when pulling conductor/cable above an open traffic lane on limited access facilities, when called for in the plans or approved by the Engineer.

The Department will include pay item 102- 14 for officers directing traffic as defined above. For Speed and Law Enforcement officers, see pay item 999-102

**Related Items** **Required** **Recommended** 999-102-xxa

**Design Forms and Documentation**
COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 600, 619, 625, 655
**Specifications** Section 102
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 14-** **TRAFFIC CONTROL OFFICER** **MH**

**Notes** Refer to 999-102 for Speed/Law Enforcement

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 14 | TRAFFIC CONTROL OFFICER | MH | T | 1/1/2010 | |

## 102- 60- WORK ZONE SIGN

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details**

Used for the purpose of informing motorists of the work zone and work zone related (i.e. temporary regulatory or temporary route) conditions that will be encountered. Tabulate the number of individual sign panels (20 square feet or less)/(1.9 square meters or less) as recorded per day for each phase of the project. When multiple signs are located together on a single or multiple posts, each sign panel will be paid for individually.

Non-standard sign panels, including Project Information Signs, (greater than 20 square feet)/(greater than 1.9 square meters) will be detailed in the plans and paid for under Maintenance of Traffic, Lump sum.

Refer to PPM (Plans Preparation Manual) Vol 1, Chapter 10 for additional information.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 60-** **WORK ZONE SIGN** **ED**

**Notes** Signs LESS THAN 20 ft² only- see details above

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 60 | WORK ZONE SIGN | ED | | 1/1/2010 | |

## 102- 61- BUSINESS SIGN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Effective January 2011, not needed for resurfacing type projects. See detail below.**

**Details**

Used to assist motorists with finding the appropriate business driveway entrance while the roadway is under construction. The quantity is based on one business sign for each business whose driveway entrance could be affected. When several businesses share a common driveway, one sign per common driveway should be estimated.

Effective January 2011: Per Index 600, Business entrance signs are intended to guide motorist to business entrances moved/modified or disturbed during construction projects. Business entrance signs are not required where there is minimal disruption to business driveways such as with resurfacing type projects.

Per the specifications, "Provide and place signs in accordance with the plans and Design Standards. The maximum sign size is 24 by 36 inches.
Use signs with specific business names on each sign. Install logos provided by business owners and approved by the Engineer. Standard Business entrance signs meeting the requirements of Index 17355 without specific business names may be used only with the approval of the Engineer."

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 61-** **BUSINESS SIGN** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 61 | BUSINESS SIGN | EA | | 1/1/2010 | |

## 102- 71- AB TEMPORARY BARRIER WALL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Included for the protection of the traveling public and workers. May be moved from one location to another on the project. Estimate length of wall needed for each phase, and then choose the maximum length anticipated for any one phase to be paid for as Temporary Barrier. Phasing in plans must indicate adequate quantity of barrier prior to calling for relocating of barrier. Add the estimated lengths for the remaining phases together and pay for under Barrier Wall (Temporary) Relocate. When this item is used, include lights or glare screen.

For example:

200 LF needed for phase 1 = 200 LF F&I
300 LF needed for phase 2 = 100 LF left in place from phase 1 (no movement; no payment) +100 LF Relocated from phase 1 +100 LF F&I
150 LF needed for phase 3 = 150 LF relocated from phase 2 (remaining quantity stockpiled; no payment)
400 LF needed for phase 4 = 300 LF relocated from earlier phase(s) or stockpile + 100 LF F&I
200 LF needed for phase 5 using phase 4 wall in existing location = 0 LF relocated (remaining quantity stockpiled, if needed for later use)
Note: No separate payment for "removal" or "stockpiling"

Maximum quantity F&I for above example: 400 LF
Relocate paid when moved to a new phase, NOT when removing or stockpiling.

QPL- Temporary barrier wall shall conform to the requirements of the pre-approved alternatives listed on the Department's Qualified Products List (QPL), unless otherwise called for in the plans.

NOTE: For bridge applications, ONLY Type K permitted.

**Related Items** **Required** 102- 79 or 102- 94-xab **Recommended** 102- 81- 1, and/or 102- 89-xxa

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** see detail

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 71- AB** **TEMPORARY BARRIER WALL** **LF**

A = Operation
1 (Furnish & Install)
2 (Relocate)

B = Material
1 (Concrete)
2 (Water filled)
3 (Low Profile Concrete)
4 (Type K) bridge applications; includes QPL approved substitutes

**Notes** Effective 1/04 letting: B= 3, 4

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 71 11 | BARRIER WALL, TEMPORARY, F&I, CONCRETE | LF | | 1/1/2010 | |
| 0102 71 12 | BARRIER WALL, TEMPORARY, F&I, WATERFILLED | LF | | 1/1/2010 | |
| 0102 71 13 | BARRIER WALL, TEMPORARY, F&I, LOW PROFILE, CONCRETE | LF | | 1/1/2010 | |
| 0102 71 14 | BARRIER WALL, TEMPORARY, F&I, TYPE K | LF | | 1/1/2010 | |
| 0102 71 21 | BARRIER WALL, TEMPORARY, RELOCATE, CONCRETE | LF | | 1/1/2010 | |
| 0102 71 22 | BARRIER WALL, TEMPORARY, RELOCATE, WATERFILLED | LF | | 1/1/2010 | |
| 0102 71 23 | BARRIER WALL, TEMPORARY, RELOCATE, LOW PROFILE, CONCRETE | LF | | 1/1/2010 | |
| 0102 71 24 | BARRIER WALL, TEMPORARY, RELOCATE, TYPE K | LF | | 1/1/2010 | |

## 102- 73- TEMPORARY GUARDRAIL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For Temporary applications, use in accordance with Index 400. Payment includes installation, maintenance, and removal of guardrail.

For permanent applications, refer to 536 items.

Per the specification, "The quantity to be paid for will be the length, in feet, of temporary guardrail constructed and certified as installed/used on the project. The length of a run of guardrail will be determined as a multiple of the nominal panel lengths."

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 400

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 73-** **TEMPORARY GUARDRAIL** **LF**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 73 | TEMPORARY GUARDRAIL | LF | | 1/1/2010 | |

## 102- 74- A TEMPORARY BARRICADE/CHANNELIZING DEVICE

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details**

Included for the protection of workers and the public from hazards within the traffic control zone. The designer is NOT to add plan notes specifying one type of barricade/channelizing device (Type I, II, DI, VP, or Drum).

DI = Direction Indicator Barricade, shown on Index 600.
VP= Vertical Panel

Estimate for each Traffic Control Plan phase based on the type of operation and duration anticipated as follows: Quantity= (Length of Setup / Spacing) X Phase Duration.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 74- A** **TEMPORARY BARRICADE/CHANNELIZING DEVICE** **ED**

A = Type
1 (Types I, II, DI, VP & Drum)
2 (Type III- 6')

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 74 1 | BARRICADE, TEMPORARY, TYPES I, II, DI, VP & DRUM | ED | | 1/1/2010 | |
| 0102 74 2 | BARRICADE, TEMPORARY, TYPE III, 6' | ED | | 1/1/2010 | |

## 102- 76- ADVANCE WARNING ARROW PANEL

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details** Included for the purpose of providing advanced warning of a lane closure. (Not intended for lane shifts.) Estimate the number needed for each Traffic Control Plan phase times the phase duration.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 76-** **ADVANCE WARNING ARROW PANEL** **ED**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 76 | ADVANCE WARNING ARROW PANEL | ED | | 1/1/2010 | |

## 102- 77- HIGH INTENSITY FLASHING LIGHT, TEMPORARY, TYPE B

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details** Included as a safety device, to draw attention to the warning sign. The lights shall be mounted on the first advanced post mounted warning sign where only one sign is used, and on the first and second advanced post mounted warning signs where two or more signs are used. This applies to all approaches to any work zone. When this item is used, item 102- 60 (2102- 60) must be used.

Refer to the PPM for Warning Lights.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Ch 10.

**Trns·port**

**Other Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 77-** **HIGH INTENSITY FLASHING LIGHT, TEMPORARY, TYPE B** **ED**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 77 | HIGH INTENSITY FLASHING LIGHTS, TEMP, TYPE B | ED | | 1/1/2010 | |

## 102- 78- TEMPORARY RETROREFLECTIVE PAVEMENT MARKER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Class A, B, D, or E RPMs used to supplement pavement markings, as shown in Index 600.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 600, 17352

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 78-** **TEMPORARY RETROREFLECTIVE PAVEMENT MARKER** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 78 | TEMPORARY RETROREFLECTIVE PAVEMENT MARKER | EA | | 1/1/2010 | |

## 102- 79- TYPE C STEADY BURN LIGHT, TEMPORARY, BARRIER WALL MOUNT

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details**

These lights are placed on Barrier Wall (Temp), excluding low profile. The standard spacing will be:
50' on centers for transitions, 100' on centers for curves, 200' on centers tangents (15 meters on centers for transitions, 30 meters on centers for curves, 60 meters on centers for tangent);
Curves that are flat enough to maintain a normal 2% cross slope shall have spacing equal to that of a tangent.
QPL- Temporary barrier wall mount lights shall conform to the requirements of the pre-approved alternatives for temporary concrete or water filled barrier wall listed on the Department's Qualified Products List (QPL).

Barrier mounted wall lights will not be required when glare screen is used.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** see detail

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 79-** **TYPE C STEADY BURN LIGHT, TEMPORARY, BARRIER WALL MOUNT** **ED**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 79 | LIGHTS,BARRIER WALL MOUNT,TEMP,TYPE C,STEADY BURN | ED | | 1/1/2010 | |

## 102- 81- 2 TEMPORARY CRASH CUSHION -GATING

**Unit** LO **Accuracy** Location **PlanQuantity?** no

**Notes**

**Details**

Formerly known as "Impact Attenuator Modules"
Roadway Design permission needed before "sand barrels" may be used; requires special design
QPL- Temporary Gating Crash Cushions shall conform to the requirements of the pre-approved alternatives listed on the Department's Qualified Products List (QPL), unless otherwise called for in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 417, see detail

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 81- 2** **TEMPORARY CRASH CUSHION -GATING** **LO**

**Notes** Contact Cheryl Adams prior to use. Project specific conditions must be reviewed.

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

## 102- 89- A TEMPORARY CRASH CUSHION

**Unit** LO **Accuracy** Location **PlanQuantity?** no

**Notes**

**Details**

Payment will be made based on each location of the crash cushion/attenuator.
Redirective cushions selected by contractor, subject to Design Standards. Restricted options to be detailed in plans and documented in project file.
QPL- Temporary Redirective Crash Cushions shall conform to the requirements of the pre-

approved alternatives listed on the Department's Qualified Products List (QPL), unless otherwise called for in the plans.

Formerly known as "Impact Attenuators"

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** See detail; Index No. 415, 430

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 89- A** **TEMPORARY CRASH CUSHION** **LO**

A = Type
7 (Redirective Option)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 89 7 | TEMPORARY CRASH CUSHION, REDIRECTIVE OPTION | LO | | 1/1/2010 | |

## 102- 94- AB GLARE SCREEN

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

See barrier wall detail for measurement. This item is used with Temporary Barrier Wall (Concrete).

Refer to specification from QPL requirements.

When glare screen is used, barrier mounted lights will not be required.

**Related Items** **Required** 102- 71-xab **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 94- AB** **GLARE SCREEN** **LF**

A = Operation
Blank (Furnish and Install)
1 (Relocate)

B = Wall Material
1 (Concrete)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 94 1 | GLARE SCREEN, TEMPORARY, F&I, WALL MATERIAL-CONCRETE | LF | | 1/1/2010 | |
| 0102 94 11 | GLARE SCREEN, TEMPORARY, RELOCATE, WALL MATERIAL- CONCRETE | LF | | 1/1/2010 | |

## 102- 98- A BARRICADE TYPE III- TO REMAIN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 98- A** **BARRICADE TYPE III- TO REMAIN** **EA**

A = Size
2 (6 Feet)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 98 2 | BARRICADE TYPE III -TO REMAIN, 6' | EA | | 1/1/2010 | |

## 102- 99- PORTABLE CHANGEABLE MESSAGE SIGN- TEMPORARY

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details**

Should be considered for use in complex, high-density work zones. Messages must be simple, with a minimum number of words and lines, and should require no more than two displays of no more than three lines each. The Traffic Control Plan (TCP) shall include the location and messages to be displayed. Refer to the PPM for message guidelines and acceptable abbreviations.

Estimate the number needed for each traffic control plan phase, times the number of days needed (phase duration). May be used 14 days before contract time begins, as authorized by the Engineer. Not to be used when standard signs are available. Refer to the Plans Preparation Manual for proper usage.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Ch 10

**Trns·port**

**Other Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102- 99-** **PORTABLE CHANGEABLE MESSAGE SIGN- TEMPORARY** **ED**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102 99 | PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY | ED | | 1/1/2010 | |

## 102-104- A TEMPORARY TRAFFIC CONTROL SIGNAL

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details** Estimate based on the number of completed installations (each signalized location) in operation on the project.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 606

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102-104- A** **TEMPORARY TRAFFIC CONTROL SIGNAL** **ED**

A = Type
1 (Portable)
2 (Fixed)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102104 1 | TEMPORARY TRAFFIC CONTROL, PORTABLE SIGNAL | ED | | 1/1/2010 | |
| 0102104 2 | TEMPORARY TRAFFIC CONTROL, FIXED SIGNAL | ED | | 1/1/2010 | |

## 102-107- TEMPORARY TRAFFIC DETECTION, INTERSECTION

**Unit** DA **Accuracy** Day **PlanQuantity?** no

**Notes**

**Details** Identify intersections where required. Estimate number of intersections times number of contract days. Do not include "new" intersections. Payment will be for number of days Temp Traffic Detection Technology is used and authorized by Engineer.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102-107-** **TEMPORARY TRAFFIC DETECTION, INTERSECTION** **DA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102107 | TEMPORARY TRAFFIC DETECTION, INTERSECT | DA | | 1/1/2010 | |

## 102-111 to -114 PENDING: TEMPORARY SIGNALIZATION

**Unit** **Accuracy** **PlanQuantity?**

**Notes** **PENDING CHANGES- DO NOT OPEN ITEMS UNTIL SPECIFICATIONS ARE AVAILABLE**

**Details** Ongoing discussions between the Department and Contractors through the LESS Committee.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation**

**References**

**PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102-111 to -114** **PENDING: TEMPORARY SIGNALIZATION**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 102-150- 1 PORTABLE REGULATORY SIGN

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details**

This device is part of the Motorist Awareness System (MAS). Design should work with Construction to determine the estimated days for each component of the motorist awareness system to be included in the contract.
Portable Regulatory Sign (PRS): The purpose of this device is to highlight the regulatory speed for the work zone. A PRS is a trailer that has the regulatory sign mounted with flashing lights on each side of the sign. The lights are used to draw the driver's attention to the regulatory speed.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 670
**Specifications** Section 102
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102-150- 1** **PORTABLE REGULATORY SIGN** **ED**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102150 1 | PORTABLE REGULATORY, SIGN | ED | | 1/1/2010 | |

## 102-150- 2 RADAR SPEED DISPLAY UNIT

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes**

**Details**

This device is part of the Motorist Awareness System. Refer to item 102-150- 1 for additional detail information.
Radar Speed Display Unit (RSDU): The purpose of this device is to display the motorist's work zone speed. A radar speed display unit is a portable trailer that displays the speed of approaching motorists on a LED display panel. The radar mounted on the unit detects the speed. A regulatory sign with the posted speed is mounted above the LED display panel. The unit is fitted with a device which counts the number of vehicles passing the Radar Speed Display Unit. The counter device is capable of: digital readout of the total number of vehicles passing the radar speed display unit, and digital readout of the number of vehicles exceeding the speed limit shown on the radar speed display unit. The device can be set that only speeds greater than the work zone speed are displayed.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 670

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102-150- 2** **RADAR SPEED DISPLAY UNIT** **ED**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102150 2 | RADAR SPEED DISPLAY UNIT | ED | | 1/1/2010 | |

## 102-910- TEMPORARY RAISED RUMBLE STRIP SET

**Unit** PS **Accuracy** Per Set **PlanQuantity?** no

**Notes** **Effective January 2011 letting. Refer to specification and Index 600 for usage.**

**Details**

Prior to January 2011, payment is included in LS MOT.
Effective January 2011, payment is made per set, when used as shown in Index 600. If no pay item is provided, include under LS MOT.

Per Index 600, Temporary raised rumble strip sets shall be placed in advance of each

flagging station, when called for in the plans. They are used to supplement a series of advanced warning signs. There are 4 strips per set.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102-910-** **TEMPORARY RAISED RUMBLE STRIP SET** **PS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102910 | TEMPORARY RAISED RUMBLE STRIP SET | PS | | 1/1/2011 | |

## 102-911- A REMOVABLE TAPE PAVEMENT MARKING - WHITE/BLACK

**Unit** LF; M1; SF; M2 **Accuracy** Linear Foot; 1/10 Meter; Square Foot; Square Meter **PlanQuantity?** no

**Notes**

**Details**

Use of removable work zone pavement markings shall be as defined by 102-10 of the specifications.

OTHER (SF): Pay item 102-911- 3 (2102-911- 3) is used for stop bars, turn arrows, etc.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **102-911- A** **REMOVABLE TAPE PAVEMENT MARKING - WHITE/BLACK** **LF; SF**

A = Type
1 (Skip) LF
2 (Solid) LF
3 (Other) SF

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102911 1 | PAVEMENT MARKING REMOVABLE TAPE, WHITE-BLACK, SKIP | LF | | 1/1/2010 | |
| 0102911 2 | PAVEMENT MARKING REMOVABLE TAPE, WHITE-BLACK,SOLID | LF | | 1/1/2010 | |
| 0102911 3 | PAVEMENT MARKING REMOVABLE TAPE, WHITE-BLACK, OTHER | SF | | 1/1/2010 | |

## 102-912- A REMOVABLE TAPE PAVEMENT MARKING - YELLOW

**Unit** LF; M1; SF; M2 **Accuracy** Linear Foot; 1/10 Meter; Square Foot; Square Meter **PlanQuantity?** no

**Notes**

**Details** Use of removable work zone pavement markings shall be as defined by 102-10 of the specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 600

**Specifications** Section 102

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 102-912- A** **REMOVABLE TAPE PAVEMENT MARKING - YELLOW** **LF; SF**

A = Type
1 (Skip) LF
2 (Solid) LF
3 (Other) SF

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0102912 1 | PAVT MARKING REMOVABLE TAPE, YELLOW, SKIP | LF | | 1/1/2010 | |
| 0102912 2 | PAVEMENT MARKING REMOVABLE TAPE, YELLOW, SOLID | LF | | 1/1/2010 | |
| 0102912 3 | PAVEMENT MARKING REMOVABLE TAPE, YELLOW, OTHER | SF | | 1/1/2010 | |

## 103- 1- A TEMPORARY WORK STRUCTURE

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes** **Monitor: Robert Robertson, State Structures Design Engineer**

**Details**

M= Monitored Item.
Coordinate with the State Structures Design Office on the use of this item.

The plans shall include drawings depicting the construction methods assumed in the preparation of the plans. The designer shall determine if a temporary structure (temporary bridges, platforms, etc.) is needed to furnish the contractor with access to the site to enable the bridge to be built. When a temporary structure is required, the anticipated structure type will be shown in the plans.

Temporary Structures will be paid separately only if they are required for access or to comply with permit restrictions. If access is available by including, but not limited to, barges, mats, or existing ground, no temporary structure is required.

State Structures Office must request unblock pay item structure.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 103

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **103- 1- A** **TEMPORARY WORK STRUCTURE** **LS/LS**

A= Project Number
1 (valid through 12-31-2008; for any project)
2…next number (project number, as approved by State Structures Design Office)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0103 1 6 | TEMPORARY WORK STRUCTURE, PROJECT NUMBER 256903-1-52-01 | LS | M | 1/1/2010 | 10/30/2014 |
| 0103 1 7 | TEMPORARY WORK STRUCTURE, PROJECT NUMBER 218946-1-52-01 | LS | M | 1/1/2010 | |
| 0103 1 8 | TEMPORARY WORK STRUCTURE, PROJECT NUMBER 210873-2-52-01 | LS | M | 1/1/2010 | |

## 104- 1- ARTIFICIAL COVERINGS/ROLLED EROSION CONTROL PRODUCTS

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details**

This item may be used for several purposes. Estimate and/or calculate according to the following information. The total quantity is the sum used for the applicable purposes below. Tabulate the quantity and purpose of each in the plans. Install the product(s) in accordance with the Erosion and Sediment Control Manual.

FOR PAUSES IN CONSTRUCTION: Used for pauses in construction due to inclement weather or other circumstances. For this purpose, artificial coverings may be composed of natural or synthetic fiber mats, plastic sheeting or netting. Estimate 1% of the total permanent grassing area, where the total grassing area is defined as the sum of the seeding + seeding and mulching + sodding areas. Coverings used for this purpose are typically removed when construction resumes.

FOR EROSION CONTROL: Used for erosion control that facilitates plant growth, while permanent grass is established. Biodegradable erosion control blankets are installed over a seeded area and may be used on fill slopes and in ditches, and left in place to biodegrade. Show in plans (plan view or tabulation of quantities) the locations where erosion control blankets are to be used. Calculate the quantity in square yards (square meters).

FOR DRAINAGE CHANNEL: Use the E&SC Manual Selection Guide to determine the correct product type. Shear Stress and velocity calculations must be completed, as shown in the E&SC manual.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqem: EMO Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 104

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 1-** **ARTIFICIAL COVERINGS/ROLLED EROSION CONTROL PRODUCTS** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 1 | ARTIFICIAL COVERINGS /ROLLED EROSION CONTROL PRODUCTS | SY | | 1/1/2010 | |

## 104- 4- MOWING

**Unit** AC; HA **Accuracy** 1/10 Acre; 1/10 Hectare **PlanQuantity?** no

**Notes**

**Valid through June 2010. Replaced by 107 items. Refer to Estimates/Roadway Design Bulletin for details.**

**Details**

DO NOT USE THIS ITEM WITH SECTION 570- PERFORMANCE TURF.

This item is included for routine maintenance of existing, permanent, and temporary grassing until the project is completed.

Coordinate the use of this item with Sections 570 and 580. DO NOT use this item when payment for mowing is to be made under Section 570. When 570 items are used, all mowing, including undisturbed areas within project limits, is included under payment for 570 items.

Estimated Design Quantity: Use total grassed area, plus any other undisturbed areas within the project limits that need to be mowed during the life of the contract. Obtain the mowing cycle from the local Maintenance Office; multiply the area by the number of mowing cycles to be performed during the life of the contract. Convert units to acres (hectares), as necessary. Detail calculations in the comp book.

**Related Items** **Required** **Recommended** 570-1-A, 580-1-A

**Design Forms and Documentation**

SBLitterMowing: Summary of Litter Removal and Mowing

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 104

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 4-** **MOWING** **AC**

**Notes** DO NOT USE THIS ITEM WITH SECTION 570- PERFORMANCE TURF

Effective July 2010, refer to Section 107 items.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 104- 5- SANDBAGGING

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes** **Item valid through December 2009 letting. Refer to Estimates Bulletin 09-02 and Specification for replacement item(s).**

**Details** Included for the purpose of controlling erosion and siltation. Use 12"x24"x6" bags (0.3 x 0.6 x 0.15 meter bags). Refer to index for applications and estimated quantity.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqem: EMO Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 100, 102, and 201
(see Index modifications for July 2010; Index 100 and 102 are deleted.)

**Specifications** Section 104

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 5-** **SANDBAGGING** **CY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

## 104- 6- TEMPORARY SLOPE DRAIN / RUNOFF CONTROL STRUCTURE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Pay Item Description changed to Runoff Control Structure. Refer to Specification for current usage.**

**Details** Refer to the Erosion and Sediment Control manual (E&SC manual) for correct use of this item. Runoff Control Structures include temporary slope drains and check dams. All items shown in the manual or design standard are included in the payment, per length, along the centerline of the structure.

**Related Items** **Required** **Recommended** 104- 5, 575- 5 (2104-5, 2575-5)

**Design Forms and Documentation** sumqem: EMO Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 100 (see Index modifications for July 2010; Index 100 is deleted)

**Specifications** Section 104

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 6-** **TEMPORARY SLOPE DRAIN / RUNOFF CONTROL STRUCTURE** **LF**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 6 | TEMPORARY SLOPE DRAIN / RUNOFF CONTROL STRUCTURE | LF | | 1/1/2010 | |

## 104- 7- SEDIMENT BASIN/CONTAINMENT SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Refer to Estimates Bulletin 09-02 and E&SC manual for correct usage.**

**Details** Refer to the Erosion and Sediment Control manual (E&SC manual) for correct use of this item. These systems work to retain sediment, as well as to slow water velocities. Payment will include all items shown in the plans or E&SC manual, for a complete system.

Cleanings to maintain the system will be paid under pay item 104-9.

**Related Items** **Required** **Recommended** 104- 9- (2104- 9-)

**Design Forms and Documentation**
sumqem: EMO Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 101, 241
(see Index modifications for July 2010; Index 101 is deleted)
**Specifications** Section 104
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 104- 7- SEDIMENT BASIN/CONTAINMENT SYSTEM EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 7 | SEDIMENT BASIN / CONTAINMENT SYSTEM | EA | | 1/1/2010 | |

## 104- 9- SEDIMENT BASIN/ CONTAINMENT SYSTEM-CLEANOUT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**
**Refer to Estimates Bulletin 09-02 and E&SC manual for correct usage.**

**Details**
Estimate one cleanout per sediment Basin/Containment system, Item 104- 7 (2104- 7), on the project.

Sediment shall be removed or "cleaned-out" from the basin/containment system, as indicated in the plans, or as directed by the Engineer. Actual number of cleanings will depend on project conditions, as necessary to maintain the containment system(s).

**Related Items** **Required** **Recommended** 104- 7- (2104- 7-)

**Design Forms and Documentation**
sumqem: EMO Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 101
(see Index modifications for July 2010; Index 101 is deleted)
**Specifications** Section 104

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 9-** **SEDIMENT BASIN/ CONTAINMENT SYSTEM- CLEANOUT** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 9 | SEDIMENT BASIN / CONTAINMENT SYSTEM- CLEANOUT | EA | | 1/1/2010 | |

## 104- 10- 2 SYNTHETIC BALES

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Valid through 12-31-09; replaced by Sediment Barrier. Refer to Estimates Bulletin 09-02 for additional information.**

**Details** Consists of synthetic bales to protect against downstream accumulations of silt. Dams shall be constructed in accordance with the details shown in the plans or Design Standards. Standard lengths for common inlets will be shown on the Design Standards. Note that synthetic bales may be cleaned or replaced as necessary. Do not estimate for replacement cycles; payment includes maintenance of the erosion control device (cleaning and/or replacement), until permanent erosion control measures are in place.
All bales must be listed on the QPL, according to specification.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBSyntheticBales: Summary of Synthetic Bales
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 104
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 10- 2** **SYNTHETIC BALES** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 104- 10- 3 SEDIMENT BARRIER

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Effective with the January 2010 letting, New Item to replace 104-10-2 Synthetic Bales and 104-13- Staked Silt Fence. Refer to Estimates Bulletin 09-02**

**Details** To be used in accordance with the Erosion and Sediment Control Manual to protect against downstream accumulation of sediment. Includes synthetic bales, silt fence, and other similar materials shown in the manual.

Refer to the manual for examples of appropriate and inappropriate use of materials.

Payment is made per length of material, for each location on the project, regardless of whether the materials are new or relocated. The contractor must maintain the sediment barrier, by removing sediment, throughout the installed life of the product. No separate payment is made for maintaining the barrier. Refer to the specification for complete payment information.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** sumqem: EMO Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 104

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 10- 3** **SEDIMENT BARRIER** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 10 3 | SEDIMENT BARRIER | LF | | 1/1/2010 | |

## 104- 11- A FLOATING TURBIDITY BARRIER

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** To be used in accordance with the Erosion and Sediment Control Manual. Common uses include areas where dredging, filling or other construction activities may cause turbidity in water. Also refer to Design Standard Index 103, and any applicable permit requirements.

Per the specifications, each location is paid per length, regardless of whether the barrier is new, used, or relocated from a previous location. The designer should estimate the quantity based on the tabulated length at each location.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqem: EMO Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 103
(see Index modifications for July 2010; Index 103 is deleted)
**Specifications** Section 104
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 11- A** **FLOATING TURBIDITY BARRIER** **LF**

A = Blank (Standard)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 11 | FLOATING TURBIDITY BARRIER | LF | | 1/1/2010 | |

## 104- 12- A STAKED TURBIDITY BARRIER- NYLON REINFORCED PVC

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**
To be used in accordance with the Erosion and Sediment Control Manual and the Design Standards. This item is commonly used in areas where continuous construction activities change the natural contour and drainage runoff. Refer to Design Standard Index 106. Note that the material required by the standard is nylon reinforced PVC. (Geotextile fabric, such as silt fence, is not a substitute for this item.)

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqem: EMO Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 103

(see Index modifications for July 2010; Index 103 is deleted)

**Specifications** Section 104

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 12- A** **STAKED TURBIDITY BARRIER- NYLON REINFORCED PVC** **LF**

A = Blank (Standard)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 12 | STAKED TURBIDITY BARRIER- NYLON REINFORCED PVC | LF | | 1/1/2010 | |

## 104- 13- A STAKED SILT FENCE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Valid through 12-31-09. Replaced by 104-10-3 Sediment Barrier item. Refer to Estimates Bulletin 09-02 for additional information.**

**Details** Used for erosion control in areas where construction activities may cause silt runoff. Type III Silt Fence, as detailed in Index No. 102, should be used in most locations. Type IV fence has greater strength and height and should be used where a large sediment load is anticipated (steep fill slopes, long fill slopes, or a combination of both likely to produce a large sediment load)
Each type of silt fence will have an estimated service life of 12 months. The quantity will be developed by estimating the time (in months) the fence will be in place at each location and dividing by 12 (rounding up to the nearest whole) to determine the number of replacements. The total length of fence at each location is determined by multiplying the length of fence at each location by the number of replacements.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqem: EMO Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 102, 106
(see Index modifications for July 2010; Index 102 and 106 are deleted)
**Specifications** Section 104
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 13- A** **STAKED SILT FENCE** **LF**

A = Type
1 (Type III)
2 (Type IV)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 104- 15- SOIL TRACKING PREVENTION DEVICE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Should be constructed at points of egress from unstabilized areas of the project to minimize offsite tracking of sediment. to minimize tracking from the roadway portion of the project, use one device per mile (one device per 2 kilometers) with a minimum of two per project. Include an additional device for each storm water pond or mitigation site that is not adjacent to the roadway right-of-way. RRR projects should be handled on a case-by-case basis.
Payment includes excavation, grading, pipe, filter fabric, aggregate, etc., as indicated in Design Standard 106. Separate payment is made for hay bales and silt fence.

**Related Items** **Required** 104-10-1, 104-13-xxa **Recommended**

**Design Forms and Documentation**

sumqem: EMO Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 106
(see Index modifications for July 2010; Index 106 is deleted)

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 15-** **SOIL TRACKING PREVENTION DEVICE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 15 | SOIL TRACKING PREVENTION DEVICE | EA | | 1/1/2010 | |

## 104- 16- ROCK BAG

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Valid through 12-31-09. Replaced by 104-18 Inlet Protection System. Refer to Estimates Bulletin 09-02 for additional information.**

**Details** Include for the purpose of controlling siltation at curb and gutter inlets as shown in the Design Standards. Bags are to be 12"x12"x4" (0.3 m x 0.3 m x 0.1 m). Estimate 20 bags for each curb inlet.

**Related Items** **Required** **Recommended** 104-10-1,

**Design Forms and Documentation**
sumqem: EMO Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 102
(see Index modifications for July 2010; Index 102 is deleted)
**Specifications** Section 104
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 16-** **ROCK BAG** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 104- 17- SAND FENCE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Temporary fence for sand locations, used for erosion control purposes.

Tech Specs and/or plan details to include: fence size, slat size, post and fence materials, construction, installation, maintenance, removal, measurement, and payment. Spec to include option to allow fence to remain in place, at the discretion of the Engineer.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqem: EMO Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 17-** **SAND FENCE** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 17 | SAND FENCE | LF | T | 1/1/2010 | |

## 104- 18- INLET PROTECTION SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **New item effective January 2010, per Estimates Bulletin 09-02.**

**Details** This item is to be used in accordance with the Erosion and Sediment Control Manual for the protection of inlets. Payment per each inlet includes all work and materials shown in the E&SC manual, or as detailed in the plans, for a complete system. Curb Inlet filters, such as GutterBuddy, GutterGator, and similar are included in this pay item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqem: EMO Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 18-** **INLET PROTECTION SYSTEM** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 18 | INLET PROTECTION SYSTEM | EA | | 1/1/2010 | |

## 104- 19- CHEMICAL TREATMENT- POWDERED (For Erosion Control)

**Unit** SY; M2 **Accuracy** Square Yard; Square **PlanQuantity?** no

Meter

**Notes** **New item effective January 2010, per Estimates Bulletin 09-02.**

**Details** This item is to be used in accordance with the Erosion and Sediment Control Manual.

Polyacrylamides and Aluminum Sulfate are used to "clarify turbid or sediment laden water that does not yet meet surface water quality standards… or as an amendment to other erosion prevention and sediment control products, to aid in their performance." This pay item is typically used for soil stabilization in conjunction with Rolled Erosion Control Products (RECP); designers should estimate the same amount of area used for RECPs. The product must be installed in accordance with the chemical manufacturer's suggested application rate.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** sumqem: EMO Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 19-** **CHEMICAL TREATMENT- POWDERED (For Erosion Control)** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 19 | CHEMICAL TREATMENT- POWDERED, FOR EROSION CONTROL | SY | | 1/1/2010 | |

## 104- 20- CHEMICAL TREATMENT- FLOC LOGS, ALUM DRUMS (For Erosion Control)

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **New item effective January 2010, per Estimates Bulletin 09-02.**

**CONTACT THE MONITOR- Larry Ritchie, Environmental Specialist, State Construction Office.**

**Details** Coordinate the use of this item with the State Construction Office.

This item is to be used in accordance with the Erosion and Sediment Control Manual.

The 104-20 pay item is considered a Contractor's option for sediment control on the project site. It is typically used in conjunction with water treatment systems constructed by the

contractor to control sediment that results from project specific issues. Do not use in design without contacting Larry Ritchie, Environmental Specialist, in the State Construction Office.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | sumqem: EMO Summary of Quantities Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book | |
| References | PPM Chapter<br>Trns·port<br>Other<br>Standards<br>Specifications<br>Prep & Doc Manual Chapter(s) | |

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **104- 20-** **CHEMICAL TREATMENT- FLOC LOGS, ALUM DRUMS (For Erosion Control)** **EA**

**Notes** DO NOT USE WITHOUT APPROVAL OF THE MONITOR- Environmental Specialist, State Construction Office.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0104 20 | CHEMICAL TREATMENT - FLOC LOGS, ALUM DRUMS | EA | | 1/1/2010 | |

## 107- 1- LITTER REMOVAL AND DISPOSAL

**Unit** AC; HA **Accuracy** 1/10 Acre; 1/10 Hectare **PlanQuantity?** no

**Notes** **Effective July 2010, with new 107 Specification. Refer to Estimates/Roadway Design Bulletin for additional information.**

**Details** Estimate the area for each phase, based on the Temporary Traffic Control plans. It is not necessary to adjust for inlets, drains, slopes, small variations in tree lines, etc.

Estimate one litter removal and mowing cycle, at 15 day increments (e.g. 30 days, 45 days, or 60 days), for the duration of the project. Do not adjust the estimated number of cycles for growing season, special events, or project location; these will be adjusted by the engineer during construction, as needed.

Use a summary table in the plans to show the duration, estimated area, mowing frequency, and estimated number of cycles for each phase and the estimated total area. Use a minimum of 1 cycle per phase; after dividing the cycle duration by the frequency, round to the nearest cycle.

Payment will be based on the area calculated by the Engineer, per litter removal or mowing cycle.

Additional comments: If the contractor changes phasing, the CEI will still base the payment

for that mowing and litter removal cycle by determining the "actual area completed and accepted…determined by calculation using the lengths and widths based on the station to station dimensions shown in the plans." This means that the CEI will figure the area the contractor mowed (or is supposed to mow) by measurements on the plans…i.e., the approximate width mowed on each side times the length, less any areas deducted by engineer (areas not mowed).

If the number of cycles changes (due to wet or dry weather conditions, grass height, or other), payment will be made for the actual area and number of cycles completed.

While litter removal is normally completed prior to mowing, It is possible to have additional litter cycles (without mowing cycles), when directed by the Engineer.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | SBLitterMowing: Summary of Litter Removal and Mowing<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter** PPM Vol 2, 7.4

**Trns·port**

**Other Standards**

**Specifications** Section 107

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **107- 1-** **LITTER REMOVAL AND DISPOSAL** **AC**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0107 1 | LITTER REMOVAL | AC | | 7/1/2010 | |

## 107- 2- MOWING

**Unit** AC; HA **Accuracy** 1/10 Acre; 1/10 Hectare **PlanQuantity?** yes

**Notes** **Effective July 2010, with new 107 Specification. Refer to Estimates/Roadway Design Bulletin and Updated PPM for additional information.**

**Details** Estimate the area for each phase, based on the Temporary Traffic Control plans. It is not necessary to adjust for inlets, drains, slopes, small variations in tree lines, etc.

Estimate one litter removal and mowing cycle, at 15 day increments (e.g. 30 days, 45 days, or 60 days), for the duration of the project. Do not adjust the estimated number of cycles for growing season, special events, or project location; these will be adjusted by the engineer during construction, as needed.

Use a summary table in the plans to show the duration, estimated area, mowing frequency,

and estimated number of cycles for each phase and the estimated total area. Use a minimum of 1 cycle per phase; after dividing the phase duration by the frequency, round to the nearest cycle.

Payment will be based on the area calculated by the Engineer, per litter removal or mowing cycle.

Additional comments: If the contractor changes phasing, the CEI will still base the payment for that mowing and litter removal cycle by determining the "actual area completed and accepted…determined by calculation using the lengths and widths based on the station to station dimensions shown in the plans." This means that the CEI will figure the area the contractor mowed (or is supposed to mow) by measurements on the plans…i.e., the approximate width mowed on each side times the length, less any areas deducted by engineer (areas not mowed).

If the number of cycles changes (due to wet or dry weather conditions, grass height, or other), payment will be made for the actual area and number of cycles completed.

While litter removal is normally completed prior to mowing, It is possible to have additional litter cycles (without mowing cycles), when directed by the Engineer.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBLitterMowing: Summary of Litter Removal and Mowing

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** PPM Vol 2, 7.4

**Trns·port**

**Other**

**Standards**

**Specifications** Section 107

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **107- 2-** **MOWING** **AC**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0107 2 | MOWING | AC | | 7/1/2010 | |

**109- 71- A** **FIELD OFFICE**

**Unit** DA **Accuracy** Day **PlanQuantity?** no

**Notes**

**Details**

The designer should contact the District Construction Office to determine if this item should be used on a project. Consists of providing, furnishing and maintaining an Engineer's field

office for exclusive use by the Department.
Type B Fencing shall be used as detailed on Roadway and Traffic Design Standards, Index No. 452 for enclosing the field office. Payment for the fence shall be included in the bid price of the field office.
The field office shall be a building or mobile trailer erected at locations selected by the engineer. The field office shall be paid for at the contract unit price per day. per the specifications, "Provide a Field Office for Department use beginning 10 calendar days before contract time begins, and remain for 30 days after final acceptance, unless the Department request removal earlier. Payment will be made for each day the field office is available for use by Department personnel."

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 802

**Specifications** Section 109

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **109- 71- A** **FIELD OFFICE** **DA**

A = Size
1 (300 Sq ft)
2 ( 600 Sq ft)
3 ( 900 Sq ft)
4 (1200 Sq ft)
5 (1500 Sq ft)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0109 71 1 | FIELD OFFICE, 300 SQ FT | DA | | 1/1/2010 | |
| 0109 71 2 | FIELD OFFICE, 600 SQ FT | DA | | 1/1/2010 | |
| 0109 71 3 | FIELD OFFICE, 900 SQ FT | DA | | 1/1/2010 | |
| 0109 71 4 | FIELD OFFICE,1200 SQ FT | DA | | 1/1/2010 | |
| 0109 71 5 | FIELD OFFICE,1500 SQ FT | DA | | 1/1/2010 | |

## 110- 1- 1 CLEARING AND GRUBBING

**Unit** LS/AC; LS/HA **Accuracy** Lump Sum (1/100 Acre); Lump Sum (1/100 Hectare) **PlanQuantity?** yes

**Notes**

**Details**

Consists of complete removal and disposal of all vegetation, debris, drainage structures, flexible pavement, buildings or any other obstructions in all areas where excavation is to be done, or where embankments or structures will be constructed. This includes roadway area, ditch area, borrow and material pits, and areas where culverts or pipe lines will be constructed. Code the number of acres (hectares). Locate or define the scope of work involved on the contract plans.

Refer to Pay Item 110-4 for removal of concrete pavement, sidewalk, curb and gutter, etc.

Refer to specifications for guidance "when no direct payment is provided" for clearing and grubbing.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 110

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 1- 1** **CLEARING AND GRUBBING** **LS/AC**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 1 1 | CLEARING & GRUBBING | LS | | 1/1/2010 | |

## 110- 2- 1 CLEARING AND GRUBBING (PUSH BUTTON CONTRACT)

**Unit** AC; HA **Accuracy** 1/10 Acre; 1/10 Hectare **PlanQuantity?** no

**Notes**

**Details**

FOR PUSH BUTTON CONTRACTS ONLY
Consists of complete removal and disposal of all vegetation, debris, drainage structures, flexible pavement, buildings or any other obstructions identified in the plans or specifications. Locate or define the scope of work involved. (Removal of concrete pavement, non-asphalt, to be paid under 110- 4- (2110- 4-))

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 2- 1** **CLEARING AND GRUBBING (PUSH BUTTON CONTRACT)** **AC**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 2 1 | CLEARING & GRUBBING (PUSH BUTTON CONTRACT) | AC | | 1/1/2010 | |

## 110- 3- REMOVAL OF EXISTING STRUCTURE

**Unit** LS/SF; LS/M2 **Accuracy** Lump Sum (Square Foot); Lump Sum (Square Meter) **PlanQuantity?** yes

**Notes**

**Details**

Used for the removal of existing bridge structures and box culverts. Includes all work of removal (complete and/or partial), and disposal of the designated structures. Code the number of square feet (square meters), out-to-out of coping from begin bridge to end bridge.

If bridge debris is to be delivered to another agency, refer to specifications for delivery location. Delivery costs are included in the price for Removal of Existing Structure.

Add pay item note in plans that address bridges to be completely removed and bridges to be partially removed.

Tabulate bridges by bridge number and deck area to be removed. Quantities are based on out-to-out of coping from begin bridge to end bridge or from coping line to saw cut line from begin bridge to end bridge as applicable. Do not include rip-rap, fill slope area in removal quantity. Detail items to be removed in pay item note. Insert existing bridge plans into plan set. Show existing piling on Foundation Layout Sheet that requires complete removal (conflict with proposed foundations, or conflicts with future channel dredging per permit requirements, etc.).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 110

**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 110- 3- REMOVAL OF EXISTING STRUCTURE LS/SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 3 | REMOVAL OF EXISTING STRUCTURE | LS | | 1/1/2010 | |

## 110- 4- REMOVAL OF EXISTING CONCRETE PAVEMENT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details**

Consists of removing and disposing of existing concrete pavement, concrete sidewalks, slope pavement, ditch pavement and curb and gutter, where required because of construction operations. Specifically excludes retaining walls and drainage structures.

NOTE: Do not include removal of flexible pavement removal under this item.

Guidance: When is payment included under Clearing and Grubbing? When is Removal of Existing Concrete Pavement needed?
Consider project specific conditions:
If curb & gutter, sidewalk, etc. would likely be removed during standard clearing and grubbing operations (widening projects), then payment could be included in pay item 110-1. No separate payment is needed.
If the project involves removal of concrete pavement, sidewalk, etc., without the broad removal of items normally considered standard clearing and grubbing, then the Removal of Existing Pavement item might be the best choice. The square yard measurement would be clearly defined for these areas.
If the project involves replacement of a section of sidewalk and/or curb, the “no direct payment” option might be best; payment would be included in the cost for the new item(s).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 110

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 110- 4- REMOVAL OF EXISTING CONCRETE PAVEMENT SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 4 | REMOVAL OF EXISTING CONCRETE PAVEMENT | SY | | 1/1/2010 | |

## 110- 5- PLUGGING WATER WELL- ARTESIAN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Artesian is defined in specifications as "an artificial hole in the ground from which water supplies may be obtained and which penetrates any water bearing rock, the water in which is raised to the surface by natural flow…"

The Each pay item is to be used for caps placed on the well. Specifications or plan details are required to detail cap dimensions, materials, and installation instructions.

If the well is to be plugged with flowable fill or similar material, use the flowable fill pay item, 121-70.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 110

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 5-** **PLUGGING WATER WELL- ARTESIAN** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 5 | PLUGGING WATER WELLS, ARTESIAN | EA | | 1/1/2010 | |

## 110- 6- PLUGGING WATER WELL- NON-ARTESIAN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Non-Artesian is defined in the specifications as "a well in which the source of water is an unconfined aquifer. The water… does not rise above the source bed."

The Each pay item is to be used for caps placed on the well. Specifications or plan details are required to detail cap dimensions, materials, and installation instructions.

If the well is to be plugged with flowable fill or similar material, use the flowable fill pay item, 121-70.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 110

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 6-** **PLUGGING WATER WELL- NON-ARTESIAN** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 6 | PLUGGING WATER WELLS, NON-ARTESIAN | EA | | 1/1/2010 | |

## 110- 7- A MAILBOX

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Used for replacement of residential or business mailboxes that must be removed during construction operations. Refer to Index 532 for details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBMailBox: Summary of Mail Boxes
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 532
**Specifications** Section 110
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 7- A** **MAILBOX** **EA**

A = Description
1 (Furnish & Install Single)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 7 1 | MAILBOX, F&I SINGLE | EA | | 1/1/2010 | |

## 110- 8- A UNDERWATER DEBRIS REMOVAL

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes**

**Details** The specification must describe the item in detail, including its acceptance criteria, method of measurement, and for lump sum items, any secondary units of measure. This item should only be used when the designer is reasonably sure of the number of days which will be required for the task. The daily unit cost for the cranes and barges typically used in this item is relatively high and can quickly lead to large overrun costs if the number of days cannot be accurately estimated. Item 110-3 (2110- 3) is a more appropriate item to use when an accurate estimate of days required cannot be made.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
See Details Above
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 8- A** **UNDERWATER DEBRIS REMOVAL** **Mixed**

A = Method of Measurement
blank (Day) DA
1 (Weight) TN
2 (Length) LF

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 8 | UNDERWATER DEBRIS REMOVAL | DA | T | 1/1/2010 | |
| 0110 8 1 | UNDERWATER DEBRIS REMOVAL | TN | T | 1/1/2010 | |
| 0110 8 2 | UNDERWATER DEBRIS REMOVAL | LF | T | 7/1/2010 | |

## 110- 12- A HYDRODEMOLITION

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details**
For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-01: Area Computation and Contunuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 110- 12- A HYDRODEMOLITION SY**

A = Description/Unit of Measure
1 (Removal Of Deck Surface) SY

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 12 1 | HYDRODEMOLITION, REMOVAL OF DECK SURFACE | SY | T | 1/1/2010 | |

## 110- 71- 1 BRIDGE FENDER SYSTEM, REMOVAL & DISPOSAL- REHAB PROJECTS ONLY

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For use on Fender System Rehab projects only.
For projects with bridge and fender system replacement, payment for removal and disposal of existing fender system is included under Removal Of Existing Structures, item 110-3.
Plan Details and/or Tech Spec must address proper disposal of timber, as well as measurement and payment of rehab work. Refer to Section 110 of Specifications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 71- 1** **BRIDGE FENDER SYSTEM, REMOVAL & DISPOSAL-REHAB PROJECTS ONLY** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 71 1 | BRIDGE FENDER SYSTEM, REMOVAL & DISPOSAL | LF | T | 1/1/2010 | |

## 110- 73- REMOVE EXISTING BULKHEAD

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **110- 73-** **REMOVE EXISTING BULKHEAD** **LF**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 73 | REMOVE EXISTING BULKHEAD | LF | T | 1/1/2010 | |

## 110- 82- REMOVE & DISPOSE STRUCTURAL TIMBER

**Unit** MB; M3 **Accuracy** 1/10 Thou Board Measure; 1/10 Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

one board foot= one foot square by one inch thick; convert to thousand board foot for pay item.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **110- 82-** **REMOVE & DISPOSE STRUCTURAL TIMBER** **MB**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 82 | REMOVE & DISPOSE STRUCTURAL TIMBER | MB | T | 1/1/2010 | |

## 110- 84- TRANSPORT EXISTING MATERIAL FOR REEF ESTABLISHMENT

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 84-** **TRANSPORT EXISTING MATERIAL FOR REEF ESTABLISHMENT** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 84 | TRANSPORT EXISTING MATERIAL FOR REEF ESTABLISHMENT | LS | T | 1/1/2010 | |

## 110- 85- CLEANING INTERIOR OF SEGMENTAL BOX GIRDER SPAN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Valid for maintenance use. Detail cleaning requirements in the plans or specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 85-** **CLEANING INTERIOR OF SEGMENTAL BOX GIRDER SPAN** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 85 | CLEANING INTERIOR OF SEGMENTAL BOX GIRDER SPAN | EA | T | 1/1/2010 | |

## 110- 86- DELIVERY OF SALVAGEABLE MATERIAL TO FDOT

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

Designer must coordinate with Maintenance Office prior to using this item. Plan note as to delivery location of salvageable material must be included.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 110

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **110- 86-** **DELIVERY OF SALVAGEABLE MATERIAL TO FDOT** **LS/LS**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0110 86 | DELIVERY OF SALVAGEABLE MATERIAL TO FDOT | LS | T | 1/1/2010 | |

## 120- 1- REGULAR EXCAVATION

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** yes

**Notes**

**Details** Refer to Plans Preparation Manual, Volume 1, Chapter 3 for guidance on Earthwork Items. This item should be used on projects with cross sections to pay for the quantity of excavation on the project.

**Related Items** **Required** **Recommended** 120- 6 (2120- 6)

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other**

**Standards** Index No. 285, 500, 505

**Specifications** Section 120

**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 1-** **REGULAR EXCAVATION** **CY**

**Notes** Item used for Price Trends Report

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 1 | REGULAR EXCAVATION | CY | | 1/1/2010 | |

## 120- 2- A BORROW EXCAVATION

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details** Refer to Plans Preparation Manual, Volume 1, Chapter 3 for guidance on Earthwork Items.

TRUCK MEASURE: This item should only be used on projects with limited or no cross sections. The method to determine the quantity of borrow excavation is as follows:

Fill x Fill Adjustment Factor x Truck Adjustment Factor = Borrow Excavation (Truck Measure).

For example, if the fill adjustment is 20%, the fill adjustment factor is 1.2; and if the truck adjustment is 25%, the truck adjustment factor is 1.25

Applied to the above equation, an original fill amount of 253 CY would become:
253 X 1.2 X 1.25 = 380 CY of Borrow, Truck Measure

Note- the adjustments vary based on the type of material. Per the PPM, contact the District Materials of District Construction Office for project specific numbers.

For final quantity, measure the width, height, and length inside the truck bed; calculate the volume by multiplying those three dimensions. Subtract 2% of the result to account for the hoist box and bed fillets.

**Related Items** **Required** **Recommended** 120- 71 (2120- 71)

**Design Forms and Documentation**

SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other Standards** Index No. 500, 505

**Specifications** Section 120

**Prep & Doc Manual Chapter(s)** 6, 8, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 2- A** **BORROW EXCAVATION** **CY**

A = Measure Type
2 (Truck Measure)

**Notes** Item used for Price Trends Report

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 2 2 | BORROW EXCAVATION, TRUCK MEASURE | CY | | 1/1/2010 | |

## 120- 3- LATERAL DITCH EXCAVATION

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** yes

**Notes**

**Details** Consists of excavation on portions of lateral ditches beyond the limits of the roadway ROW. Includes inlet and outlet ditches, ditches parallel to the roadway, and may include channel excavation if Item 120-5 (2120- 5) is not used.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other**

**Standards** Index No. 281, 500

**Specifications** Section 120

**Prep & Doc Manual Chapter(s)** 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 3-** **LATERAL DITCH EXCAVATION** **CY**

**Notes** Item used for Price Trends Report

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 3 | LATERAL DITCH EXCAVATION | CY | | 1/1/2010 | |

## 120- 4- SUBSOIL EXCAVATION

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details** Refer to Plans Preparation Manual, Volume 1, Chapter 3 for guidance on Earthwork Items. Consists of excavation and disposal of muck, clay, rock or other material that is unsuitable in its original position, and that is excavated below the finished grade line template. Also includes all suitable material necessary to be removed in order to excavate the unsuitable material. The areas used to calculate subsoil excavation must also be used in calculating the fill areas, if material is to be replaced.

**Related Items** **Required** **Recommended** 120- 2- 2 or 120- 6 (2120- 2- 2 or 2120- 6)

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other Standards** Index No. 500, 505

**Specifications** Section 120

**Prep & Doc Manual Chapter(s)** 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 4-** **SUBSOIL EXCAVATION** **CY**

**Notes** Item used for Price Trends Report

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 4 | SUBSOIL EXCAVATION | CY | | 1/1/2010 | |

## 120- 5- CHANNEL EXCAVATION

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

Consists of excavation and disposal of all material from the limits of the channel, within the lines and grades indicated in the plans and permit.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other Standards**

**Specifications** Section 120

**Prep & Doc Manual Chapter(s)** 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 5-** **CHANNEL EXCAVATION** **CY**

**Notes** Item used for Price Trends Report

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 5 | CHANNEL EXCAVATION | CY | | 1/1/2010 | |

## 120- 6- EMBANKMENT

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** yes

**Notes**

**Details** Refer to Plans Preparation Manual, Volume 1, Chapter 3 for guidance on Earthwork Items. This item should be used on projects with cross sections to pay for the quantity of embankment on the project.

**Related Items** **Required** **Recommended** 120- 1 (2120- 1)

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other**

**Standards** Index No. 500, 505

**Specifications** Section 120

**Prep & Doc Manual Chapter(s)** 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 6-** **EMBANKMENT** **CY**

**Notes** Item used for Price Trends Report

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 6 | EMBANKMENT | CY | | 1/1/2010 | |

## 120- 71- REGULAR EXCAVATION (3R PROJECTS ONLY)

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** Refer to Plans Preparation Manual, Volume 1, Chapter 3 for guidance on Earthwork Items. to be used only on resurfacing or minor widening and resurfacing projects which conform to the guidelines in the Plans Preparation Manual. The designer will calculate quantities based on information obtained from the field and the proposed typical section. The designer will continue to show the Summary of Earthwork in the plans. The summary should show all quantities and adjustments.
Effective 7/2000 letting: This item should be used on projects with limited or no cross

sections, to pay for the quantity of excavation on the project. Item 120- 2- 2 (2120- 2- 2) should be considered.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other**

**Standards**

**Specifications** Section 120

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 71-** **REGULAR EXCAVATION (3R PROJECTS ONLY)** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 71 | REGULAR EXCAVATION (3-R PROJECTS ONLY) | LS | | 1/1/2010 | |

## 120- 72- GRAVEL FILL

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

Calculations will be made by the average end area method for all material placed within the limits and according to the detail shown in the plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Measure inside the truck bed; calculate the volume by multiplying those three dimensions. Subtract 2% to account for the hoist box and bed fillets. Record all field records on site source record form and transfer final quantity to computation book.

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 72-** **GRAVEL FILL** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 72 | GRAVEL FILL | CY | T | 1/1/2010 | |

## 120- 73- LIGHTWEIGHT AGGREGATE FILL

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

Calculations will be made by the average end area method for all material placed within the limits and according to the detail shown in the plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 73-** **LIGHTWEIGHT AGGREGATE FILL** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 73 | LIGHTWEIGHT AGGREGATE FILL | CY | T | 1/1/2010 | |

## 120- 74- SURCHARGE EMBANKMENT

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

The work of constructing surcharge fills, as shown in the plans and any extensions thereof, directed by the engineer, shall be included in the price and payment for surcharge embankment. The quantity shall be measured as provided in Section 120, with the exception that the original ground line used in computations shall be the finished grading template for the permanent construction. The measurement shall include only surcharge material actually placed above the original ground line (as defined above) and within the lines and grades for surcharge construction, as indicated in the plans or directed by the engineer. No allowance will be made for subsidence of material below the original ground line, as defined above. The price and payment for surcharge embankment shall be full compensation for all work required to construct and remove surcharge fills, including furnishing from areas provided by the contractor and borrow excavation required. Surcharge embankment requires a Technical Specification for materials, placement, measurement, and payment.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 3

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **120- 74-** **SURCHARGE EMBANKMENT** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0120 74 | SURCHARGE EMBANKMENT | CY | T | 1/1/2010 | |

## 121- 70- FLOWABLE FILL

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details** Applications for flowable fill include: beddings, encasements, closure for tanks, pipes, and general backfill for trenches.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 307

**Specifications** Section 121

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **121- 70-** **FLOWABLE FILL** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0121 70 | FLOWABLE FILL | CY | | 1/1/2010 | |

## 125- 1- EXCAVATION FOR STRUCTURES

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details** Includes excavation for bridge foundations, box culverts, pipe culverts, retaining walls, headwalls for pipe culverts and drains, manholes, and similar structures.
Direct Payment: refer to Method of Measurement in specifications.
No Direct Payment: work is included in the price for concrete or other related items.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 125

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 125- 1-** **EXCAVATION FOR STRUCTURES** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0125 1 | EXCAVATION FOR STRUCTURES | CY | | 1/1/2010 | |

## 125- 3- SELECT BEDDING MATERIAL

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details** No payment for this material will be made when available from excavation of pipe culvert or from other material from grading operations at a location not sufficiently remote to require loading on trucks.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Measure inside the truck bed; calculate the volume by multiplying those three dimensions. Subtract 2% to account for the hoist box and bed fillets. Record all field records on site source record form and transfer final quantity to computation book.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 125
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **125- 3-** **SELECT BEDDING MATERIAL** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0125 3 | SELECT BEDDING MATERIAL | CY | | 1/1/2010 | |

## 129- 1-AAA NATURAL DISASTER/PRE-EVENT CONTRACTS

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes** **Coordinate with the State Maintenance Office prior to using these items.**

**Details** Valid for Emergency Pre-event or Emergency Response contracts. May need to be coordinated with FEMA for post-event response contracts.

DO NOT use these items on standard Design-Construction contracts.

Crew Pre-positioning: Specifications should indicate that payment will be made for each crew, per day. This item is normally used with cut and toss, for pre-event contracts.

Crew: 2 People and vehicle, per hour. Specifications should indicate any specialized equipment that may need to be included with the vehicle. Overtime, after 8 hours, needs to be defined in the specifications- per 24 hour period, continuous shift, etc.

Cut and Toss: Hourly rate normally includes vehicle, 2 chain saw operators, and a supervisor. Specifications should detail specific requirements for contract. This item is normally used with crew pre-positioning, for pre-event contracts.

COLLECTION, HAULING, AND REDUCTION ITEMS:
Loading and Hauling debris to TDS site: Specifications must define measurement of the load, i.e. per truck volume, for a full to "slightly mounded" load. Quantity to be reduced for a partial load, based on truck volume. Price to include Maintenance of Traffic (MOT), CY

Reduction by grinding at the TDS, CY: Specifications to indicate whether this is based on volume of ground material, or truck load of loose unground material.
Reduction by incineration at the TDS, CY: Specifications to indicate how material is to be measured, before or after incineration.

Stump removal, per each. Specifications should indicate that no separate payment is made for stumps less than 24".

MISCELLANEOUS ITEMS:
Sweeping Curb and Gutter, HR: Payment will be made per person for sweeping with power blower. Equipment provided by the contractor.

Vacuum Inlets, HR: Payment will be made for clearing debris from inlets.

Removal of Hanging Limbs, HR: Payment will be made for each person removing hanging limbs.

Loading and hauling construction and demolition debris, CY: Specifications must define measurement of the load, i.e. per truck volume, for a full to "slightly mounded" load. Quantity to be reduced for a partial load, based on truck volume. Price to include Maintenance of Traffic (MOT), CY

White Goods and Hazardous Household Waste Disposal, EA: Specifications should indicate that payment is based on each "white good" . Define Hazardous waste disposal?

Freon Recovery, EA: Specifications need to define the work (remove, recover, etc.) to be completed. Payment is for each white good properly serviced to recover the Freon.

LOADING OF REDUCED MATERIAL, FINAL DISPOSITION
Loading and Hauling Reductions to a final disposition site, including MOT, CY: Specifications to indicate whether this is based on volume of ground material, or truck load of loose unground material. DO NOT USE BOTH CY AND TN Item on the same contract.

Loading and Hauling Reductions to a final disposition site, including MOT, TN: Specifications to indicate when/where weight measurements are to be made. DO NOT USE BOTH CY AND TN Item on the same contract.

Disposal/Tipping Fees: no-bid item, Contractor will be paid actual cost for this item.

| **Related Items** | **Required** | **Recommended** |
|---|---|---|
| **Design Forms and Documentation** | See Details Above<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **129- 1-AAA** **NATURAL DISASTER/PRE-EVENT CONTRACTS** **Mixed**

AAA= Operation and Unit of Measure
Pre-event, First response
1 (Crew Pre-positioning) DA
2 (Cut and Toss) HR
3 (Crew, 2 people and service Truck, Regular Time) HR
4 (Crew, 2 people and service Truck, After 8 Hours) HR
5 (Crew, 2 people and Bucket Truck, Regular Time) HR

6 (Crew, 2 people and Bucket Truck, After 8 Hours) HR

Collection, Hauling, and Reduction
11 (Loading and Hauling debris to TDS site) CY
12(Reduction by grinding at the TDS) CY
13 (Reduction by incineration at the TDS) CY

Stump Removal
21(24-48" diameter stump removal) EA
22(>48" diameter stump removal) EA

Miscellaneous Work
31 (Sweeping Curb and Gutter) HR
32 (Vacuum Inlets) HR
33 (Removal of Hanging Limbs) HR
34 (Loading and hauling construction and demolition debris) CY
35 (White Goods and Hazardous Household Waste Disposal) EA
36 (Freon Recovery) EA

Loading of Reduced Material, Final Disposition
50 (Disposal/Tipping Fees- no-bid item, Contractor will be paid actual cost for this item
51 (Loading and Hauling Reductions to a final disposition site, including MOT) CY; see detail to distinguish between CY and TN items.
52 (Loading and Hauling Reductions to a final disposition site, including MOT) TN; see detail to distinguish between CY and TN items.

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0129 1 1 | NATURAL DISASTER /PRE EVENT CONTRACTS, CREW PRE-POSITIONING | DA | T | 1/1/2010 | |
| 0129 1 2 | NATURAL DISASTER /PRE EVENT CONTRACTS, CUT AND TOSS | HR | T | 1/1/2010 | |
| 0129 1 3 | NATURAL DISASTER /PRE EVENT CONTRACTS, CREW, 2 PEOPLE AND SERVICE TRUCK, REGULAR TIME | HR | T | 1/1/2010 | |
| 0129 1 4 | NATURAL DISASTER /PRE EVENT CONTRACTS, CREW, 2 PEOPLE AND SERVICE TRUCK, AFTER 8 HR | HR | T | 1/1/2010 | |
| 0129 1 5 | NATURAL DISASTER /PRE EVENT CONTRACTS, CREW, 2 PEOPLE AND BUCKET TRUCK, REGULAR TIME | HR | T | 1/1/2010 | |
| 0129 1 6 | NATURAL DISASTER /PRE EVENT CONTRACTS, CREW, 2 PEOPLE AND BUCKET TRUCK, AFTER 8 HOURS | HR | T | 1/1/2010 | |
| 0129 1 11 | NATURAL DISASTER /PRE EVENT CONTRACTS, LOADING AND HAULING DEBRIS TO TDS SITE | CY | T | 1/1/2010 | |
| 0129 1 12 | NATURAL DISASTER /PRE EVENT CONTRACTS, REDUCTION BY GRINDING AT THE TDS | CY | T | 1/1/2010 | |
| 0129 1 13 | NATURAL DISASTER /PRE EVENT CONTRACTS, REDUCTION BY INCINERATION AT THE TDS | CY | T | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0129 1 21 | NATURAL DISASTER /PRE EVENT CONTRACTS, 24-48" DIAMETER STUMP REMOVAL | EA | T | 1/1/2010 |
| 0129 1 22 | NATURAL DISASTER /PRE EVENT CONTRACTS, >48" DIAMETER STUMP REMOVAL | EA | T | 1/1/2010 |
| 0129 1 31 | NATURAL DISASTER /PRE EVENT CONTRACTS, SWEEPING CURB AND GUTTER | HR | T | 1/1/2010 |
| 0129 1 32 | NATURAL DISASTER /PRE EVENT CONTRACTS, VACUUM INLETS | HR | T | 1/1/2010 |
| 0129 1 33 | NATURAL DISASTER /PRE EVENT CONTRACTS, REMOVAL OF HANGING LIMBS | HR | T | 1/1/2010 |
| 0129 1 34 | NATURAL DISASTER /PRE EVENT CONTRACTS, LOADING AND HAULING CONSTRUCTION AND DEMO DEBRIS | CY | T | 1/1/2010 |
| 0129 1 35 | NATURAL DISASTER /PRE EVENT CONTRACTS, WHITE GOODS AND HAZARD HOUSEHOLD WASTE DISPOSAL | EA | T | 1/1/2010 |
| 0129 1 36 | NATURAL DISASTER /PRE EVENT CONTRACTS, FREON RECOVERY | EA | T | 1/1/2010 |
| 0129 1 50 | NATURAL DISASTER /PRE EVENT CONTRACTS, DISPOSAL AND TIPPING FEES-DO NOT BID | LS | T | 1/1/2010 |
| 0129 1 51 | NATURAL DISASTER /PRE EVENT CONTRACTS, LOADING AND HAULING REDUCTIONS TO FINAL DISP, INC MOT | CY | T | 1/1/2010 |
| 0129 1 52 | NATURAL DISASTER /PRE EVENT CONTRACTS, LOADING AND HAULING REDUCTIONS TO FINAL DISP, INC MOT | CY | T | 1/1/2010 |

## 141- 70- SETTLEMENT PLATE ASSEMBLY

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **Coordinate with the State Maintenance Office prior to using these items.**

**Details** Used with surcharge embankment item

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other Standards** Index No. 540

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **141- 70-** **SETTLEMENT PLATE ASSEMBLY** **AS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0141 70 | SETTLEMENT PLATE ASSEMBLY | AS | T | 1/1/2010 | |

## 142- 70- SAND FILL

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

Per the specification, all details must be included in the plans: material requirements, placement, measurement, and payment.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

700-050-54: Daily Report or Truck-Measured Material Site Source Record (and Sketch)

**References**

**PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **142- 70-** **SAND FILL** **CY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0142 70 | FILL SAND | CY | D | 1/1/2010 | |

## 144- 1- A DIGITAL INCLINOMETER CASING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Coordinate the use of this item with the State Geotechnical Engineer.**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **144- 1- A** **DIGITAL INCLINOMETER CASING** **LF**

A = Description
1 (Vertical)
2 (Horizontal) to be opened with approval of State Geotech Engineer

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0144 1 1 | DIGITAL INCLINOMETER CASING, VERTICAL | LF | T | 1/1/2010 | |

## 144- 71- A PORE-PRESSURE TRANSDUCER (PIEZOMETER)

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Coordinate the use of this item with the State Geotechnical Engineer.**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description,

materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **144- 71- A** **PORE-PRESSURE TRANSDUCER (PIEZOMETER)** **EA**

A= Transducer Type
blank (type defined in plans/specs) valid through 6/30/2009
1 (Pneumatic) also use item 144-72 for tubing; effective 7/1/2009
2 (Vibrating Wire) do not use item 144-72; effective 7/1/2009

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0144 71 1 | PORE-PRESSURE TRANSDUCER-PIEZOMETER, PNEUMATIC | EA | T | 1/1/2010 | |
| 0144 71 2 | PORE-PRESSURE TRANSDUCER-PIEZOMETER, VIBRATING WIRE | EA | T | 1/1/2010 | |

**144- 72-** **TUBING FOR PIEZOMETER**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Coordinate the use of this item with the State Geotechnical Engineer.**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **144- 72-** **TUBING FOR PIEZOMETER** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0144 72 | TUBING FOR PIEZOMETER | LF | T | 1/1/2010 | |

## 144- 74- A PORE-PRESSURE TRANSDUCER- CONTROL/READOUT UNIT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Coordinate the use of this item with the State Geotechnical Engineer.**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **144- 74- A** **PORE-PRESSURE TRANSDUCER-CONTROL/READOUT UNIT** **EA**

A= Transducer Type
blank (type defined in plans/specs) valid through 6/30/2009
1 (Pneumatic) effective 7/1/2009
2 (Vibrating Wire) effective 7/1/2009

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0144 74 1 | PORE-PRESSURE TRANSDUCER, CONTROL / READOUT UNIT PNEUMATIC | EA | T | 1/1/2010 | |
| 0144 74 2 | PORE-PRESSURE TRANSDUCER, CONTROL / READOUT UNIT VIBRATING WIRE | EA | T | 1/1/2010 | |

## 145- 1- GEOSYNTHETIC REINFORCED SOIL SLOPE

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details**

***CAUTION- CALCULATE QUANTITY PER SPECIFICATION****

Refer to Plans Prep Manual, Volume 1, Chapter 31, to establish design guidelines, parameters, and limitations for these systems. The designer must provide the requirements in the plans for choosing the material from those listed in Index 501. For design assistance, contact the State Geotechnical Engineer.

Payment will be based on Plan Quantity, regardless of the length or number of layers of geosynthetic, including any reinforcement required below ground line. Does not include the cost of backfill material or placement of backfill.
Plan measurement will be based on the projected vertical height of the slope, from top of slope to the ground line at the toe of slope, regardless of the number of layers; multiply by the width (beginning and end limits). DO NOT USE THE SLOPE FACE AREA or material area. Refer to the specifications for method of measurement.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 501

**Specifications** Section 145

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **145- 1-** **GEOSYNTHETIC REINFORCED SOIL SLOPE** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0145 1 | GEOSYNTHETIC REINFORCED SOIL SLOPE | SF | D | 1/1/2010 | |

## 145- 2- GEOSYNTHETIC REINFORCED FOUNDATION OVER SOFT SOIL

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Refer to Plans Prep Manual, Volume 1, Chapter 31, to establish design guidelines, parameters, and limitations for these systems. The designer must provide the requirements in the plans for choosing the material from those listed in Index 501. For design assistance, contact the State Geotechnical Engineer.

Payment will be based on Plan Quantity, regardless of the length or number of layers of geosynthetic, including any reinforcement required below ground line. Does not include the cost of backfill material or placement of backfill.
Plan measurement will be based on the area of embankment to be reinforced. Refer to specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 501

**Specifications** Section 145

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **145- 2-** **GEOSYNTHETIC REINFORCED FOUNDATION OVER SOFT SOIL** **SY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0145 2 | GEOSYNTHETIC REINFORCED FOUNDATION OVER SOFT SOIL | SY | D | 1/1/2010 | |

## 145- 71- REINFORCEMENT GRID FOR SOIL STABILIZATION

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Coordinate the use of this item with the State Geotechnical Engineer.**

**Details** Geosynthetic Reinforced Roadway Base for Construction Expedient, as shown on Index 501. Full material technical specifications are required.

This item is intended for Soil Stabilization applications. For drainage/erosion control applications, refer to Section 530 items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-01: Area Computation and Contunuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the computation book form.

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 501
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **145- 71-** **REINFORCEMENT GRID FOR SOIL STABILIZATION** **SY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

## 145- 71- A REINFORCEMENT GRID FOR SOIL STABILIZATION

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Valid Through Dec 31, 2009; replaced by 145-71. Coordinate the use of this item with the State Geotechnical Engineer.**

**Details**

Geosynthetic Reinforced Roadway Base for Construction Expedient, as shown on Index 501.

Intended for Soil Stabilization applications. For drainage/erosion control applications, refer to Section 530 items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 501

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **145- 71- A** **REINFORCEMENT GRID FOR SOIL STABILIZATION** **SY**

A = Description
1 (Biaxial Type 1)
2 (Biaxial Type 2)
3 (Biaxial Type 3)

For other types, including Plastic Cellular Confinement Systems, contact the State Geotechnical Engineer; additional items to be added, pending approval.

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0145 71 | REINFORCEMENT GRID FOR SOIL STABILIZATION | SY | T | 1/1/2010 | |

**145- 72-** **CELLULAR CONFINEMENT FOR SOIL STABILIZATION**

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Coordinate the use of this item with the State Geotechnical Engineer.**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **145- 72-** **CELLULAR CONFINEMENT FOR SOIL STABILIZATION** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0145 72 | CELLULAR CONFINEMENT FOR SOIL STABILIZATION | SY | T | 1/1/2010 | |

## 160- 4- TYPE B STABILIZATION

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Consists of stabilizing designated portions of the roadbed to provide a firm and unyielding subgrade. Stabilizing material can be obtained from existing base material, or from commercial and local materials.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 506

**Specifications** Section 160

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **160- 4-** **TYPE B STABILIZATION** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0160 4 | TYPE B STABILIZATION | SY | | 1/1/2010 | |

## 160- 6- STABILIZED SUBBASE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Item valid through 12-31-2009. Replaced by 160-4, per specification.**

**Details** Stabilized subbase intended to strengthen the upper portion of the subgrade.

Refer to Section 180 (180 items) for Special Select Stabilized Subbase.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 160

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **160- 6-** **STABILIZED SUBBASE** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 161- PREDESIGNED STABILIZED SUBGRADE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes** **Specification change pending.**

**Details** Per the specifications, Section 161 is valid only for shoulder and non-traffic areas. Refer to Section 160 for roadway stabilization.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-01: Area Computation and Contunuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **161-** **PREDESIGNED STABILIZED SUBGRADE** **SY**

**Notes** Pay Item structure to be determined, pending specification change.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 162- 1- AB PREPARED SOIL LAYER

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Not to be used for Section 580: Landscape Operations. Refer to 580 specifications.

FINISH SOIL LAYER: to be used for areas to be seeded, seeded and mulched, or planted. (Included for sodded areas when called for in the plans.) Refer to 162 specifications and Index 105. Note- per index 105, treatment I conditions are included under performance turf pay item. For treatment II conditions, payment is made for Finish Soil Layer and Performance Turf items. Refer to Index 105 for additional information.

ORGANIC SOIL LAYER: only when required by permit. 6" depth.

BLANKET MATERIAL: only when required by permit. Show depth in plans

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-01: Area Computation and Contunuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 105
Blanket Material: Index No. 505

**Specifications** Section 162

**P: Selected items to be used by Permit only**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **162- 1- AB** **PREPARED SOIL LAYER** **SY**

A= Material
1 (Finish Soil Layer)
2 (Organic Soil Layer) Note: by Permit only. 6" depth, per specification.
3 (Blanket Soil Layer) Note: By Permit Only

B= Depth
1 (6") Standard depth for finish soil
2 (12") A=1 or 3
3 (Special Depth) A=2 or 3 only, as required by permit

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0162 1 11 | PREPARED SOIL LAYER, FINISH SOIL LAYER, 6" | SY | | 1/1/2010 | |
| 0162 1 12 | PREPARED SOIL LAYER, FINISH SOIL LAYER, 12" | SY | | 1/1/2010 | |
| 0162 1 21 | PREPARED SOIL LAYER, ORGANIC SOIL LAYER, 6" | SY | P | 1/1/2010 | |
| 0162 1 33 | PREPARED SOIL LAYER, BLANKET SOIL LAYER, SPECIAL DEPTH | SY | P | 1/1/2010 | |

**165- 70-** **SUBGRADE, LIME TREATED**

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **165- 70-** **SUBGRADE, LIME TREATED** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0165 70 | SUBGRADE LIME TREATED | SY | | 1/1/2010 | |

## 165- 71- HYDRATED LIME

**Unit** TN; MT **Accuracy** 1/10 Ton; 1/10 Metric Ton **PlanQuantity?** no

**Notes**
**Details**
**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-06: Weight Measure or Liquid Volume Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** 700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **165- 71-** **HYDRATED LIME** **TN**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0165 71 | HYDRATED LIME | TN | T | 1/1/2010 | |

## 173- 71- DRILLING HOLES FOR PRESSURE GROUTING

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **173- 71-** **DRILLING HOLES FOR PRESSURE GROUTING** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0173 71 | DRILLING HOLES FOR PRESSURE GROUTING | EA | T | 1/1/2010 | |

## 173- 76- GROUT PIPE INSTALLATION

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **173- 76-** **GROUT PIPE INSTALLATION** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0173 76 | GROUT PIPE INSTALLATION | LF | T | 1/1/2010 | |

## 173- 77- A SUBSURFACE PRESSURE GROUTING

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** no

**Notes** **Contact the State Geotechnical Engineer prior to using this item.**

**Details**

This item to be used for subsurface applications only. May be used for sinkhole repair. Tech Specs should indicate that this item includes all work and materials for grout injection; drilling holes and grout pipe may be paid separately under related 173 items. Clearly define material properties in specifications.
For concrete structures, refer to Structures items 400 to 460.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended** 173- 71-, 173- 76-

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **173- 77- A** **SUBSURFACE PRESSURE GROUTING** **CY**

A= Grout Material
1 (Sand-Cement)
2 (Sand Cement with Calcium Chloride) CaCl_2
3 (Cement Slurry)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0173 77 1 | SUBSURFACE PRESSURE GROUTING, SAND CEMENT | CY | T | 1/1/2010 | |
| 0173 77 2 | SUBSURFACE PRESSURE GROUTING, SAND CEMENT WITH CALCIUM CHLORIDE | CY | T | 1/1/2010 | |
| 0173 77 3 | SUBSURFACE PRESSURE GROUTING, CEMENT SLURRY | CY | T | 1/1/2010 | |

## 173- 78- A SOIL IMPROVEMENT BY VIBRO-COMPACTION

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Contact the State Geotechnical Engineer prior to using this item.**

**Details** This item to be used for subsurface applications, as approved by the State Geotechnical Engineer.

Tech Specs should be coordinated with the State Geotechnical Engineer and the District Materials Office.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **173- 78- A** **SOIL IMPROVEMENT BY VIBRO-COMPACTION** **LF**

A= Vibrator Horsepower
1( Up to 125 hp vibrator)
2 (126 to 205 hp vibrator)
3 (Over 206 hp vibrator)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0173 78 1 | SOIL IMPROVEMENT BY VIBRO-COMPACTION, UP TO 125 HP VIBRATOR | LF | T | 7/1/2010 | |
| 0173 78 2 | SOIL IMPROVEMENT BY VIBRO-COMPACTION, 126-205 HP VIBRATOR | LF | T | 7/1/2010 | |
| 0173 78 3 | SOIL IMPROVEMENT BY VIBRO-COMPACTION, OVER 206 HP VIBRATOR | LF | T | 7/1/2010 | |

**173- 79-** **PENDING: SOIL IMPROVEMENT BY STONE COLUMNS**

**Unit** **Accuracy** **PlanQuantity?** no

**Notes** **Contact Larry Jones, State Geotechnical Engineer. Pay item structure to be determined based on pending specification.**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **173- 79-** **PENDING: SOIL IMPROVEMENT BY STONE COLUMNS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 175- 1- RESEATING CONCRETE PAVEMENT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details** Perform controlled cracking of concrete pavement and reseating of the cracked slabs, by rolling, tamping, etc., on the underlying subgrade to provide a firm base for asphalt concrete surfacing.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 175

**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **175- 1-** **RESEATING CONCRETE PAVEMENT** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0175 1 | RESEATING CONCRETE PAVEMENT | SY | | 1/1/2010 | |

# BOE

## Basis of Estimates

*Chapter 12*

*Items 200 to 299*

State Specifications and Estimates Office
Estimating Systems Support Section

## 210- 1- AA REWORKING LIMEROCK BASE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details** Rework (or rework and widen) the existing rock base, by adding new limerock material as required by the plans and Section 210 of the specifications. Construct adjacent turnouts, entirely with new limerock.

**Related Items** **Required** 210- 2 **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 210, 285

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **210- 1- AA** **REWORKING LIMEROCK BASE** **SY**

AA = Thickness
1 (6")
8 (4")
9 (3")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0210 1 1 | REWORKING LIMEROCK BASE, 6" | SY | | 1/1/2010 | |
| 0210 1 8 | REWORKING LIMEROCK BASE, 4" | SY | | 1/1/2010 | |
| 0210 1 9 | REWORKING LIMEROCK BASE, 3" | SY | | 1/1/2010 | |

## 210- 2- LIMEROCK, NEW MATERIAL FOR REWORKING BASE

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details** To be used in accordance with Section 210 of the specifications.

Measurement, from specification: The quantity to be paid for will be the number of cubic yards of only the new limerock material actually placed in the road and accepted. The quantity will be determined by measurement in loose volume, in truck bodies, at the point of dumping on the road, with proper deduction for all materials wasted, left in trucks or

otherwise not actually used in the road. For this purpose, level the material in the truck bodies to facilitate accurate measurement.

**Related Items** **Required** 210- 1- A **Recommended**

**Design Forms and Documentation**

SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation**

700-050-54: Daily Report or Truck-Measured Material Site Source Record (and Sketch)

Measure inside the truck bed; calculate the volume by multiplying those three dimensions. Subtract 2% to account for the hoist box and bed fillets. Record all field records on site source record form and transfer final quantity to computation book.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 210, 285

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **210- 2-** **LIMEROCK, NEW MATERIAL FOR REWORKING BASE** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0210 2 | LIMEROCK-NEW MATERIAL FOR REWORKING BASE | CY | | 1/1/2010 | |

## 285-7AA- OPTIONAL BASE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Consists of base construction of one of the optional materials shown in the plan typical sections. The plans will include typical sections specifying only the base group on new construction and complete reconstruction projects, permitting the maximum number of general use options that the contractor can utilize. Note that there are still limitations given in the notes. Also, the designer can still specify base materials, if this is appropriate for the project. The Optional Base item is also used when specifying only one option, such as ABC III. The quantity must include a 4" (0.1 m) overhang, as shown on the typical section for rural projects.

NOTE: The cost of prime or tack coats used between layers of the base are included in the cost of the Optional Base.

Construction Forms & Text: A Contractor's Certification of Quantities will be required when Asphalt Base is used. The pay quantity will be adjusted per the specficiations.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-01: Area Computation and Contunuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | See details above<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 514

**Specifications** Section 285

**Prep & Doc Manual Chapter(s)** 6, 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **285-7AA-** **OPTIONAL BASE** **SY**

AA = Is 01 Thru 15 which indicates Base Group, as shown on Index 514

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0285701 | OPTIONAL BASE, BASE GROUP 01 | SY | | 1/1/2010 | |
| 0285702 | OPTIONAL BASE, BASE GROUP 02 | SY | | 1/1/2010 | |
| 0285703 | OPTIONAL BASE, BASE GROUP 03 | SY | | 1/1/2010 | |
| 0285704 | OPTIONAL BASE, BASE GROUP 04 | SY | | 1/1/2010 | |
| 0285705 | OPTIONAL BASE, BASE GROUP 05 | SY | | 1/1/2010 | |
| 0285706 | OPTIONAL BASE, BASE GROUP 06 | SY | | 1/1/2010 | |
| 0285707 | OPTIONAL BASE, BASE GROUP 07 | SY | | 1/1/2010 | |
| 0285708 | OPTIONAL BASE, BASE GROUP 08 | SY | | 1/1/2010 | |
| 0285709 | OPTIONAL BASE, BASE GROUP 09 | SY | | 1/1/2010 | |
| 0285710 | OPTIONAL BASE, BASE GROUP 10 | SY | | 1/1/2010 | |
| 0285711 | OPTIONAL BASE, BASE GROUP 11 | SY | | 1/1/2010 | |
| 0285712 | OPTIONAL BASE, BASE GROUP 12 | SY | | 1/1/2010 | |
| 0285713 | OPTIONAL BASE, BASE GROUP 13 | SY | | 1/1/2010 | |
| 0285714 | OPTIONAL BASE, BASE GROUP 14 | SY | | 1/1/2010 | |
| 0285715 | OPTIONAL BASE, BASE GROUP 15 | SY | | 1/1/2010 | |

## 286- 1- TURNOUT CONSTRUCTION

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details** To be used in accordance with Section 286 of the specifications and Index 516. Consists of

constructing new turnouts or extending existing turnouts on resurfacing and widening/resurfacing projects. Consists of excavation and construction of base course, and specifically excludes placing of AC surface course.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBTurnouts: Summary of Turnouts

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 516

**Specifications** Section 286

**Prep & Doc Manual Chapter(s)** 6, 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 286- 1- TURNOUT CONSTRUCTION SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0286 1 | TURNOUT CONSTRUCTION | SY | | 1/1/2010 | |

## 286- 2- TURNOUT CONSTRUCTION- ASPHALT

**Unit** TN; MT **Accuracy** 1/10 Ton; 1/10 Metric Ton **PlanQuantity?** no

**Notes**

**Details**

To be used in accordance with Section 286 of the specifications and Index 516. Consists of constructing new turnouts or extending existing turnouts on resurfacing and widening/resurfacing projects. Consists of excavation and construction of asphalt base course, and specifically excludes placing of AC surface course.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBTurnouts: Summary of Turnouts

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 516

**Specifications** Section 286

**Prep & Doc Manual Chapter(s)** 6, 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **286- 2-** **TURNOUT CONSTRUCTION- ASPHALT** **TN**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0286 2 | TURNOUT CONSTRUCTION-ASPHALT | TN | | 1/1/2010 | |

## 287- 1- ASPHALT TREATED PERMEABLE BASE

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** yes

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

700-050-54: Daily Report or Truck-Measured Material Site Source Record (and Sketch)

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 287

**Specifications** Section 287

**Prep & Doc Manual Chapter(s)** 6, 9, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **287- 1-** **ASPHALT TREATED PERMEABLE BASE** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0287 1 | ASPHALT TREATED PERMEABLE BASE | CY | | 1/1/2010 | |

## 288-001- CEMENT TREATED PERMEABLE BASE

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** yes

**Notes**

**Details**

| **Related Items** | **Required** | **Recommended** |
|---|---|---|
| **Design Forms and Documentation** | sumqrd: Roadway Summary of Quantities Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | 700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other** | |
| | **Standards** | Index No. 287 |
| | **Specifications** | Section 288 |
| | **Prep & Doc Manual Chapter(s)** | 13 |

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **288-001-** **CEMENT TREATED PERMEABLE BASE** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0288001 | CEMENT TREATED PERMEABLE BASE | CY | | 1/1/2010 | |

# BOE

## Basis of Estimates

*Chapter 13*

*Items 300 to 399*

State Specifications and Estimates Office
Estimating Systems Support Section

## 315- 1- STRESS ABSORBING MEMBRANE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **CONTACT THE STATE PAVEMENT DESIGN OFFICE for approval, prior to using this item.**

**Details** Project specific specifications, including material and installation requirements, are needed

Payment for this item includes all work and materials for the membrane.

NOTE: This item may serve as a replacement for Pavement Overlay fabric (Item 518-70), when approved by State Pavement Design Office.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **315- 1-** **STRESS ABSORBING MEMBRANE** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0315 1 | STRESS ABSORBING MEMBRANE | SY | T | 1/1/2010 | |

## 327- 70- AA MILLING EXISTING ASPHALT PAVEMENT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details** Consists of removing existing AC pavement to improve the rideability of the finished pavement, to lower the finished grade adjacent to existing curb prior to resurfacing, or to completely remove existing pavement. Includes transporting the milled material to the asphalt plant site, and stockpiling the material. Also includes removal of existing Reflective Pavement Markers. Show basis of calculation, include exceptions.

**Related Items** **Required** **Recommended** 300- 1- 1 (2300- 1- 1)

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 327

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **327- 70- AA** **MILLING EXISTING ASPHALT PAVEMENT** **SY**

AA =
1 (1" Avg. Depth)
2 (3 1/2" Avg. Depth)
3 (4 1/2" Avg. Depth)
4 (3" Avg. Depth)
5 (2" Avg. Depth)
6 (1 1/2" Avg. Depth)
7 (4" Avg. Depth)
8 (2 1/2" Avg. Depth)
9 (5 1/4 Avg. Depth)
10 (5" Avg. Depth)
11 (2 1/4" Avg. Depth)
12 (1 1/4" Avg. Depth)
13 (1 3/4" Avg. Depth)
14 (6 1/2" Avg. Depth)
15 (2 3/4" Avg. Depth)
16 (1/2" Avg. Depth)
17 (3 1/4" Avg. Depth)
18 (5 1/2" Avg. Depth)
19 (3/4" Avg. Depth)
20 (3 3/4" Avg. Depth)
21 (7" Avg. Depth)
22 (4 1/4" Avg. Depth)
23 (6" Avg. Depth)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0327 70 1 | MILLING EXIST ASPH PAVT, 1" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 2 | MILLING EXIST ASPH PAVT, 3 1/2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 3 | MILLING EXIST ASPH PAVT, 4 1/2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 4 | MILLING EXIST ASPH PAVT, 3" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 5 | MILLING EXIST ASPH PAVT, 2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 6 | MILLING EXIST ASPH PAVT, 1 1/2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 7 | MILLING EXIST ASPH PAVT, 4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 8 | MILLING EXIST ASPH PAVT, 2 1/2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 9 | MILLING EXIST ASPH PAVT, 5 1/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 10 | MILLING EXIST ASPH PAVT, 5" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 11 | MILLING EXIST ASPH PAVT, 2 1/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 12 | MILLING EXIST ASPH PAVT, 1 1/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 13 | MILLING EXIST ASPH PAVT, 1 3/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 14 | MILLING EXIST ASPH PAVT, 6 1/2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 15 | MILLING EXIST ASPH PAVT, 2 3/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 16 | MILLING EXIST ASPH PAVT, 1/2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 17 | MILLING EXIST ASPH PAVT, 3 1/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 18 | MILLING EXIST ASPH PAVT, 5 1/2" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 19 | MILLING EXIST ASPH PAVT, 3/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 20 | MILLING EXIST ASPH PAVT, 3 3/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 21 | MILLING EXIST ASPH PAVT, 7" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 22 | MILLING EXISTING ASPHALT PAVEMENT, 4 1/4" AVG DEPTH | SY | | 1/1/2010 | |
| 0327 70 23 | MILLING EXIST ASPH PAVT, 6" AVG DEPTH | SY | | 1/1/2010 | |

## 334- 1- AA SUPERPAVE ASPHALTIC CONCRETE

**Unit** TN; MT **Accuracy** 1/10 Ton; 1/10 Metric Ton **PlanQuantity?** no

**Notes**

**Details** Consists of using SUPERPAVE asphalt mixture design and analysis test equipment and procedures, Gyratory Compactor to better simulate actual pavement loadings (five different traffic levels available) to provide for a better rut-resistant mix design. Use 110 lb per square yard per 1 inch (24 kg/m2 per 10 mm) lift. Note: Other rates and PG 76-22 Binder

may be used only when recommended by District Materials Engineer.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-06: Weight Measure or Liquid Volume Comp & Cont.<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | 700-050-66: Contractor's Certification of Quantities- Asphalt & Bituminous Materials<br>Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications** Section 334<br>**Prep & Doc Manual Chapter(s)** 13 | |

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **334- 1- AA** **SUPERPAVE ASPHALTIC CONCRETE** **TN**

AA = Traffic
11 (A)
12 (B)
13 (C)
14 (D)
15 (E)
21 (Traffic A, PG 76-22)
22 (Traffic B, PG 76-22)
23 (Traffic C, PG 76-22)
24 (Traffic D, PG 76-22)
25 (Traffic E, PG 76-22)

PROPOSED/PENDING: coordinate with State Materials Office; specs under development
31 (Traffic Level A, PG 82-22)
32 (Traffic Level B, PG 82-22)
33 (Traffic Level C, PG 82-22)
34 (Traffic Level D, PG 82-22)
35 (Traffic Level E, PG 82-22)

**Notes** Item used for Price Trends Report

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0334 1 11 | SUPERPAVE ASPHALTIC CONC, TRAFFIC A | TN | | 1/1/2010 | |
| 0334 1 12 | SUPERPAVE ASPHALTIC CONC, TRAFFIC B | TN | | 1/1/2010 | |
| 0334 1 13 | SUPERPAVE ASPHALTIC CONC, TRAFFIC C | TN | | 1/1/2010 | |
| 0334 1 14 | SUPERPAVE ASPHALTIC CONC, TRAFFIC D | TN | | 1/1/2010 | |
| 0334 1 15 | SUPERPAVE ASPHALTIC CONC, TRAFFIC E | TN | | 1/1/2010 | |
| 0334 1 21 | SUPERPAVE ASPH CONC, TRAF A, PG76-22 | TN | | 1/1/2010 | |
| 0334 1 22 | SUPERPAVE ASPH CONC, TRAF B, PG76-22 | TN | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0334 1 23 | SUPERPAVE ASPH CONC, TRAF C, PG76-22 | TN | 1/1/2010 |
| 0334 1 24 | SUPERPAVE ASPH CONC, TRAF D, PG76-22 | TN | 1/1/2010 |
| 0334 1 25 | SUPERPAVE ASPH CONC, TRAF E, PG76-22 | TN | 1/1/2010 |

## 337- 7- AA ASPHALT CONCRETE FRICTION COURSE

**Unit** TN; MT **Accuracy** 1/10 Ton; 1/10 Metric Ton **PlanQuantity?** no

**Notes**

**Details**

The maximum spread rate used for estimating quantities are as follows:
a=5~ FC-5(Rubber): 80 lb/yd2 (44 kg/m2); recommended thickness 3/4 in (20mm)
a=7~ FC-9.5 (Rubber): 110 lb/yd2 (72 kg/m2); recommended thickness 1 in (30mm)
a=6~ FC-12.5 (Rubber): 165 lb/yd2 (96 kg/m2); recommended thickness 11/2 in (40mm)
a=21~ FC-9.5 (PG 76-22): 110 lb/yd2 (72 kg/m2); recommended thickness 1 in (30mm)
a=20~ FC-12.5 (PG 76-22): 165 lb/yd2 (96 kg/m2); recommended thickness 11/2 in (40mm)
a=22~ FC-5 (PG 76-22): 80 lb/yd2 (44 kg/m2); recommended thickness 3/4 in (20mm)

The actual spread rate will be based on the contractor's mix design per specifications. Designers must specify on the Typical Section, the traffic Level for structural Friction Courses FC-9.5 and FC-12.5.
Refer to Pavement Design Manual for additional information.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-06: Weight Measure or Liquid Volume Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

700-050-66: Contractor's Certification of Quantities- Asphalt & Bituminous Materials

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 337

**Prep & Doc Manual Chapter(s)** 11, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **337- 7- AA** **ASPHALT CONCRETE FRICTION COURSE** **TN**

AA = Type
5 (FC-5, Rubber)
22 (FC-5, PG 76-22)

29 (Traffic B, FC 4.75, Rubber) coordinate with State Materials Office; specs under development
30 (Traffic B, FC-9.5, Rubber)
31 (Traffic B, FC-12.5, Rubber)
32 (Traffic C, FC-9.5, Rubber)
33 (Traffic C, FC-12.5, Rubber)
35 (Traffic D, FC-12.5, Rubber)

39 (Traffic B, FC 4.75, PG 76-22)*coordinate with State Materials Office; specs under development

40 (Traffic B, FC-9.5, PG 76-22)
41 (Traffic B, FC-12.5, PG 76-22)
42 (Traffic C, FC-9.5, PG 76-22)
43 (Traffic C, FC-12.5, PG 76-22)
45 (Traffic D, FC-12.5, PG 76-22)

PROPOSED- coordinate with State Materials Office; specs under development
50 (Traffic B, FC 4.75, PG 82-22)
51 (Traffic B, FC-9.5, PG 82-22)
52 (Traffic B, FC-12.5, PG 82-22)
53 (Traffic C, FC 4.75, PG 82-22)
54 (Traffic C, FC-9.5, PG 82-22)
55 (Traffic C, FC-12.5, PG 82-22)
56 (Traffic D, FC 4.75, PG 82-22)
57 (Traffic D, FC-9.5, PG 82-22)
58 (Traffic D, FC-12.5, PG 82-22)

### Notes

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0337 7 5 | ASPHALT CONCRETE FRICTION COURSE-INC BIT/RUBBER, FC-5 | TN | | 1/1/2010 | |
| 0337 7 22 | ASPHALT CONCRETE FRICTION COURSE, INC BIT, FC-5, PG76-22 | TN | | 1/1/2010 | |
| 0337 7 29 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-4.75, RUBBER | TN | D | 1/1/2010 | |
| 0337 7 30 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-9.5, RUBBER | TN | | 1/1/2010 | |
| 0337 7 31 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-12.5, RUBBER | TN | | 1/1/2010 | |
| 0337 7 32 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-9.5, RUBBER | TN | | 1/1/2010 | |
| 0337 7 33 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-12.5, RUBBER | TN | | 1/1/2010 | |
| 0337 7 35 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, RUBBER | TN | | 1/1/2010 | |
| 0337 7 39 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-4.75, PG 76-22 | TN | D | 7/1/2010 | |
| 0337 7 40 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-9.5, PG 76-22 | TN | | 1/1/2010 | |
| 0337 7 41 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-12.5, PG 76-22 | TN | | 1/1/2010 | |
| 0337 7 42 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-9.5, PG 76-22 | TN | | 1/1/2010 | |
| 0337 7 43 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-12.5, PG 76-22 | TN | | 1/1/2010 | |
| 0337 7 45 | ASPHALT CONCRETE FRICTION COURSE,TRAFFIC D, FC-12.5, PG 76-22 | TN | | 1/1/2010 | |

## 339- 1- MISCELLANEOUS ASPHALT PAVEMENT

**Unit** TN; MT **Accuracy** 1/10 Ton; 1/10 Metric Ton **PlanQuantity?** no

**Notes**

**Details** Consists of construction of asphalt pavement in areas which will not be subjected to vehicular traffic, such as pavement under guardrail, bicycle paths, median pavement, sidewalks, etc. The pay quantity will be based on the average spread rate or dimensions for the project, limited to a maximum of 105% of the plan quantity. For calculation, use a weight of 100 lb/sy-in (22kg/m2 per 10mm) thickness.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBAsphaltMisc: Miscellaneous Asphalt

Locate in plans. Summarize quantities by location on summary sheet in the plans. NOTE: When included on guardrail summary, do not duplicate quantities on Misc Asphalt Summary.

**Construction Forms and Documentation**

700-050-66: Contractor's Certification of Quantities- Asphalt & Bituminous Materials

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 400 for guardrail applications

**Specifications** Section 339

**Prep & Doc Manual Chapter(s)** Contact Final Estimates

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 339- 1- MISCELLANEOUS ASPHALT PAVEMENT TN**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0339 1 | MISCELLANEOUS ASPHALT PAVEMENT | TN | | 1/1/2010 | |

## 341- 70- ASPHALT RUBBER MEMBRANE INTERLAYER

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details** Consists of a separate application of asphalt rubber binder covered with a single application of aggregate. Payment for bituminous material (rubber binder) is incidental to this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

700-050-66: Contractor's Certification of Quantities- Asphalt & Bituminous Materials

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 341

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **341- 70-** **ASPHALT RUBBER MEMBRANE INTERLAYER** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0341 70 | ASPHALT RUBBER MEMBRANE INTERLAYER | SY | | 1/1/2010 | |

## 350- 1- AA CEMENT CONCRETE PAVEMENT PLAIN

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Consists of placement of plain Portland Cement Concrete pavement and also of construction of pavement joints.
For colored concrete, see 523 items.

Through June 2011: Payment for grinding new concrete pavement is included with new concrete.
Effective July 2011: Pay for grinding separately, under Section 352 for all new concrete pavement.

**Related Items** **Required** 352- 70- **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 305, 560

**Specifications** Section 350

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 350- 1- AA CEMENT CONCRETE PAVEMENT PLAIN SY**

AA = Average thickness
1 (6")
2 (7")
3 (8")
4 (9")
5 (10")
8 (7 1/2")
9 (Var. 7 1/2" Avg.)
10 (12")
11 (13")
12 (11")
13 (11 1/2")
14 (14")
15 (13 1/2")
16 (10 1/2")
17 (8 1/2")
19 (12 1/2")
20 (Var. 9 1/2" Avg.)
21 (Var. 11" Avg.)
22 (Var. 11 1/2" Avg.)
23 (14 1/2")

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0350 1 1 | PLAIN CEMENT CONCRETE PAVEMENT, 6" | SY | | 1/1/2010 | |
| 0350 1 2 | PLAIN CEMENT CONCRETE PAVEMENT, 7" | SY | | 1/1/2010 | |
| 0350 1 3 | PLAIN CEMENT CONCRETE PAVEMENT, 8" | SY | | 1/1/2010 | |
| 0350 1 4 | PLAIN CEMENT CONCRETE PAVEMENT, 9" | SY | | 1/1/2010 | |
| 0350 1 5 | PLAIN CEMENT CONCRETE PAVEMENT, 10" | SY | | 1/1/2010 | |
| 0350 1 8 | PLAIN CEMENT CONCRETE PAVEMENT, 7 1/2" | SY | | 1/1/2010 | |
| 0350 1 9 | PLAIN CEMENT CONCRETE PAVEMENT, VARIABLE 71/2" AVERAGE | SY | | 1/1/2010 | |
| 0350 1 10 | PLAIN CEMENT CONCRETE PAVEMENT, 12" | SY | | 1/1/2010 | |
| 0350 1 11 | PLAIN CEMENT CONCRETE PAVEMENT, 13" | SY | | 1/1/2010 | |
| 0350 1 12 | PLAIN CEMENT CONCRETE PAVEMENT, 11" | SY | | 1/1/2010 | |
| 0350 1 13 | PLAIN CEMENT CONCRETE PAVEMENT, 11 1/2" | SY | | 1/1/2010 | |
| 0350 1 14 | PLAIN CEMENT CONCRETE PAVEMENT, 14" | SY | | 1/1/2010 | |
| 0350 1 15 | PLAIN CEMENT CONCRETE PAVEMENT, 13 1/2" | SY | | 1/1/2010 | |
| 0350 1 16 | PLAIN CEMENT CONCRETE PAVEMENT, 10 1/2" | SY | | 1/1/2010 | |
| 0350 1 17 | PLAIN CEMENT CONCRETE PAVEMENT, 8 1/2" | SY | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0350 1 19 | PLAIN CEMENT CONCRETE PAVEMENT, 12 1/2" | SY | 1/1/2010 |
| 0350 1 20 | PLAIN CEMENT CONCRETE PAVEMENT, VARIABLE 9 1/2" AVERAGE | SY | 1/1/2010 |
| 0350 1 21 | PLAIN CEMENT CONCRETE PAVEMENT, VARIABLE 11" AVERAGE | SY | 1/1/2010 |
| 0350 1 22 | PLAIN CEMENT CONCRETE PAVEMENT, VAR 11 1/2" AVG | SY | 1/1/2010 |
| 0350 1 23 | PLAIN CEMENT CONCRETE PAVEMENT, 14 1/2" | SY | 1/1/2010 |

## 350- 2- AA CEMENT CONCRETE PAVEMENT, REINFORCED

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Consists of placement of steel reinforced Portland Cement Concrete pavement and also of construction of pavement joints, as described in Section 350.

For fiber reinforced concrete, contact the State Pavement Design Office.
For colored concrete, see 523 items.

Through June 2011: Payment for grinding new concrete pavement is included with new concrete.
Effective July 2011: Pay for grinding separately, under Section 352 for all new concrete pavement.

**Related Items** **Required** 352- 70- **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 305, 560

**Specifications** Section 350

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **350- 2- AA** **CEMENT CONCRETE PAVEMENT, REINFORCED** **SY**

AA = thickness
1 (6")
3 (8")
4 (9")
10 (12")

17 (8.5")

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0350 2 1 | CEMENT CONC PAVT REINFORCED, 6" | SY | | 1/1/2010 | |
| 0350 2 3 | CEMENT CONC PAVT REINFORCED, 8" | SY | | 1/1/2010 | |
| 0350 2 4 | CEMENT CONC PAVT REINFORCED, 9" | SY | | 1/1/2010 | |
| 0350 2 10 | CEMENT CONC PAVT REINFORCED,12" | SY | | 1/1/2010 | |
| 0350 2 17 | CEMENT CONC PAVT REINFORCED, 8.5" | SY | | 1/1/2010 | |

## 350- 72- CLEANING & RESEALING JOINTS IN CONCRETE PAVEMENT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Longitudinal and transverse joints must be summarized. This item to be used on existing concrete pavement only.
DO NOT Use on bridge structures; refer to item 400-12.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 305

**Specifications** Section 350

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **350- 72-** **CLEANING & RESEALING JOINTS IN CONCRETE PAVEMENT** **LF**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0350 72 | CLEANING & RESEALING JOINTS- EXISTING CONCRETE PAVEMENT: REHAB | LF | | 1/1/2010 | |

## 350- 78- CLEANING AND SEALING RANDOM CRACKS IN CONCRETE PAVEMENT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Longitudinal and transverse joints must be summarized. This item to be used on existing concrete pavement only.
DO NOT Use on bridge structures; refer to Section 400 items.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 350

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **350- 78-** **CLEANING AND SEALING RANDOM CRACKS IN CONCRETE PAVEMENT** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0350 78 | CLEANING & SEALING RANDOM CRACKS IN EXISTING CONCRETE PAVEMENT- REHAB | LF | | 1/1/2010 | |

## 352- 70- GRINDING CONCRETE PAVEMENT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details** Through June 2011: This item to be used on existing concrete pavement only. Grinding of new concrete pavement included in the bid price for Cement Concrete Pavement.

Effective July 2011: This item will be used for grinding (1) existing concrete pavement shown in the plans, (2) new concrete pavement- the full width of the travel lanes, (3) shoulders, when shown in the plans to promote drainage. (Separate payment for grinding will be made for all concrete pavement- new and existing concrete.)

DO NOT Use on bridge structures; refer to Section 400 items.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 352

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **352- 70-** **GRINDING CONCRETE PAVEMENT** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0352 70 | GRINDING CONCRETE PAVEMENT | SY | | 1/1/2010 | |

## 353- 70- CONCRETE PAVEMENT SLAB REPLACEMENT

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

For use on existing Concrete Pavement roadways only.

Per specification, "the quantity will be calculated on the basis of field measured horizontal dimensions and pavement design thickness. No additional compensation will be allowed for additional concrete required to bring the proposed concrete slab up to finished grade."

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 305, 308

**Specifications** Section 353

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **353- 70-** **CONCRETE PAVEMENT SLAB REPLACEMENT** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0353 70 | CONCRETE PAVEMENT SLAB REPLACEMENT | CY | | 1/1/2010 | |

## 370- 1- BRIDGE APPROACH EXPANSION JOINT FOR CONCRETE PAVEMENT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Consists of the construction of special expansion joints for concrete pavement near the bridge approach slabs. These joints contain a section of reinforced concrete subslab supporting the concrete pavement, and a portion of the pavement over the subslab interrupted by a galvanized sheet metal strip.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 306

**Specifications** Sections 350, 370, 932

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **370- 1-** **BRIDGE APPROACH EXPANSION JOINT FOR CONCRETE PAVEMENT** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0370 1 | BRIDGE APPROACH EXPANSION JOINT FOR CONCRETE PAVEMENT | LF | | 1/1/2010 | |

# BOE

## Basis of Estimates

*Chapter 14*

*Items 400 to 499*

State Specifications and Estimates Office
Estimating Systems Support Section

| 400- -ALL | Class NS, I, II, III, IV, V, VI Details |
|---|---|

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes/no

**Notes** **NOTES BELOW ARE FOR CLASS NS, I, II, III, IV, and V, VI Concrete**

**Details**

No separate payment made for deck scuppers, poured expansion joints, deck control joints, preformed anchor bolt holes, plain neoprene bearing pads. These items are included in the cost of the concrete.

Reinforcement steel may be incidental to the cost of the concrete; refer to Section 400 of the specifications. Reinforcement is incidental for concrete jackets on steel piles, steel in barriers, traffic separators, and parapets. For Gravity Walls, reinforcement steel is incidental to cost of concrete.

Include quantity block in plans by component (except for misc. concrete). Mass concrete should be broken out in the quantity block separately. See SDG's 3.9. When component is phased, break down quantity by phase.
Concrete quantity is PLAN QUANTITY (except for misc. concrete). See Section 400-22.2.2 of the Specifications.

ENDWALLS: Refer to Design Standards for correct class of concrete and other payment details. For some U-endwalls, including Index 260 and 261, payment is made under 430 items. For Index 250, reinforcing steel is included in cost of concrete.

JUNCTION SLAB FOR GRAVITY WALLS: (Effective July 2010-June 2011) Payment for Junction Slab on Gravity Wall (Index 520) will be included in payment for 521-8 Retaining Wall with Junction Slab. Do not include junction slab quantities with CY gravity wall quantities.

JUNCTION SLAB FOR GRAVITY WALLS: (Effective July 2011) Payment for Junction Slab on Gravity Wall (Index 6011) will be included in payment for 521-8 Concrete Traffic Railing Barrier with Junction Slab. Do not include junction slab quantities with CY gravity wall quantities.

STEPS: Per Index 521, Payment for reinforcing steel shall be made under 415-1-13 misc steel.

Misc Concrete (through June 2009 letting): Estimate 5 CY (5 M3) minimum. PENDING: To be replaced by Class NS concrete or other non-concrete items, to which concrete is incidental.

Misc Concrete (effective July 2009 letting): No separate payment is made for Misc Concrete. Work and materials are to be included in the item to which it is incidental- pull & junction box, lighting, signing, etc.

Precast Deck Overlay: consists of Class II with steel fiber reinforcement; Class IV with polymer fiber reinforcement and low shrinkage admixtures. Coordinate Use of this item with the State Structures Design Office. Requires modified specifications.

Seal Concrete, Class III: When it is not practical to dewater land pier footings, show seal concrete in the plans. For water piers, both waterline and mud line footings require seal concrete to be shown in the plans. See SDG's 3.7.

Precast Segmental Production: Refer to Section 452 of the specifications, as needed.

Superstructure Light-Weight Concrete requires plan notes and/or a TSP for unit weight, aggregate requirements, etc.

Low Shrink Deck Concrete requires a TSP.

Self-Consolidating Concrete requires a Tech Spec. Coordinate this specification with the State Structures Design Office.

Counterweight Concrete may require plan notes and/or a TSP for unit weight, aggregate requirements, etc.

Concrete for bascule bridge pier should be paid for under Substructure or Mass-Substructure pay items. See SDG's 3.9.

Clearly delineate limits of microsilica concrete in the plans. Clearly delineate limits of calcium nitrite in the plans. CIP concrete requiring calcium nitrite should be paid for using the normal concrete pay item. See SDG's 1.4.3.

Class VI: Coordinate the use of these items with the State Structures Design Office.

ORIGINAL MEASUREMENT:
ALL, Except MISC: Detailed calculations are required in the computation book, calculate carefully to reflect actual scope of work. PLAN QUANTITY will be basis of payment to the Contractor.
MISC: Detailed calculations are required in computation book.
FINAL:
ALL, Except MISC: No calculations required unless item is to be adjusted. Final pay quantity will be PLAN QUANTITY with proper considerations for Specification tolerances.
MISC: Final measurements should be recorded in field book showing detailed calculations. (Refer to subarticle 400-20.2.2 in the specifications.) Transfer final quantity to proper form in computation book.

**Related Items** **Required** **Recommended** 415- 1- A

**Design Forms and Documentation**
COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
see detail

**References**

**PPM Chapter**

**Trns·port**

**Other** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.3, Cofferdams and Seals SDG's 3.7.
Normally requires SHOP DRAWINGS

**Standards** See pay item structure for applicable Index numbers.

**Specifications** Sections 346, 400

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- -ALL** **Class NS, I, II, III, IV, V, VI Details** **CY**

AAA = Applications, Valid Class(es)
1 (Culverts) Class I, II, IV
2 (Endwalls) Class I, II, IV, excluding Index 260 & 261 U-endwalls
4 (Superstructure) Class II, IV

5 (Substructure) Class II, IV
6 (Counterweight) Class IV
8 (Bulkhead) Class IV
10 (Approach Slabs) Class II
11 (Retaining Walls) CIP Retaining walls; DO NOT use this item for walls covered by 548 specifications
Class NS: Gravity Wall Index 520/6011*
Class II, III, IV: 5000 series/6010*
12 (Trench Slabs) Class II
13 (Concrete Steps) Class NS, Index 521
15 (Miscellaneous) **Valid through June 2009 letting**
20 (Seal) Class III
22 (Superstructure Closure Joint) Class IV, VI
25 (Mass- Substructure) Class I, II, IV
39 (Precast Segmental Superstructure) Class IV, VI. Refer to Section 452.
40 (Precast Segmental Substructure) Class IV, V. Refer to Section 452.
41 (Precast Deck Overlay) Class II with steel fiber reinforcement; Class IV with polymer fiber reinforcement & low shrink admixtures
42 (Substructure Self-Consolidating Concrete) Class VI, Tech Spec required
43 (Superstructure Self-Consolidating Concrete) Class VI, Tech Spec required
104 (Superstructure Light-Weight) Class IV
105 (Superstructure Special) Class ??
106 (Microsilica Substructure) Class V
107 (Microsilica Substructure-Mass) Class V
239 (Low Shrink Deck) Material Only, Class V

*Index numbers show both old (through June 2011)/ new (effective July 2011) references.

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| **400- 0-AAA** | **CLASS NS CONCRETE** | | | | |
|---|---|---|---|---|---|
| | **Unit** CY; M3 | **Accuracy** | 1/10 Cubic Yard; 1/10 Cubic Meter | **PlanQuantity?** | yes/no |
| **Notes** | | | | | |
| **Details** | Refer to 400- -ALL for details on all classes of concrete | | | | |
| **Related Items** | **Required** | | | **Recommended** | 415- 1- A |
| **Design Forms and Documentation** | COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.<br>Locate in the plans. Summarize quantities by location in the computation book. | | | | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>see detail | | | | |
| **References** | **PPM Chapter** | | | | |
| | **Trns·port** | | | | |
| | **Other** | Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.3, Cofferdams and Seals SDG's 3.7.<br>Normally requires SHOP DRAWINGS | | | |
| | **Standards** | Refer to 400- -ALL for details on all classes of concrete | | | |
| | **Specifications** | Sections 346, 400 | | | |

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- 0-AAA** **CLASS NS CONCRETE** **CY**

AAA = Class 0 Applications
11 (Gravity Wall) Index 520/6011*
13 (Concrete Steps) Index 521

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 0 11 | CONCRETE CLASS NS, GRAVITY WALL | CY | | 1/1/2010 | |
| 0400 0 13 | CONCRETE CLASS NS, STEPS | CY | | 1/1/2010 | |

## 400- 1-AAA CLASS I CONCRETE

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes/no

**Notes**

**Details** Refer to 400- -ALL for details on all classes of concrete

**Related Items** **Required** **Recommended** 415- 1- A

**Design Forms and Documentation**
COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
see detail

**References**

**PPM Chapter**

**Trns·port**

**Other** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.3, Cofferdams and Seals SDG's 3.7.
Normally requires SHOP DRAWINGS

**Standards** Refer to 400- -ALL for details on all classes of concrete

**Specifications** Sections 346, 400

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- 1-AAA** **CLASS I CONCRETE** **CY**

AAA = Class I Applications
1 (Culverts)
2 (Endwalls) Note: Does not include Index 260 or 261 U-endwalls

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 1 1 | CONCRETE CLASS I, CULVERTS | CY | | 1/1/2010 | |
| 0400 1 2 | CONCRETE CLASS I, ENDWALLS | CY | | 1/1/2010 | |
| 0400 1 11 | CONCRETE CLASS I, RETAINING WALLS | CY | | 1/1/2010 | |
| 0400 1 25 | CONC CLASS I, MASS SUBSTRUCTURE | CY | | 1/1/2010 | |

## 400- 2-AAA CLASS II CONCRETE

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes/no

**Notes**

**Details** Refer to 400- -ALL for details on all classes of concrete

**Related Items** **Required** **Recommended** 415- 1- A

**Design Forms and Documentation**
COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
see detail

**References**
**PPM Chapter**
**Trns·port**
**Other** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.3, Cofferdams and Seals SDG's 3.7.
**Standards** Refer to 400- -ALL for details on all classes of concrete
**Specifications** Sections 346, 400
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- 2-AAA** **CLASS II CONCRETE** **CY**

AAA = Class II Applications
1 (Culverts)
2 (Endwalls) Note: Does not include Index 260 or 261 U-endwalls
4 (Superstructure)
5 (Substructure)
10 (Approach Slabs)
11 (Retaining Walls) CIP retaining walls. NOTE: DO NOT use this item for walls covered by 548 specifications.
12 (Trench Slabs)
15 (Miscellaneous) **Valid through June 2009 letting**
41 (Precast Deck Overlay) w/admixtures

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 2 1 | CONCRETE CLASS II, CULVERTS | CY | | 1/1/2010 | |
| 0400 2 2 | CONCRETE CLASS II, ENDWALLS | CY | | 1/1/2010 | |
| 0400 2 4 | CONC CLASS II, SUPERSTRUCTURE | CY | | 1/1/2010 | |
| 0400 2 5 | CONCRETE CLASS II, SUBSTRUCTURE | CY | | 1/1/2010 | |
| 0400 2 8 | CONCRETE CLASS II, BULKHEAD | CY | | 1/1/2010 | |
| 0400 2 10 | CONCRETE CLASS II, APPROACH SLABS | CY | | 1/1/2010 | |
| 0400 2 11 | CONCRETE CLASS II, RETAINING WALLS | CY | | 1/1/2010 | |
| 0400 2 12 | CONCRETE, CLASS II, TRENCH SLAB | CY | | 1/1/2010 | |
| 0400 2 25 | CONCRETE CLASS II, MASS, SUBSTRUCTURE | CY | | 1/1/2010 | |
| 0400 2 41 | CONCRETE CLASS II, PRECAST DECK OVERLAY | CY | | 1/1/2010 | |

## 400- 3-AAA CLASS III CONCRETE

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes/no

**Notes**

**Details** Refer to 400- -ALL for details on all classes of concrete

**Related Items** **Required** **Recommended** 415- 1- A

**Design Forms and Documentation**
COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
see detail

**References**

**PPM Chapter**

**Trns·port**

**Other** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.3, Cofferdams and Seals SDG's 3.7.

**Standards** Refer to 400- -ALL for details on all classes of concrete

**Specifications** Sections 346, 400

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- 3-AAA** **CLASS III CONCRETE** **CY**

AAA = Class III Applications
11 (Retaining Walls) CIP retaining walls. NOTE: DO NOT use this item for walls covered by 548 specifications.
20 (Seal) Class III

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 3 1 | CONCRETE CLASS III, CULVERTS | CY | | 1/1/2010 | |
| 0400 3 8 | CONCRETE CLASS III, BULKHEAD | CY | | 1/1/2010 | |
| 0400 3 20 | CONC CLASS III, SEAL | CY | | 1/1/2010 | |

## 400- 4-AAA CLASS IV CONCRETE

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes/no

**Notes**

**Details** Refer to 400- -ALL for details on all classes of concrete
Class IV normally used for aggressive environments.

**Related Items** **Required** **Recommended** 415- 1- A

**Design Forms and Documentation** COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book
see detail

**References**

**PPM Chapter**

**Trns·port**

**Other** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.3, Cofferdams and Seals SDG's 3.7.

**Standards** Refer to 400- -ALL for details on all classes of concrete

**Specifications** Sections 346, 400

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- 4-AAA** **CLASS IV CONCRETE** **CY**

AAA = Class IV Applications
1 (Culverts)
2 (Endwalls) Note: Does not include Index 260 or 261 U-endwalls
4 (Superstructure)
5 (Substructure)
6 (Counterweight)
8 (Bulkhead)
11 (Retaining Walls) CIP retaining walls. NOTE: DO NOT use this item for walls covered by 548 specifications.
22 (Superstructure Closure Joint)
25 (Mass- Substructure)
39 (Precast Segmental Superstructure)
40 (Precast Segmental Substructure)

41 (Precast Deck Overlay) w/admixtures

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 4 1 | CONCRETE CLASS IV, CULVERTS | CY | | 1/1/2010 | |
| 0400 4 2 | CONCRETE CLASS IV, ENDWALLS | CY | | 1/1/2010 | |
| 0400 4 4 | CONCRETE CLASS IV, SUPERSTRUCTURE | CY | | 1/1/2010 | |
| 0400 4 5 | CONCRETE CLASS IV, SUBSTRUCTURE | CY | | 1/1/2010 | |
| 0400 4 6 | CONCRETE CLASS IV, COUNTERWEIGHT | CY | | 1/1/2010 | |
| 0400 4 8 | CONC CLASS IV, BULKHEAD | CY | | 1/1/2010 | |
| 0400 4 11 | CONC CLASS IV, RETAINING WALLS | CY | | 1/1/2010 | |
| 0400 4 22 | CONCRETE, CLASS IV, SUPERSTRUCTURE - CLOSURE JOINT | CY | | 1/1/2010 | 12/31/2010 |
| 0400 4 25 | CONCRETE CLASS IV, MASS, SUBSTRUCTURE | CY | | 1/1/2010 | |
| 0400 4 39 | CONCRETE CLASS IV, PRECAST SEGMENTAL, SUPSTRUCTURE | CY | | 1/1/2010 | 12/31/2013 |
| 0400 4 40 | CONCRETE CLASS IV, PRECAST SEGMENTAL, SUBSTRUCTURE | CY | | 1/1/2010 | 12/31/2013 |
| 0400 4 41 | CONCRETE CLASS IV, PRECAST DECK OVERLAY | CY | | 1/1/2010 | |
| 0400 4104 | CONC CLASS IV, SUPERSTRUCTURE, LT-WT | CY | | 1/1/2010 | |

## 400- 6- PRECAST ANCHOR BEAMS

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended for Precast Tie Back anchors for use in anchored wall systems. Include in anchored wall quantity block in plans

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 400

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- 6-** **PRECAST ANCHOR BEAMS** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 6 | PRECAST ANCHOR BEAMS | EA | | 1/1/2010 | |

## 400- 7- BRIDGE DECK GROOVING- DECK THICKNESS LESS THAN 8.5"

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details** Item intended for cases where deck profilograph and planing is not required by specification. When rigid approach slab is utilized, include approach slab area only. Quantity based on area bound by bridge gutter lines, begin/end of bridge or begin/end approach slab (if not covered by asphalt wearing surface).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 4.2

**Specifications** Section 400

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 7-** **BRIDGE DECK GROOVING- DECK THICKNESS LESS THAN 8.5"** **SY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 7 | BRIDGE DECK GROOVING, LESS THAN 8.5" | SY | | 1/1/2010 | |

## 400- 8-AAA CLASS V CONCRETE

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes/no

**Notes**

**Details** Refer to 400- -ALL for details on all classes of concrete

**Related Items** **Required** **Recommended** 415- 1- A

**Design Forms and Documentation**

COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

see detail

**References**

**PPM Chapter**

**Trns·port**

**Other** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.3, Cofferdams and Seals SDG's 3.7.

**Standards** Refer to 400- -ALL for details on all classes of concrete

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400- 8-AAA** **CLASS V CONCRETE** **CY**

AAA = Class V Applications
39 (Precast Segmental Superstructure)
40 (Precast Segmental Substructure)
106 (Microsilica Substructure)
107 (Microsilica Substructure-Mass)
239 (Low Shrink Deck) Material Only

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 8 5 | CONCRETE CLASS V, SUBSTRUCTURE | CY | T | 1/1/2010 | |
| 0400 8 22 | CONCRETE CLASS V, SUPER STRUCTURE CLOSURE JOINT | CY | T | 1/1/2010 | |
| 0400 8 25 | CONC CLASS V MASS - SUBSTRUCTURE | CY | T | 1/1/2010 | |
| 0400 8 39 | CONCRETE CLASS V, PRECAST SEGMENTAL SUPERSTRUCTURE | CY | T | 1/1/2010 | |
| 0400 8106 | CONCRETE CLASS V, MICROSILICA SUBSTRUCTURE | CY | T | 1/1/2010 | |
| 0400 8107 | CONC CLASS V, MICROSILICA SUBSTRUCTURE MASS | CY | | 1/1/2010 | |

## 400- 9- BRIDGE DECK GROOVING AND PLANING- DECK THICKNESS 8.5" or GREATER

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Item intended for cases where deck profilograph, and planing is required by specification. When rigid approach slab is utilized, include approach slab area. Quantity based on area bound by bridge gutter lines, begin/end of bridge or begin/end approach slab (if not covered by asphalt wearing surface).

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-01: Area Computation and Contunuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | SDG's 4.2 |
| | **Specifications** | Section 400 |
| | **Prep & Doc Manual Chapter(s)** | 7, 13 |

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 9-** **BRIDGE DECK GROOVING AND PLANING- DECK THICKNESS 8.5" or GREATER** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 9 | BRIDGE DECK GROOVING & PLANING, DECK 8.5"&> | SY | | 1/1/2010 | |

## 400- 10- PRECAST PANEL (ARCHITECTURAL)

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the computation book form. | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | Normally requires SHOP DRAWINGS |
| | **Specifications** | |

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 10-** **PRECAST PANEL (ARCHITECTURAL)** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 10 | PRECAST PANEL- ARCHITECTURAL | SF | | 1/1/2010 | |

## 400- 16-AAA CLASS VI CONCRETE

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes/no

**Notes**

**Details** Refer to 400- -ALL for details on all classes of concrete

**Related Items** **Required** **Recommended** 415- 1- A

**Design Forms and Documentation** COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book
see detail

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards** Refer to 400- -ALL for details on all classes of concrete
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 16-AAA** **CLASS VI CONCRETE** **CY**

AAA = Application
22 (Superstructure Closure Joint)
25 (Mass- Substructure)
39 (Precast Segmental Superstructure)
42 (Substructure Self-Consolidating Concrete)
43 (Superstructure Self-Consolidating Concrete)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 16 22 | CONCRETE, CLASS VI, SUPERSTRUCTURE - CLOSURE JOINT | CY | T | 1/1/2010 | |
| 0400 16 25 | CONCRETE CLASS VI, MASS, SUBSTRUCTURE | CY | T | 1/1/2010 | |
| 0400 16 39 | CONCRETE CLASS VI, PRECAST SEG SUPERST | CY | T | 1/1/2010 | |
| 0400 16 42 | CONCRETE CLASS VI, SUBSTRUCTURE SELF-CONSOLIDATING CONCRETE | CY | T | 1/1/2010 | |
| 0400 16 43 | CONCRETE CLASS VI, SUPERSTRUCTURE SELF-CONSOLIDATING CONCRETE | CY | T | 1/1/2010 | |

## 400- 20- GRINDING BRIDGE DECK- REHABILITATION ONLY

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Estimates Support: Contact the State Structures Design Office before opening item.**

**Details** For use on bridge rehabilitation projects only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-01: Area Computation and Contunuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the computation book form.

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 20-** **GRINDING BRIDGE DECK- REHABILITATION ONLY** **SY**

**Notes** Estimates Support: Contact the State Structures Design Office before opening item

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 20 | GRINDING BRIDGE DECK- REHABILITATION | SY | M | 1/1/2010 | |

## 400- 32- CONCRETE FOR JOINT REPAIR

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes

**Notes**

**Details** Intended for rehabilitation or widening projects to repair or replace concrete deck at expansion joints. Include in Quantity Block in Plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | COMP 700-050-04: Volume Measure Items and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 6.4

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 32-** **CONCRETE FOR JOINT REPAIR** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 32 | CONCRETE FOR JOINT REPAIR | CY | T | 1/1/2010 | |

## 400- 60- A CATHODIC PROTECTION- ELECTRICAL WORK

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

Intended for Electrical Work associated with Cathodic Protection. 3 pay items (power, conduit, and equipment, as described below) are needed for a complete electrical system. Use with either 400-142 Cathodic Protection (CP) of mass concrete products , 455-81 CP for piles, or 457 items- CP for integral pile jackets. Contact the Materials Lab for assistance with using this item.

AC or DC POWER SOURCE ASSEMBLY: Includes all work and materials for providing power to the Cathodic Protection System. For AC assemblies, this includes all costs associated with connection between system and external power source. For DC assemblies, includes solar panels, batteries, incidentals, and wiring necessary to provide power.

CONDUIT: Includes all conduit from power source assembly to end location(s), junction boxes, wiring, and all incidentals. Measure as the length of conduit from the power system, along the bridge, and down each pier to be protected.

EQUIPMENT & INSTRUMENTATION: Lump sum item to include all remaining items necessary for a complete system. Detail major equipment, by location, in the plans or Tech Specs.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 400-142, 455-81, or 457 items. **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 60- A** **CATHODIC PROTECTION- ELECTRICAL WORK** **LS/LS**

A= Components (Select only 1 power source assembly; use with BOTH A= 3 and 4)
1 (AC Power Source Assembly) LS
2 (DC Power Source Assembly) LS
3 (Conduit, Wiring, and Accessories) LS/LF
4 (Equipment & Instrumentation) LS

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 60 1 | CATHODIC PROTECTION - ELECTRICAL WORK, AC POWER SOURCE ASSEMBLY | LS | T | 1/1/2010 | |
| 0400 60 2 | CATHODIC PROTECTION - ELECTRICAL WORK, DC POWER SOURCE ASSEMBLY | LS | T | 1/1/2010 | |
| 0400 60 3 | CATHODIC PROTECTION - ELECTRICAL WORK, CONDUIT, WIRING, AND ACCESSORIES | LS | T | 1/1/2010 | |
| 0400 60 4 | CATHODIC PROTECTION - ELECTRICAL WORK, EQUIPMENT & INSTRUMENTATION | LS | T | 1/1/2010 | |

## 400- 72- PRECAST BULKHEAD PANELS

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for precast panels used as part of a soldier pile wall system.
Pay Item note recommended; coordinate with specifications. Add pay item note similar to concrete sheet piles (Spec. 455-9.4 and 455-12.7) to include cost of trenching, preformed holes in cost of precast panels. Include in Soldier Wall Quantity Block in Plans.
May require specification modifications as follows: 455-5.15.2 and 455-5.15.3 Placement Tolerances (+/-1") and Batter Tolerances (1/8 in/ft)

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended** 455-34- AA

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other** SDG's 3.12.9 and Figure 3-13.
Normally requires SHOP DRAWINGS

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 72-** **PRECAST BULKHEAD PANELS** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 72 | PRECAST BULKHEAD PANELS | SF | T | 1/1/2010 | |

## 400- 91- DEWATERING FOR SPREAD FOOTINGS

**Unit** EA **Accuracy** Each **PlanQuantity?** yes

**Notes**

**Details**

Required on all spread footing projects where dewatering is anticipated due to high water table. Include in Footing Quantity Block in Plans.
Usually used with Pay Items 400-4-25, 400-2-25, 415-1-5. Include Pay Item 125-1 only

when additional excavation is required below bottom of footing elevation.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 91-** **DEWATERING FOR SPREAD FOOTINGS** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 91 | DEWATERING FOR SPREAD FOOTINGS | EA | T | 1/1/2010 | |

## 400- 95- A COFFERDAM

**Unit** EA **Accuracy** Each **PlanQuantity?** yes

**Notes**

**Details**

Intended to construct/dewater cofferdams. Cofferdams may be required to construct or demolish mud line footings located in the waterway. This pay item is not to be utilized when full containment structures are required due to special environmental turbidity requirements, or when a pier footing is located at the shoreline making dewatering difficult. Do not use for waterline or slightly submerged footings.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 400- 3- 20 **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 3.7.

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400- 95- A** **COFFERDAM** **EA**

A =
1 (Bascule Pier)
3 (Special)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400 95 1 | COFFERDAM, BASCULE PIER | EA | T | 1/1/2010 | |
| 0400 95 3 | COFFERDAM, SPECIAL | EA | T | 1/1/2010 | |

## 400-128- GROUTING PRECAST DECK PANELS (NON-SHRINK GROUT)

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Intended for grouting the keyways of precast deck panels for both new and rehabilitation projects. On rehabilitation projects, include pay item notes to address payment of the various work items involved.
TSP may be required on rehabilitation projects to address removal of existing asphalt overlay, removal and preparation of existing keyways, grouting of keyways, post-tensioning and new overlay requirements.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400-128-** **GROUTING PRECAST DECK PANELS (NON-SHRINK GROUT)** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400128 | GROUTING PRECAST DECK PANELS, NON-SHRINK GROUT | LF | | 1/1/2010 | |

## 400-136- EPOXY CONCRETE OVERLAY- STRUCTURES REHAB

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Used for rehabilitation of existing bridges. Item includes all costs for shotblasting deck, cleaning deck surface, testing cohesion, furnishing & installing epoxy overlay wearing surface. Contact State Structures Office for assistance.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400-136-** **EPOXY CONCRETE OVERLAY- STRUCTURES REHAB** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400136 | EPOXY CONCRETE OVERLAY- STRUCTURES REHAB | SY | T | 1/1/2010 | |

## 400-140- A NEOPRENE PAD REPLACEMENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Intended for rehabilitation and widening projects to replace existing damaged pads. Show locations w/ quantity block in plans. Include pay item note to include cost of neoprene pads, jacking bridge, disposal of old pads, and all other labor and materials required to replace existing bearing incidental to cost of this item.
For Composite pads, refer to pay item 400-147.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**
**Trns·port**
**Other** SDG's 6.5
**Standards** Index No. 20500, 20501
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400-140- A** **NEOPRENE PAD REPLACEMENT** **EA**

A =
1 (Bent / Pier)
2 (Abutment)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400140 1 | NEOPRENE PAD REPLACEMENT, BENT/PIER | EA | T | 1/1/2010 | |
| 0400140 2 | NEOPRENE PAD REPLACEMENT, ABUTMENT | EA | T | 1/1/2010 | |

## 400-142- A CATHODIC PROTECTION SYSTEM

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** no

**Notes**

**Details**

Intended for rehabilitation projects when galvanic or impressed current cathodic systems are used for mass concrete or structural components. Contact State Materials Office, Corrosion Lab for assistance in use of this item. Show locations in plans w/ quantity block.

Use Item 400-60 for Electrical Work associated with this item.

DO NOT USE this item for Pile or Pile Jacket Cathodic Protection. See 455-81 (pile) or 457·71 (pile jacket) for other Cathodic Protection items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 400- 60- A **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400-142- A** **CATHODIC PROTECTION SYSTEM** **SF**

A =
3 (Zinc Aluminum Spray)
4 (Zinc Aluminum Sheets)
7 (Titanium Mesh)
8 (Titanium Bars)
9 (Other Material) to be used only with approval of State Corrosion Engineer/Materials Office

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400142 3 | CATHODIC PROTECTION SYSTEM, ZINC ALUMINUM SPRAY | SF | T | 1/1/2010 | |
| 0400142 4 | CATHODIC PROTECTION SYSTEM, ZINC ALUMINUM SHEETS | SF | T | 1/1/2010 | |
| 0400142 7 | CATHODIC PROTECTION SYSTEM, TITANIUM MESH | SF | T | 1/1/2010 | |
| 0400142 8 | CATHODIC PROTECTION SYSTEM, TITANIUM BARS | SF | T | 1/1/2010 | |
| 0400142 9 | CATHODIC PROTECTION SYSTEM, OTHER MATERIAL | SF | T | 1/1/2010 | |

## 400-143- CLEANING AND COATING CONCRETE SURFACES, CLASS 5

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details**

This is a concrete texture coating utilized as a final concrete finish. This item is used on bridge widening jobs for applying a class 5 finish coating to existing concrete surfaces or where existing bridges/walls within the limits of a project require a class 5 finish coating.

Per specification, "The cost of coating new concrete will not be paid for separately, but will be included in the cost of the item to which it is applied."

Show locations in plans w/ quantity block.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Structures Design Manual, Vol 2- Detailing Manual, 13.13

**Specifications** Section 400

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400-143-** **CLEANING AND COATING CONCRETE SURFACES, CLASS 5** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400143 | CLEANING & COATING CONCRETE SURFACE, CLASS 5 | SF | | 1/1/2010 | |

## 400-145- A CLEANING CONCRETE SURFACE

**Unit** LS/SF; LS/M2 **Accuracy** Lump Sum (Square Foot); Lump Sum (Square Meter) **PlanQuantity?** yes

**Notes**

**Details**

Intended for cleaning existing class 5 finish coating of existing bridge. Show locations in plans w/ quantity block. Include pay item note in plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **400-145- A** **CLEANING CONCRETE SURFACE** **LS/SF**

A = location
Blank (Above Water)
1 (Underwater)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400145 | CLEANING CONCRETE SURFACE | SF | T | 1/1/2010 | |

## 400-147- COMPOSITE NEOPRENE PADS

**Unit** CF; M3 **Accuracy** 1/10 Cubic Foot; 1/100 Cubic Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for composite (steel reinforced) neoprene bearing pads for bridges. Include cost of plain neoprene bearing pads in cost of concrete superstructure component. Add pay item note for this case. Show locations in plans w/ quantity block.
For replacement of neoprene pads, refer to pay item 400-140.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-04: Volume Measure Items and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 6.5, Normally requires SHOP DRAWINGS
Index No. 20500, 20501

**Specifications** Section 400

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400-147-** **COMPOSITE NEOPRENE PADS** **CF**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400147 | COMPOSITE NEOPRENE PADS | CF | | 1/1/2010 | |

## 400-153- NON SHRINK GROUT- MISCELLANEOUS

**Unit** CF; M3 **Accuracy** 1/10 Cubic Foot; 1/100 Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

For rehabilitation/widening projects only. Use 10.0 CF (0.03 M3) as a minimum quantity. Show locations in plans w/ quantity block. Include pay item note in plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-04: Volume Measure Items and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the computation book form. | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **400-153-** **NON SHRINK GROUT- MISCELLANEOUS** **CF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0400153 | NON SHRINK GROUT, F&I, MISCELLANEOUS- STRUCTURES REHAB | CF | T | 1/1/2010 | |

## 401- 70- A RESTORE SPALLED AREAS

**Unit** CF; M3 **Accuracy** 1/10 Cubic Foot; 1/100 Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

Used on rehabilitation projects to cover costs of patching existing concrete spalls. Show locations in plans w/ quantity block. Include pay item note in plans. Cost includes cost of preparation, labor and material of concrete patch.
Use 10.0 CF (1.00 M3) as a minimum quantity.

MATERIAL REQUIREMENTS NEEDED in the Technical Special Provisions.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-04: Volume Measure Items and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **401- 70- A** **RESTORE SPALLED AREAS** **CF**

A =
1 (Epoxy)
2 (Latex Modified Mortar - Styrene-Butadiene)
3 (Latex Modified Mortar - Acrylic)
4 (Portland Cement Grout)
5 (Contractors Option)
6 (Thermosetting Polymer Concrete)
Blank (Gunite)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0401 70 | RESTORE SPALLED AREAS, GUNITE | CF | T | 1/1/2010 | |
| 0401 70 1 | RESTORE SPALLED AREAS, EPOXY | CF | T | 1/1/2010 | |
| 0401 70 2 | RESTORE SPALLED AREAS, LATEX MODIFIED MORTAR- STYRENE BUTADIENE | CF | T | 1/1/2010 | |
| 0401 70 3 | RESTORE SPALLED AREAS, LATEX MODIFIED MORTAR- ACRYLIC | CF | T | 1/1/2010 | |
| 0401 70 4 | RESTORE SPALLED AREAS, PORTLAND CEMENT GROUT | CF | T | 1/1/2010 | |
| 0401 70 5 | RESTORE SPALLED AREAS, CONTRACTORS OPTION | CF | T | 1/1/2010 | |
| 0401 70 6 | SPALLED AREAS RESTORE, THERMOSETTING POLYMER CONC | CF | T | 1/1/2010 | |

**405- 70- A** **LATEX MODIFIED PORTLAND CEMENT CONCRETE**

**Unit** CF; M3 **Accuracy** 1/10 Cubic Foot; 1/100 Cubic Meter **PlanQuantity?** no

**Notes**

**Details** Intended for thin deck overlays. Show locations in plans w/ quantity block. Include pay item note in plans. Cost includes cost of preparation, labor and material of latex modified concrete overlay.
Use 10.0 CF (1.00 M3) as a minimum quantity.

For Plan Detail/Tech Spec items: The Designer should ensure that the description,

materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **405- 70- A** **LATEX MODIFIED PORTLAND CEMENT CONCRETE** **CF**

A =
1 (Type I Cement)
2 (Type III Cement)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0405 70 1 | LATEX MODIFIED PORTLAND CEMENT CONCRETE, TYPE I | CF | T | 1/1/2010 | |
| 0405 70 2 | LATEX MODIFIED PORTLAND CEMENT CONC,TYPE III | CF | T | 1/1/2010 | |

## 407- 1- AB PRECAST THREE SIDED CULVERT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**
Per specifications, 3 sided box culvers are not an equivalent substitution for Precast Concrete Box Culverts. Refer to PPM for selection and design criteria.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Chapter 33

**Trns·port**

**Other Standards**

**Specifications** Section 407

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct. 407- 1- AB** **PRECAST THREE SIDED CULVERT** **LF**

A= Span (Total width of culvert when multiple barrels)
1 (up to 20 ft)
2 (20-29 ft)
3 (30-39 ft)
4 (40-49 ft)
5 (50 ft or greater)

B= Height
1 (up to 10 ft)
2 (10 ft or greater)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0407 1 21 | PRECAST CONCRETE 3 SIDE BOX CULVERT, 20-29' SPAN, < OR = 10' HEIGHT | LF | | 1/1/2010 | |

## 411- 1- EPOXY MATERIAL FOR CRACK INJECTION

**Unit** GA; LI **Accuracy** Gallon; Liter **PlanQuantity?** no

**Notes**

**Details** Items 411-1 and 411-2 are for separate payment of materials and labor for Epoxy Injection of cracks in existing concrete surfaces, in accordance with specification Section 411.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-04: Volume Measure Items and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications** Section 411

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 411- 1-** **EPOXY MATERIAL FOR CRACK INJECTION** **GA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0411 1 | EPOXY MATERIAL FOR CRACK INJECTION- STRUCTURES REHAB | GA | | 1/1/2010 | |

## 411- 2- INJECT AND SEAL CRACK

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** See Item 411-1 for detail information.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 411

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 411- 2-** **INJECT AND SEAL CRACK** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0411 2 | CRACKS INJECT & SEAL- STRUCTURES REHAB | LF | | 1/1/2010 | |

## 413-149- PENETRANT SEALER

**Unit** GA; LI **Accuracy** Gallon; Liter **PlanQuantity?** no

**Notes**

**Details** NO SEPARATE PAYMENT FOR NEW, PRECAST ITEMS.
Pay Item for Rehabilitation jobs only. Intended to cover material cost of penetrant sealer.

Pay Item 413-154 to cover labor costs. Show locations in plans w/ quantity block.

**Related Items** **Required** 413-154 **Recommended**

**Design Forms and Documentation**
COMP 700-050-04: Volume Measure Items and Continuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 413
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **413-149-** **PENETRANT SEALER** **GA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0413149 | PENETRANT SEALER | GA | | 1/1/2010 | |

## 413-151- METHACRYLATE MONOMER

**Unit** GA; LI **Accuracy** Gallon; Liter **PlanQuantity?** no

**Notes**

**Details**
For use on rehabilitation projects to seal existing deck cracks. Contact State Materials (Gainesville Corrosion) Lab for assistance with Specs. Intended to cover material cost of methacrylate monomer. Pay Item 413-154 to cover labor costs. Show locations in plans w/ quantity block.

**Related Items** **Required** 413-154 **Recommended**

**Design Forms and Documentation**
COMP 700-050-04: Volume Measure Items and Continuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 413

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **413-151-** **METHACRYLATE MONOMER** **GA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0413151 | METHACRYLATE MONOMER | GA | | 1/1/2010 | |

## 413-154- CLEANING AND SEALING CONCRETE SURFACES: PENETRANT SEALER OR METHACRYLATES

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** no

**Notes**

**Details** NO SEPARATE PAYMENT for prestressed, precast items.

REFER TO SECTION 400 for other coatings.
Intended to cover labor cost of penetrant sealer or Methacrylates. Pay Item 413-149 or 413-151 to cover material costs. Show locations in plans w/ quantity block.

**Related Items** **Required** 413-149 or 413-151 **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 413

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **413-154-** **CLEANING AND SEALING CONCRETE SURFACES: PENETRANT SEALER OR METHACRYLATES** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0413154 | CLEANING & SEALING CONCRETE SURFACES - PENETRANT SEALER OR METHACRYLATES | SF | | 1/1/2010 | |

**415- 1- A** **REINFORCING STEEL**

**Unit** LB; KG **Accuracy** Pound; Kilogram **PlanQuantity?** yes

**Notes**

**Details**

Show locations in plans w/ quantity block by component (when component is constructed in phases break down quantity by phase). Include complete bar lists in plans.

APPROACH SLABS: Item No. 415- 1- 9 (2415- 1- 9) to be used with Item No. 400- 2- 10 (2400- 2- 10).

Misc Reinforcing Steel: Used per Index 289, 291, 2-2

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** ENDWALLS: Index No. 295
MISC: Index No. 280 for guard at pipe end
STEPS: Index No. 521

**Specifications** Section 415

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **415- 1- A** **REINFORCING STEEL** **LB**

A =
1 (Roadway)
3 (Retaining Wall)
4 (Superstructure)
5 (Substructure)
6 (Miscellaneous)
8 (Bulkhead)
9 (Approach Slabs)
13 (Steps) valid through 12-31-2010; replaced by A=6

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0415 1 1 | REINF STEEL- ROADWAY | LB | | 1/1/2010 | |
| 0415 1 3 | REINFORCING STEEL- RETAINING WALL | LB | | 1/1/2010 | |
| 0415 1 4 | REINFORCING STEEL - SUPERSTRUCTURE | LB | | 1/1/2010 | |
| 0415 1 5 | REINFORCING STEEL- SUBSTRUCTURE | LB | | 1/1/2010 | |
| 0415 1 6 | REINFORCING STEEL- MISCELLANEOUS | LB | | 1/1/2010 | |
| 0415 1 8 | REINFORCING STEEL- BULKHEAD | LB | | 1/1/2010 | |
| 0415 1 9 | REINFORCING STEEL- APPROACH SLABS | LB | | 1/1/2010 | |
| 0415 1 13 | REINFORCING STEEL - STEPS | LB | | 1/1/2010 | |

## 415- 2- A REINFORCING STEEL- STAINLESS

**Unit** LB; KG **Accuracy** Pound; Kilogram **PlanQuantity?** no

**Notes**

**Details**

Coordinate the use of Stainless Steel with the State Structures Office.
Intended for stainless steel or stainless steel clad reinforcing. Show locations in plans w/ quantity block. Include bar lists.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **415- 2- A** **REINFORCING STEEL- STAINLESS** **LB**

A =
6 (Miscellaneous)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0415 2 6 | REINF STEEL- STAINLESS, MISCELLANEOUS | LB | T | 1/1/2010 | |

## 425- 1-AAB INLETS

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

"Partial" is used when an existing structure is to be modified.
"Modified" is used when the standard structure on new construction is modified. Modification of the Standard Index Drawing by adding weirs, notches, skimmers, and/or a change to dimensions and reinforcement, are to be detailed in the plans.
"Special" is not limited to any particular inlet type. If a designer has a need for something other than an inlet covered by the standard indexes, it is regarded as special (as in special design). Special Designs require signed and sealed drawings to be included in the plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumdrd.dgn: Summary of Drainage Structures

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 200, 201, 210, 211, 212, 213, 215, 216, 217, 218, 219, 220, 221, 230, 232, 233,235,240, 282

**Specifications** Section 425

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 1-AAB** **INLETS** **EA**

AA =
20 (Curb Type 9)
21 (Curb Type 10)
31 (Curb Type P-1) B not 3, 4, 7, or 8
32 (Curb Type P-2) B not 3, 4, 7, or 8
33 (Curb Type P-3) B not 3, 4, 7, or 8
34 (Curb Type P-4) B not 3, 4, 7, or 8
35 (Curb Type P-5) B not 3, 4, 7, or 8
36 (Curb Type P-6) B not 3, 4, 7, or 8
41 (Curb Type J-1) B not 3, 4, 7, or 8
42 (Curb Type J-2) B not 3, 4, 7, or 8

43 (Curb Type J-3) B not 3, 4, 7, or 8
44 (Curb Type J-4) B not 3, 4, 7, or 8
45 (Curb Type J-5) B not 3, 4, 7, or 8
46 (Curb Type J-6) B not 3, 4, 7, or 8
47 (Curb Type 7)
48 (Curb Type 8)
50 (Ditch Bottom Type A)
51 (Ditch Bottom Type B)
52 (Ditch Bottom Type C)
53 (Ditch Bottom Type C Mod) B not 9
54 (Ditch Bottom Type D)
55 (Ditch Bottom Type E)
56 (Ditch Bottom Type F)
57 (Ditch Bottom Type G)
58 (Ditch Bottom Type H)
59 (Ditch Bottom Type I)
60 (Ditch Bottom Type J)
61 (Ditch Bottom Type K)
70 (Gutter Type S)
71 (Gutter Type V)
72 (Gutter Type S Mod) B not 9
80 (Med Barrier Type 1)
81 (Med Barrier Type 2)
82 (Med Barrier Spec Type 1)
83 (Med Barrier Spec Type 2)
84 (Med Barrier Type 3)
85 (Med Barrier Type 4)
86 (Med Barrier Type 5)
88(Barrier Wall, Rigid, Curb & Gutter)
89 (Barrier Wall)
90 (Special) B not 7 or 8*
91 (Closed Flume) B= 0

B =
1 (=< 10')
2 (> 10')
3 (J Bot, < 10') (Standard Index 201)
4 (J Bot, > 10') (Standard Index 201)
5 (Partial)
7 (J Bottom, <10', Special)
8 (J Bottom, >10', Special)
9 (Modify)
0 (N/A) only for A=91

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 1201 | INLETS, CURB, TYPE 9, <10' | EA | | 1/1/2010 | |
| 0425 1202 | INLETS, CURB, TYPE 9, >10' | EA | | 1/1/2010 | |
| 0425 1203 | INLETS, CURB, TYPE 9, J BOT, <10' | EA | | 1/1/2010 | |
| 0425 1205 | INLETS, CURB, TYPE 9, PARTIAL | EA | | 1/1/2010 | |
| 0425 1209 | INLETS, CURB, TYPE 9, MODIFY | EA | | 1/1/2010 | |
| 0425 1211 | INLETS, CURB, TYPE 10, <10' | EA | | 1/1/2010 | |
| 0425 1213 | INLETS, CURB, TYPE 10, J BOT <10' | EA | | 1/1/2010 | |
| 0425 1215 | INLETS, CURB, TYPE 10, PARTIAL | EA | | 1/1/2010 | |

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|---|---|---|---|
| 0425 1311 | INLETS, CURB, TYPE P-1, <10' | EA | 1/1/2010 |
| 0425 1312 | INLETS, CURB TYPE P-1, >10' | EA | 1/1/2010 |
| 0425 1315 | INLETS, CURB TYPE P-1, PARTIAL | EA | 1/1/2010 |
| 0425 1319 | INLETS, CURB TYPE P-1, MODIFY | EA | 1/1/2010 |
| 0425 1321 | INLETS, CURB, TYPE P-2, <10' | EA | 1/1/2010 |
| 0425 1322 | INLETS, CURB, TYPE P-2, >10' | EA | 1/1/2010 |
| 0425 1325 | INLETS, CURB, TYPE P-2, PARTIAL | EA | 1/1/2010 |
| 0425 1329 | INLETS, CURB TYPE P-2, MODIFY | EA | 1/1/2010 |
| 0425 1331 | INLETS, CURB, TYPE P-3, <10' | EA | 1/1/2010 |
| 0425 1332 | INLETS, CURB. TYPE P-3, >10' | EA | 1/1/2010 |
| 0425 1335 | INLETS, CURB, TYPE P-3, PARTIAL | EA | 1/1/2010 |
| 0425 1341 | INLETS, CURB, TYPE P-4, <10' | EA | 1/1/2010 |
| 0425 1342 | INLETS, CURB, TYPE P-4, >10' | EA | 1/1/2010 |
| 0425 1345 | INLETS, CURB, TYPE P-4, PARTIAL | EA | 1/1/2010 |
| 0425 1351 | INLETS, CURB, TYPE P-5, <10' | EA | 1/1/2010 |
| 0425 1352 | INLETS, CURB, TYPE P-5, >10' | EA | 1/1/2010 |
| 0425 1355 | INLETS, CURB, TYPE P-5, PARTIAL | EA | 1/1/2010 |
| 0425 1359 | INLETS, CURB, TYPE P-5, MODIFY | EA | 1/1/2010 |
| 0425 1361 | INLETS, CURB, TYPE P-6, <10' | EA | 1/1/2010 |
| 0425 1362 | INLETS, CURB, TYPE P-6, >10' | EA | 1/1/2010 |
| 0425 1365 | INLETS, CURB, TYPE P-6, PARTIAL | EA | 1/1/2010 |
| 0425 1369 | INLETS, CURB, TYPE P-6, MODIFY | EA | 1/1/2010 |
| 0425 1411 | INLETS, CURB TYPE J-1, <10' | EA | 1/1/2010 |
| 0425 1412 | INLETS, CURB, TYPE J-1, >10' | EA | 1/1/2010 |
| 0425 1415 | INLETS, CURB, TYPE J-1, PARTIAL | EA | 1/1/2010 |
| 0425 1419 | INLETS, CURB, TYPE J-1, MODIFY | EA | 1/1/2010 |
| 0425 1421 | INLETS, CURB, TYPE J-2, <10' | EA | 1/1/2010 |
| 0425 1422 | INLETS, CURB, TYPE J-2, >10' | EA | 1/1/2010 |
| 0425 1425 | INLETS, CURB, TYPE J-2, PARTIAL | EA | 1/1/2010 |
| 0425 1429 | INLETS, CURB, TYPE J-2, MODIFY | EA | 1/1/2010 |
| 0425 1431 | INLETS, CURB, TYPE J-3, <10' | EA | 1/1/2010 |
| 0425 1432 | INLETS, CURB, TYPE J-3, >10' | EA | 1/1/2010 |
| 0425 1435 | INLETS, CURB, TYPE J-3, PARTIAL | EA | 1/1/2010 |
| 0425 1441 | INLETS, CURB, TYPE J-4, <10' | EA | 1/1/2010 |
| 0425 1442 | INLETS, CURB, TYPE J-4, >10' | EA | 1/1/2010 |
| 0425 1445 | INLETS, CURB, TYPE J-4, PARTIAL | EA | 1/1/2010 |
| 0425 1451 | INLETS, CURB, TYPE J-5, <10' | EA | 1/1/2010 |
| 0425 1452 | INLETS, CURB, TYPE J-5, >10' | EA | 1/1/2010 |
| 0425 1455 | INLETS, CURB, TYPE J-5, PARTIAL | EA | 1/1/2010 |
| 0425 1459 | INLETS, CURB, TYPE J-5, MODIFY | EA | 1/1/2010 |
| 0425 1461 | INLETS, CURB, TYPE J-6, <10' | EA | 1/1/2010 |
| 0425 1462 | INLETS, CURB, TYPE J-6, >10' | EA | 1/1/2010 |
| 0425 1465 | INLETS, CURB, TYPE J-6, PARTIAL | EA | 1/1/2010 |

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|---|---|---|---|
| 0425 1471 | INLETS, CURB, TYPE 7, <10' | EA | 1/1/2010 |
| 0425 1472 | INLETS, CURB, TYPE 7, >10' | EA | 1/1/2010 |
| 0425 1473 | INLETS, CURB, TYPE 7, J BOT , <10' | EA | 1/1/2010 |
| 0425 1474 | INLETS, CURB, TYPE 7, J BOT ,>10' | EA | 1/1/2010 |
| 0425 1475 | INLETS, CURB, TYPE 7, PARTIAL | EA | 1/1/2010 |
| 0425 1479 | INLETS, CURB, TYPE 7, MODIFY | EA | 1/1/2010 |
| 0425 1481 | INLETS, CURB, TYPE 8, <10' | EA | 1/1/2010 |
| 0425 1483 | INLETS, CURB, TYPE 8, J BOT , <10' | EA | 1/1/2010 |
| 0425 1484 | INLETS, CURB, TYPE 8, J BOT ,>10' | EA | 1/1/2010 |
| 0425 1485 | INLETS, CURB, TYPE 8, PARTIAL | EA | 1/1/2010 |
| 0425 1489 | INLETS, CURB, TYPE 8, MODIFY | EA | 1/1/2010 |
| 0425 1501 | INLETS, DT BOT, TYPE A, <10' | EA | 1/1/2010 |
| 0425 1502 | INLETS, DT BOT, TYPE A, >10' | EA | 1/1/2010 |
| 0425 1503 | INLETS, DT BOT, TYPE A, J BOT, <10' | EA | 1/1/2010 |
| 0425 1504 | INLETS, DT BOT, TYPE A, J BOT, >10' | EA | 1/1/2010 |
| 0425 1505 | INLETS, DT BOT, TYPE A, PARTIAL | EA | 1/1/2010 |
| 0425 1511 | INLETS, DT BOT, TYPE B, <10' | EA | 1/1/2010 |
| 0425 1512 | INLETS, DT BOT, TYPE B, >10' | EA | 1/1/2010 |
| 0425 1513 | INLETS, DT BOT, TYPE B, J BOT, <10' | EA | 1/1/2010 |
| 0425 1514 | INLETS, DT BOT, TYPE B, J BOT, >10' | EA | 1/1/2010 |
| 0425 1515 | INLETS, DT BOT, TYPE B, PARTIAL | EA | 1/1/2010 |
| 0425 1519 | INLETS, DT BOT, TYPE B, MODIFY | EA | 1/1/2010 |
| 0425 1521 | INLETS, DT BOT, TYPE C,<10' | EA | 1/1/2010 |
| 0425 1522 | INLETS, DT BOT, TYPE C,>10' | EA | 1/1/2010 |
| 0425 1523 | INLETS, DT BOT, TYPE C,JBOT, <10' | EA | 1/1/2010 |
| 0425 1524 | INLETS, DT BOT, TYPE C, JBOT, >10' | EA | 1/1/2010 |
| 0425 1525 | INLETS, DITCH BOTTOM, TYPE C, PARTIAL | EA | 1/1/2010 |
| 0425 1529 | INLETS, DT BOT, TYPE C, MODIFY | EA | 1/1/2010 |
| 0425 1531 | INLETS, DT BOT, TYPE C, MODIFIED, <10'' | EA | 1/1/2010 |
| 0425 1532 | INLETS, DT BOT, TYPE C, MODIFIED, >10'' | EA | 1/1/2010 |
| 0425 1533 | INLETS, DT BOT, TYPE C, MODIFIED, J BOT, <10'' | EA | 1/1/2010 |
| 0425 1534 | INLETS, DT BOT, TYPE C, MODIFIED, J BOT, >10'' | EA | 1/1/2010 |
| 0425 1535 | INLETS, DT BOT, TYPE C, MODIFIED, PARTIAL | EA | 1/1/2010 |
| 0425 1541 | INLETS, DT BOT, TYPE D, <10' | EA | 1/1/2010 |
| 0425 1542 | INLETS, DT BOT, TYPE D, >10' | EA | 1/1/2010 |
| 0425 1543 | INLETS, DITCH BOTTOM, TYPE D, J BOT, <10' | EA | 1/1/2010 |
| 0425 1544 | INLETS, DITCH BOTTOM, TYPE D, J BOT, >10' | EA | 1/1/2010 |
| 0425 1545 | INLETS, DITCH BOTTOM, TYPE D, PARTIAL | EA | 1/1/2010 |

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|---|---|---|---|
| 0425 1547 | INLETS, DITCH BOTTOM, TYPE D, J BOTTOM, <10', SPECIAL | EA | 1/1/2010 |
| 0425 1549 | INLETS, DT BOT, TYPE D, MODIFY | EA | 1/1/2010 |
| 0425 1551 | INLETS, DT BOT, TYPE E, <10' | EA | 1/1/2010 |
| 0425 1552 | INLETS, DT BOT, TYPE E, >10' | EA | 1/1/2010 |
| 0425 1553 | INLETS, DT BOT, TYPE E, J BOT, <10' | EA | 1/1/2010 |
| 0425 1554 | INLETS, DT BOT, TYPE E, J BOT, >10' | EA | 1/1/2010 |
| 0425 1555 | INLETS, DT BOT, TYPE E, PARTIAL | EA | 1/1/2010 |
| 0425 1557 | INLETS, DITCH BOTTOM, TYPE E, J BOTTOM, <10', SPECIAL | EA | 1/1/2010 |
| 0425 1559 | INLETS, DT BOT, TYPE E, MODIFY | EA | 1/1/2010 |
| 0425 1561 | INLETS, DT BOT, TYPE F, <10' | EA | 1/1/2010 |
| 0425 1562 | INLETS, DT BOT, TYPE F, >10' | EA | 1/1/2010 |
| 0425 1563 | INLETS, DITCH BOTTOM, TYPE F, J BOT, <10' | EA | 1/1/2010 |
| 0425 1564 | INLETS, DITCH BOTTOM, TYPE F, J BOT, >10' | EA | 1/1/2010 |
| 0425 1565 | INLETS, DITCH BOTTOM, PARTIAL | EA | 1/1/2010 |
| 0425 1567 | INLETS, DITCH BOTTOM, TYPE F, J BOT, <10' - SPECIAL | EA | 1/1/2010 |
| 0425 1568 | INLETS,DITCH BOT,TYPE F, J BOT, >10', SPECIAL | EA | 1/1/2010 |
| 0425 1569 | INLETS, DITCH BOTTOM, TYPE F, MODIFY | EA | 1/1/2010 |
| 0425 1571 | INLETS, DITCH BOTTOM, TYPE G, <10' | EA | 1/1/2010 |
| 0425 1572 | INLETS, DITCH BOTTOM, TYPE G, >10' | EA | 1/1/2010 |
| 0425 1573 | INLETS, DITCH BOTTOM, TYPE G, J BOT, <10' | EA | 1/1/2010 |
| 0425 1574 | INLETS, DITCH BOTTOM, TYPE G, J BOT, >10' | EA | 1/1/2010 |
| 0425 1577 | INLETS, DITCH BOTTOM, TYPE G, J BOT, <10' , SPECIAL | EA | 1/1/2010 |
| 0425 1578 | INLETS, DITCH BOTTOM, TYPE G, J BOT, >10' , SPECIAL | EA | 1/1/2010 |
| 0425 1579 | INLETS, DITCH BOTTOM, TYPE G, MODIFY | EA | 1/1/2010 |
| 0425 1581 | INLETS, DT BOT, TYPE H, <10' | EA | 1/1/2010 |
| 0425 1582 | INLETS, DT BOT, TYPE H, >10' | EA | 1/1/2010 |
| 0425 1583 | INLETS, DT BOT, TYPE H, <10' | EA | 1/1/2010 |
| 0425 1585 | INLETS, DT BOT, TYPE H, PARTIAL | EA | 1/1/2010 |
| 0425 1587 | INLETS, DITCH BOTTOM, TYPE H, J BOTTOM, <10', SPECIAL | EA | 1/1/2010 |
| 0425 1589 | INLETS, DT BOT, TYPE H, MODIFY | EA | 1/1/2010 |
| 0425 1601 | INLETS, DT BOT, TYPE J, <10' | EA | 1/1/2010 |
| 0425 1602 | INLETS, DT BOT, TYPE J, >10' | EA | 1/1/2010 |
| 0425 1603 | INLETS, DT BOT, TYPE J, J BOT, <10' | EA | 1/1/2010 |
| 0425 1604 | INLETS, DT BOT, TYPE J, JBOT,>10' | EA | 1/1/2010 |
| 0425 1609 | INLETS, DT BOT, TYPE J, MODIFY | EA | 1/1/2010 |
| 0425 1611 | INLETS, DITCH BOTTOM, TYPE K, <10' | EA | 1/1/2010 |

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|---|---|---|---|
| 0425 1617 | INLETS, DITCH BOTTOM, TYPE K, J BOTTOM, <10' SPECIAL | EA | 1/1/2010 |
| 0425 1619 | INLETS, DITCH BOTTOM, TYPE K, J BOTTOM, MODIFY | EA | 1/1/2010 |
| 0425 1701 | INLETS, GUTTER, TYPE S, <10' | EA | 1/1/2010 |
| 0425 1702 | INLETS, GUTTER, TYPE S, >10' | EA | 1/1/2010 |
| 0425 1703 | INLETS, GUTTER, TYPE S, J BOTTOM <10' | EA | 1/1/2010 |
| 0425 1704 | INLETS, GUTTER, TYPE S, J BOTTOM, >10' | EA | 1/1/2010 |
| 0425 1705 | INLETS, GUTTER, TYPE S, PARTIAL | EA | 1/1/2010 |
| 0425 1707 | INLET,GUTTER TYPE S,J BOTTOM,<10',SPECIAL | EA | 1/1/2010 |
| 0425 1708 | INLET,GUTTER TYPE S,J BOTTOM,>10',SPECIAL | EA | 1/1/2010 |
| 0425 1711 | INLETS, GUTTER, TYPE V, <10' | EA | 1/1/2010 |
| 0425 1712 | INLETS, GUTTER, TYPE V, >10' | EA | 1/1/2010 |
| 0425 1713 | INLETS, GUTTER, TYPE V, J BOT, <10' | EA | 1/1/2010 |
| 0425 1714 | INLETS, GUTTER, TYPE V, J BOTTOM, >10' | EA | 1/1/2010 |
| 0425 1715 | INLETS, GUTTER, TYPE V, PARTIAL | EA | 1/1/2010 |
| 0425 1719 | INLETS, GUTTER, TYPE V, MODIFY | EA | 1/1/2010 |
| 0425 1725 | INLETS, GUTTER, TYPE S MOD, PARTIAL | EA | 1/1/2010 |
| 0425 1801 | INLETS, MEDIAN BARRIER, TYPE 1, <10' | EA | 1/1/2010 |
| 0425 1802 | INLETS, MEDIAN BARRIER, TYPE 1, >10' | EA | 1/1/2010 |
| 0425 1803 | INLETS, MEDIAN BARRIER, TYPE 1, J BOT, <10' | EA | 1/1/2010 |
| 0425 1804 | INLETS, MEDIAN BARRIER, TYPE 1, J BOT, >10' | EA | 1/1/2010 |
| 0425 1805 | INLETS, MEDIAN BARRIER, TYPE 1, PARTIAL | EA | 1/1/2010 |
| 0425 1807 | INLETS, MEDIAN BARRIER, TYPE 1, J BOT, <10' SPECIAL | EA | 1/1/2010 |
| 0425 1811 | INLETS, MEDIAN BARRIER, TYPE 2, <10' | EA | 1/1/2010 |
| 0425 1812 | INLETS, MEDIAN BARRIER, TYPE 2, >10' | EA | 1/1/2010 |
| 0425 1813 | INLETS, MEDIAN BARRIER, TYPE 2, J BOT, <10' | EA | 1/1/2010 |
| 0425 1814 | INLETS, MEDIAN BARRIER, TYPE 2, J BOT, >10' | EA | 1/1/2010 |
| 0425 1815 | INLETS, MEDIAN BARRIER, TYPE 2, PARTIAL | EA | 1/1/2010 |
| 0425 1833 | INLETS, MEDIAN BARRIER SPEC TYPE 2, J BOT, <10' | EA | 1/1/2010 |
| 0425 1841 | INLETS, MEDIAN BARRIER, TYPE 3, <10' | EA | 1/1/2010 |
| 0425 1842 | INLETS, MEDIAN BARRIER, TYPE 3, >10' | EA | 1/1/2010 |
| 0425 1843 | INLETS, MEDIAN BARRIER, TYPE 3, J BOT, <10' | EA | 1/1/2010 |
| 0425 1844 | INLETS, MEDIAN BARRIER, TYPE 3, J BOT, >10' | EA | 1/1/2010 |
| 0425 1845 | INLETS, MEDIAN BARRIER, TYPE 3, PARTIAL | EA | 1/1/2010 |

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|---|---|---|---|---|
| 0425 1847 | INLETS, MEDIAN BARRIER, TYPE 3, J BOTTOM, <10', SPECIAL | EA | | 1/1/2010 |
| 0425 1848 | INLETS, MEDIAN BARRIER, TYPE 3, J BOTTOM, >10', SPECIAL | EA | | 1/1/2010 |
| 0425 1851 | INLETS, MEDIAN BARRIER, TYPE 4, <10' | EA | | 1/1/2010 |
| 0425 1852 | INLETS, MEDIAN BARRIER, TYPE 4, >10' | EA | | 1/1/2010 |
| 0425 1853 | INLETS, MEDIAN BARRIER, TYPE 4, J BOT, <10' | EA | | 1/1/2010 |
| 0425 1854 | INLETS, MEDIAN BARRIER, TYPE 4, J BOT, >10' | EA | | 1/1/2010 |
| 0425 1855 | INLETS, MEDIAN BARRIER, TYPE 4, PARTIAL | EA | | 1/1/2010 |
| 0425 1857 | INLETS, MEDIAN BARRIER, TYPE 4, J BOTTOM, <10', SPECIAL | EA | | 1/1/2010 |
| 0425 1859 | INLETS, MEDIAN BARRIER TYPE 4, MODIFY | EA | | 1/1/2010 |
| 0425 1861 | INLETS, MEDIAN BARRIER TYPE 5, < 10' | EA | | 1/1/2010 |
| 0425 1862 | INLETS, MB, TYPE 5, >10' | EA | | 1/1/2010 |
| 0425 1863 | INLETS, MB, TYPE 5, J BOT, <10' | EA | | 1/1/2010 |
| 0425 1864 | INLETS, MB, TYPE 5, J BOT, >10' | EA | | 1/1/2010 |
| 0425 1865 | INLETS, MB, TYPE 5, PARTIAL | EA | | 1/1/2010 |
| 0425 1869 | INLETS, MB, TYPE 5, MODIFY | EA | | 1/1/2010 |
| 0425 1881 | INLETS, BARRIER WALL, RIGID, CURB & GUTTER, <10' | EA | | 1/1/2010 |
| 0425 1882 | INLETS, BARRIER WALL, RIGID, CURB & GUTTER, >10' | EA | | 1/1/2010 |
| 0425 1883 | INLETS, BARRIER WALL, RIGID, CURB & GUTTER, J BOT<10' | EA | | 1/1/2010 |
| 0425 1884 | INLETS, BARRIER WALL, RIGID, CURB & GUTTER, J BOT>10' | EA | | 1/1/2010 |
| 0425 1885 | INLETS, BARRIER WALL, RIGID, CURB & GUTTER, PARTIAL | EA | | 1/1/2010 |
| 0425 1887 | INLETS, BARRIER WALL, RIGID, CURB & GUTTER, J-BOTTOM,<10', S | EA | | 1/1/2010 |
| 0425 1889 | INLETS, BARRIER WALL, RIGID, CURB & GUTTER, MODIFY | EA | | 1/1/2010 |
| 0425 1891 | INLETS, BARRIER WALL, <10' | EA | | 1/1/2010 |
| 0425 1892 | INLETS, BARRIER WALL, >10' | EA | | 1/1/2010 |
| 0425 1893 | INLETS, BARRIER WALL, J BOT, <10' | EA | | 1/1/2010 |
| 0425 1894 | INLETS, BARRIER WALL, J BOT, >10' | EA | | 1/1/2010 |
| 0425 1895 | INLETS, BARRIER WALL, PARTIAL | EA | | 1/1/2010 |
| 0425 1898 | INLETS, BARRIER WALL, J BOT, >10', SPECIAL | EA | | 1/1/2010 |
| 0425 1899 | INLETS, BARRIER WALL, MODIFY | EA | | 1/1/2010 |
| 0425 1901 | INLETS, SPECIAL, <10' | EA | D | 1/1/2010 |
| 0425 1902 | INLETS, SPECIAL, >10' | EA | D | 1/1/2010 |
| 0425 1903 | INLETS, SPECIAL, J BOTTOM <10' | EA | D | 1/1/2010 |
| 0425 1904 | INLETS, SPECIAL, J BOTTOM >10' | EA | D | 1/1/2010 |

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|---|---|---|---|---|
| 0425 1905 | INLETS, SPECIAL, PARTIAL | EA | D | 1/1/2010 |
| 0425 1909 | INLETS, SPECIAL, MODIFY | EA | D | 1/1/2010 |
| 0425 1910 | INLETS, CLOSED FLUME | EA | | 1/1/2010 |

## 425- 2-AAB MANHOLES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** The designer should consider calling for a ring and cover where routine cleanout and inspection is anticipated, such as a French Drain.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 200, 201
**Specifications** Section 425
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 2-AAB** **MANHOLES** **EA**

AA =
4 (P-7)
6 (P-8)
7 (J-7)
9 (J-8)
10 (Special) Plan Detail and/or Tech Spec required

B =
1 ( =< 10') Refer to Index 201
2 ( > 10') " " " "
3 (Partial)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 2 41 | MANHOLES, P-7, <10' | EA | | 1/1/2010 | |
| 0425 2 42 | MANHOLES, P-7, >10' | EA | | 1/1/2010 | |
| 0425 2 43 | MANHOLES, P-7, PARTIAL | EA | | 1/1/2010 | |
| 0425 2 61 | MANHOLES, P-8, <10' | EA | | 1/1/2010 | |
| 0425 2 62 | MANHOLES, P-8, >10' | EA | | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0425 2 63 | MANHOLES, P-8, PARTIAL | EA | | 1/1/2010 |
| 0425 2 71 | MANHOLES, J-7, <10' | EA | | 1/1/2010 |
| 0425 2 72 | MANHOLES, J-7, >10' | EA | | 1/1/2010 |
| 0425 2 73 | MANHOLES, J-7, PARTIAL | EA | | 1/1/2010 |
| 0425 2 91 | MANHOLES, J-8, <10' | EA | | 1/1/2010 |
| 0425 2 92 | MANHOLES, J-8, >10' | EA | | 1/1/2010 |
| 0425 2 93 | MANHOLES, J-8, PARTIAL | EA | | 1/1/2010 |
| 0425 2101 | MANHOLES, SPECIAL, <10' | EA | T | 1/1/2010 |
| 0425 2102 | MANHOLES, SPECIAL, >10' | EA | T | 1/1/2010 |
| 0425 2103 | MANHOLES, SPECIAL, PARTIAL | EA | T | 1/1/2010 |
| 0425 2110 | MANHOLES, REPAIR | EA | T | 1/1/2010 |

## 425- 3-AAB JUNCTION BOX (DRAINAGE)

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Refer to the specifications for requirements.

REPAIR: Detail repairs to be completed in the plans or specifications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumdrd.dgn: Summary of Drainage Structures

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 200, 201

**Specifications** Section 425

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 3-AAB** **JUNCTION BOX (DRAINAGE)** **EA**

AA =
4 (P-7)
6 (J-7)
5 (Repair) B=0

8 (Special)*
9 (Utility)
10 (Utility, Modify)
11 (Utility, Remove)

B =
1 ( =< 10') Refer to Index 201
2 ( > 10') " " "
3 (Partial)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 3 41 | JUNCTION BOX, DRAINAGE, P-7, <10' | EA | | 1/1/2010 | |
| 0425 3 42 | JUNCTION BOXES, P-7, >10' | EA | | 1/1/2010 | |
| 0425 3 43 | JUNCTION BOX, DRAINAGE, P-7, PARTIAL | EA | | 1/1/2010 | |
| 0425 3 50 | JUNCTION BOX, DRAINAGE, REPAIR | EA | T | 7/1/2020 | |
| 0425 3 61 | JUNCTION BOXES, J-7, <10' | EA | | 1/1/2010 | |
| 0425 3 63 | JUNCTION BOXES, DRAINAGE, J-7, PARTIAL | EA | | 1/1/2010 | |
| 0425 3 81 | JUNCTION BOX, DRAINAGE, SPECIAL, < 10' | EA | | 1/1/2010 | |
| 0425 3 82 | JUNCTION BOX, DRAINAGE, SPECIAL, > 10' | EA | | 1/1/2010 | |
| 0425 3 83 | JUNCTION BOX, DRAINAGE, SPECIAL, PARTIAL | EA | | 1/1/2010 | |
| 0425 3 91 | JUNCTION BOX, DRAINAGE, UTILITY, < 10' | EA | | 1/1/2010 | |
| 0425 3 92 | JUNCTION BOX, DRAINAGE, UTILITY, > 10' | EA | | 1/1/2010 | |

## 425- 4- INLET- ADJUST

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Consists of changing the vertical placement of an existing inlet so that it will conform to the finished grade as designated in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 200, 201, 210
**Specifications** Section 425
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 4-** **INLET- ADJUST** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 4 | INLETS, ADJUST | EA | | 1/1/2010 | |

## 425- 5- A MANHOLES- ADJUST

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Consists of changing the vertical placement of an existing manhole so that it will conform to the finished grade as designated in the plans.

Note: When lowering/raising manholes for milling, payment is per manhole. Do not double manhole quantity for each activity.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumdrd.dgn: Summary of Drainage Structures

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 200, 201

**Specifications** Section 425

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 5- A** **MANHOLES- ADJUST** **EA**

A =
Blank (Standard)
1 (Utilities)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 5 | MANHOLE, ADJUST | EA | | 1/1/2010 | |
| 0425 5 1 | MANHOLE, ADJUST, UTILITIES | EA | | 1/1/2010 | |

## 425- 6- VALVE BOX- ADJUST

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 425
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 6-** **VALVE BOX- ADJUST** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 6 | VALVE BOXES, ADJUST | EA | | 1/1/2010 | |

**425- 8-** **DRAINAGE STRUCTURES, MISCELLANEOUS- ADJUST**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 425
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 8-** **DRAINAGE STRUCTURES, MISCELLANEOUS- ADJUST** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 8 | DRAINAGE STRUCTURES, MISCELLANEOUS, ADJUST | EA | | 1/1/2010 | |

## 425- 10- YARD DRAIN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For use outside of the R/W. Refer to Design Standard for details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 282
**Specifications** Section 425
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 10-** **YARD DRAIN** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 10 | YARD DRAIN | EA | | 1/1/2010 | |

## 425- 11- DRAINAGE STRUCTURE- MODIFY EXISTING

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumdrd.dgn: Summary of Drainage Structures

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 11-** **DRAINAGE STRUCTURE- MODIFY EXISTING** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 11 | DRAINAGE STRUCTURE MODIFY | EA | T | 1/1/2010 | |

## 425- 71- INLETS RELOCATION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumdrd.dgn: Summary of Drainage Structures

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

*TRNS*PORT Category (DRAFT FIELD):* 0200 Roadway

**Struct.** **425- 71-** **INLETS RELOCATION** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 71 | INLETS RELOCATING | EA | T | 1/1/2010 | |

## 425- 74- A MANHOLES AND INLETS, CLEANING & SEALING

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 7, 13

*TRNS*PORT Category (DRAFT FIELD):* 0200 Roadway

**Struct.** **425- 74- A** **MANHOLES AND INLETS, CLEANING & SEALING** **EA**

A =
1 (<10')
2 (>10')

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 74 1 | MANHOLES & INLETS CLEANING & SEALING, <10' | EA | T | 1/1/2010 | |
| 0425 74 2 | MANHOLES & INLETS CLEANING & SEALING, >10' | EA | T | 1/1/2010 | |

## 425- 78- INLET CAP, PRECAST

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 200, 201, 280
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 78-** **INLET CAP, PRECAST** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 78 | INLET CAP, PRECAST | EA | T | 1/1/2010 | |

## 425- 82- REPLACE GRATE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**
Payment includes "…new grates, and removing and stockpiling existing grates", per specification.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumdrd.dgn: Summary of Drainage Structures
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**

**Other**
**Standards**
**Specifications**
Special Provision available
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **425- 82-** **REPLACE GRATE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0425 82 | REPLACE GRATE | EA | | 1/1/2010 | |

## 430- 94- AA DESILT PIPE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Includes furnishing equipment and labor necessary to desilt the pipe, and also includes disposing of all silt and debris removed during the desilting operation.
Summarize on plans by pipe location, diameter (or equivalent round diameter), and length to be desilted.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430- 94- AA** **DESILT PIPE** **LF**

AA= Pipe Diameter
1 (0 to 24")
2 (25-36")
3 (37-48")
4 (49-60")
5 (61" or greater)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430 94 1 | DESILTING PIPE, 0 - 24" | LF | | 1/1/2010 | |
| 0430 94 2 | DESILTING PIPE, 25 - 36" | LF | | 1/1/2010 | |
| 0430 94 3 | DESILTING PIPE, 37 - 48" | LF | | 1/1/2010 | |
| 0430 94 4 | DESILTING PIPE, 49 - 60" | LF | | 1/1/2010 | |
| 0430 94 5 | DESILTING PIPE, 61" OR GREATER | LF | | 1/1/2010 | |

## 430-17A-BCC PIPE CULVERT OPTIONAL MATERIAL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes** **Pipe Ranges valid through 12-31-2010. Specific pipe sizes effective 1/1/2011, but may be implemented 7-1-10.**

**Details** Show application, size, and material with class/gage/corrugation on the contract plans. Refer to Index 205 for valid sizes, class/gage/corrugation. For pipe other than round (elliptical concrete and metal pipe arch) show actual size, class/gage/corrugation shown on standard index 205. Use equivalent round pipe size for payment.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other** Drainage Manual

**Standards** Index No. 205

**Specifications** Section 430

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-17A-BCC** **PIPE CULVERT OPTIONAL MATERIAL** **LF**

A = Application
3 (Gutter Drain) GD
4 (Side Drain) SD
5 (Storm and Cross Drain)

B = Shape
1 (Round Shape)
2 (Other –Elliptical/Arch)

CC= Standard Pipe Sizes, valid through 12-31-2010
01 (up to 24")
02 (25 to 36")
03 (37 to 48")
04 (49 to 60")
05 (61" or greater)

CC = Standard Pipe Sizes, available for projects let 7-1-10; required Effective 1-1-2011
12 (12")
15 (15")
18 (18")
24 (24")
30 (30")
36 (36")
42 (42")
48 (48")
54 (54")
60 (60")
66 (66")
72 (72")
78 (78")
84 (84")
90 (90")
96 (96")
99 (99" or greater) Note size in plans

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430173101 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 0-24", GUTTER DRAIN | LF | | 1/1/2010 | 12/31/2010 |
| 0430173102 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 25-36", GUTTER DRAIN | LF | | 1/1/2010 | 12/31/2010 |
| 0430173103 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 37-48", GUTTER DRAIN | LF | | 1/1/2010 | 12/31/2010 |
| 0430173112 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 12", GUTTER DRAIN | LF | | 7/1/2010 | |
| 0430173115 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 15", GUTTER DRAIN | LF | | 7/1/2010 | |
| 0430173118 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 18", GUTTER DRAIN | LF | | 7/1/2010 | |
| 0430173124 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 24", GUTTER DRAIN | LF | | 7/1/2010 | |
| 0430173130 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 30", GUTTER DRAIN | LF | | 7/1/2010 | |
| 0430173136 | PIPE CULVERT OPTIONAL MATERIAL, ROUND, 36", GUTTER DRAIN | LF | | 7/1/2010 | |
| 0430173142 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 42", GUTTER DRAIN | LF | | 7/1/2010 | |
| 0430173148 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 37-48" GUTTER DRAIN | LF | | 7/1/2010 | 12/31/2010 |
| 0430173201 | PIPE CULVERT OPTIONAL MATERIAL, OTHER - ELLIP ARCH, 0-24", GUTTER DRAIN | LF | | 1/1/2010 | 12/31/2010 |
| 0430174101 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 0-24"SD | LF | | 1/1/2010 | 12/31/2010 |
| 0430174102 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 25-36"SD | LF | | 1/1/2010 | 12/31/2010 |

| | | | | |
|---|---|---|---|---|
| 0430174103 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 37-48"SD | LF | 1/1/2010 | 12/31/2010 |
| 0430174104 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 49-60"SD | LF | 1/1/2010 | 12/31/2010 |
| 0430174112 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 12"SD | LF | 7/1/2010 | |
| 0430174115 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 15"SD | LF | 7/1/2010 | |
| 0430174118 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 18"SD | LF | 7/1/2010 | |
| 0430174124 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 24"SD | LF | 1/1/2010 | |
| 0430174130 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 30"SD | LF | 7/1/2010 | |
| 0430174136 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 36"SD | LF | 7/1/2010 | |
| 0430174142 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 42"SD | LF | 7/1/2010 | |
| 0430174148 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 48"SD | LF | 7/1/2010 | |
| 0430174154 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 54"SD | LF | 7/1/2010 | |
| 0430174160 | PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 60"SD | LF | 7/1/2010 | |
| 0430174201 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER - ELLIP/ARCH, 0-24"SD | LF | 1/1/2010 | 12/31/2010 |
| 0430174202 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER - ELLIP/ARCH, 25-36"SD | LF | 1/1/2010 | 12/31/2010 |
| 0430174203 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER - ELLIP/ARCH, 37-48"SD | LF | 1/1/2010 | 12/31/2010 |
| 0430174204 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER - ELLIP/ARCH, 49-60"SD | LF | 1/1/2010 | 12/31/2010 |
| 0430174215 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER SHAPE - ELLIP/ARCH, 15"SD | LF | 7/1/2010 | |
| 0430174218 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER SHAPE - ELLIP/ARCH, 18"SD | LF | 7/1/2010 | |
| 0430174224 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER SHAPE - ELLIP/ARCH, 24"SD | LF | 7/1/2010 | |
| 0430174230 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER SHAPE - ELLIP/ARCH, 30"SD | LF | 7/1/2010 | |
| 0430174236 | PIPE CULVERT, OPTIONAL MATERIAL, OTHER SHAPE - ELLIP/ARCH, 36"SD | LF | 7/1/2010 | |
| 0430174248 | PIPE CULVERT,OPTIONAL MATERIAL,OTHER-ELIP/ARCH, 48"SD | LF | 7/1/2010 | |
| 0430175101 | PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 0-24"S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175102 | PIPE CULVERT, OPT MATERIAL, ROUND, 25-36"S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175103 | PIPE CULVERT, OPT MATERIAL, ROUND, 37-48"S/CD | LF | 1/1/2010 | 12/31/2010 |

| | | | | |
|---|---|---|---|---|
| 0430175104 | PIPE CULVERT, OPT MATERIAL, ROUND, 49-60"S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175105 | PIPE CULVERT, OPT MATERIAL, ROUND, 61" OR > S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175112 | PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 12"S/CD | LF | 7/1/2010 | |
| 0430175115 | PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 15"S/CD | LF | 7/1/2010 | |
| 0430175118 | PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 18"S/CD | LF | 7/1/2010 | |
| 0430175124 | PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 24"S/CD | LF | 7/1/2010 | |
| 0430175130 | PIPE CULVERT, OPT MATERIAL, ROUND, 30"S/CD | LF | 7/1/2010 | |
| 0430175136 | PIPE CULVERT, OPT MATERIAL, ROUND, 36"S/CD | LF | 7/1/2010 | |
| 0430175142 | PIPE CULVERT, OPT MATERIAL, ROUND, 42"S/CD | LF | 7/1/2010 | |
| 0430175148 | PIPE CULVERT, OPT MATERIAL, ROUND, 48"S/CD | LF | 7/1/2010 | |
| 0430175154 | PIPE CULVERT, OPT MATERIAL, ROUND, 54"S/CD | LF | 7/1/2010 | |
| 0430175160 | PIPE CULVERT, OPT MATERIAL, ROUND, 60"S/CD | LF | 7/1/2010 | |
| 0430175166 | PIPE CULVERT, OPT MATERIAL, ROUND, 66"S/CD | LF | 7/1/2010 | |
| 0430175172 | PIPE CULVERT, OPT MATERIAL, ROUND, 72"S/CD | LF | 7/1/2010 | |
| 0430175201 | PIPE CULVERT,OPTIONAL MATERIAL,OTHER-ELIP/ARCH, 0-24"S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175202 | PIPE CULVERT, OPT MATERIAL, OTHER - ELIP/ARCH, 25-36"S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175203 | PIPE CULVERT, OPT MATERIAL, OTHER - ELIP/ARCH, 37-48"S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175204 | PIPE CULVERT, OPT MATERIAL, OTHER - ELIP/ARCH, 49-60"S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175205 | PIPE CULVERT, OPT MATERIAL, OTHER - ELIP/ARCH, 61" OR >,S/CD | LF | 1/1/2010 | 12/31/2010 |
| 0430175215 | PIPE CULVERT,OPTIONAL MATERIAL,OTHER-ELIP/ARCH, 15"S/CD | LF | 7/1/2010 | |
| 0430175218 | PIPE CULVERT,OPTIONAL MATERIAL,OTHER-ELIP/ARCH, 18"S/CD | LF | 7/1/2010 | |
| 0430175224 | PIPE CULVERT,OPTIONAL MATERIAL,OTHER SHAPE-ELIP/ARCH, 24"S/CD | LF | 7/1/2010 | |
| 0430175230 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 30"S/CD | LF | 7/1/2010 | |
| 0430175236 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 36"S/CD | LF | 7/1/2010 | |

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|---|---|---|---|
| 0430175242 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 42"S/CD | LF | 7/1/2010 |
| 0430175248 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 48"S/CD | LF | 7/1/2010 |
| 0430175254 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 54"S/CD | LF | 7/1/2010 |
| 0430175260 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 66"S/CD | LF | 1/1/2010 |
| 0430175266 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 60"S/CD | LF | 1/1/2010 |
| 0430175272 | PIPE CULVERT, OPT MATERIAL, OTHER SHAPE - ELIP/ARCH, 72"S/CD | LF | 1/1/2010 |
| 0430175299 | PIPE CULVERT,OPTIONAL MATERIAL,OTHER SHAPE-ELIP/ARCH, 99" OR >, S/CD | LF | 7/1/2010 |

## 430-200-ABB FLARED END SECTION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended for use outside the clear zone on median drain and cross drain installations. Pipe sizes 12" and 15" (300 mm and 375 mm) are permitted within the clear zone. Specifically not intended for side drain installation.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBSDMES or SBSDMESFL: Summary of Side Drain & Mitered End Sections
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 270
**Specifications** Section 430
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-200-ABB** **FLARED END SECTION** **EA**

A =
Blank (Concrete)

BB = Standard Pipe Sizes
21 (12")
23 (15")
25 (18")
27 (21")
29 (24")

31 (27")
33 (30")
34
38 (36")
40 (42")
41 (48")
42 (54")
43 (60")
44 (66")
45 (72")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430200 21 | FLARED END SECTION, CONCRETE, 12" | EA | | 1/1/2010 | |
| 0430200 23 | FLARED END SECTION, CONCRETE, 15" | EA | | 1/1/2010 | |
| 0430200 25 | FLARED END SECTION, CONCRETE, 18" | EA | | 1/1/2010 | |
| 0430200 29 | FLARED END SECTION, CONCRETE, 24" | EA | | 1/1/2010 | |
| 0430200 33 | FLARED END SECTION, CONCRETE, 30" | EA | | 1/1/2010 | |
| 0430200 38 | FLARED END SECTION, CONCRETE, 36" | EA | | 1/1/2010 | |
| 0430200 40 | FLARED END SECTION, CONCRETE, 42" | EA | | 1/1/2010 | |
| 0430200 41 | FLARED END SECTION, CONCRETE, 48" | EA | | 1/1/2010 | |
| 0430200 42 | FLARED END SECTION, CONCRETE, 54" | EA | | 1/1/2010 | |
| 0430200 43 | FLARED END SECTION, CONCRETE, 60" | EA | | 1/1/2010 | |
| 0430200 44 | FLARED END SECTION, CONCRETE, 66" | EA | | 1/1/2010 | |
| 0430200 45 | FLARED END SECTION, CONCRETE, 72" | EA | | 1/1/2010 | |

## 430-6AB-CDD U-ENDWALL

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Refer to Standard Index 260 or 261 for proper selection. to be used only in the clear zone for the drainage of medians and other areas having low design velocities. Precasting or cast-in-place will be permitted. Cost of this item shall include concrete, reinforcing steel, grate and all accessories.

For items included on Index 250, payment will be made under concrete and steel items. Refer to Design Standards.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBSDMES or SBSDMESFL: Summary of Side Drain & Mitered End Sections

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other Standards** Index No. 260, 261

**Specifications** Section 430

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-6AB-CDD** **U-ENDWALL** **EA**

A =Index No.
0 (Std 260) when A =0, BC =21
1 (Std 261)

B = Appurtenance
0 (none)
1 (baffles)
2 (grate)
3 (baffles and grate)

C = slope
0 (1:6)
1 (1:4)
2 (1:3)
3 (1:2)

DD = Standard Pipe Sizes
23 (15")
25 (18")
29 (24")
33 (30")

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430600025 | U-ENDWALL, STD 260, 1:6 SLOPE, 18"PIPE | EA | | 1/1/2010 | |
| 0430600125 | U-ENDWALL, STD 260, 1:4 SLOPE, 18"PIPE | EA | | 1/1/2010 | |
| 0430602123 | U-ENDWALL, WITH GRATE,STD INDEX 260, 1:4 SLOPE, 15" | EA | | 1/1/2010 | |
| 0430602125 | U-ENDWALL, WITH GRATE,STD 260, 1:4 SLOPE, 18" | EA | | 1/1/2010 | |
| 0430602129 | U-ENDWALL, WITH GRATE,STD 260, 1:4 SLOPE, 24" | EA | | 1/1/2010 | |
| 0430602133 | U-ENDWALL, WITH GRATE,STD INDEX 260, 1:4 SLOPE, 30" | EA | | 1/1/2010 | |
| 0430610025 | U-ENDWALL, STD 261, 1:6 SLOPE, 18"PIPE | EA | | 1/1/2010 | |
| 0430610029 | U-ENDWALL, STD 261, 1:6 SLOPE, 24"PIPE | EA | | 1/1/2010 | |
| 0430610123 | U-ENDWALL, STD 261, 1:4 SLOPE, 15"PIPE | EA | | 1/1/2010 | |
| 0430610125 | U-ENDWALL, STD 261, 1:4 SLOPE, 18"PIPE | EA | | 1/1/2010 | |
| 0430610129 | U-ENDWALL, STD 261, 1:4 SLOPE, 24"PIPE | EA | | 1/1/2010 | |
| 0430610133 | U-ENDWALL, STD 261, 1:4 SLOPE, 30"PIPE | EA | | 1/1/2010 | |
| 0430610223 | U-ENDWALL, STD 261, 1:3 SLOPE, 15"PIPE | EA | | 1/1/2010 | |
| 0430610225 | U-ENDWALL, STD 261, 1:3 SLOPE, 18"PIPE | EA | | 1/1/2010 | |
| 0430610229 | U-ENDWALL, STD 261, 1:3 SLOPE, 24"PIPE | EA | | 1/1/2010 | |

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|---|---|---|---|
| 0430610233 | U-ENDWALL, STD 261, 1:3 SLOPE, 30"PIPE | EA | 1/1/2010 |
| 0430610323 | U-ENDWALL, STD 261, 1:2 SLOPE, 15"PIPE | EA | 1/1/2010 |
| 0430610325 | U-ENDWALL, STD 261, 1:2 SLOPE, 18"PIPE | EA | 1/1/2010 |
| 0430610329 | U-ENDWALL, STD 261,1:2 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430611025 | U-ENDWALL, STD 261, BAFFLES, 1:6 SLOPE, 18"PIPE | EA | 1/1/2010 |
| 0430611029 | U-ENDWALL, STD 261, BAFFLES, 1:6 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430611033 | U-ENDWALL, STD 261, BAFFLES, 1:6 SLOPE, 30"PIPE | EA | 1/1/2010 |
| 0430611123 | U-ENDWALL WITH BAFFLES, STD 261, 1:4 SLOPE, 15"PIPE | EA | 1/1/2010 |
| 0430611125 | U-ENDWALL WITH BAFFLES, STD 261, 1:4 SLOPE, 18"PIPE | EA | 1/1/2010 |
| 0430611129 | U-ENDWALL WITH BAFFLES, STD 261, 1:4 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430611133 | U-ENDWALL WITH BAFFLES,STD 261,1:4 SLOPE,30"PIPE | EA | 1/1/2010 |
| 0430611223 | U-ENDWALL WITH BAFFLES, STD 261, 1:3 SLOPE, 15"PIPE | EA | 1/1/2010 |
| 0430611225 | U-ENDWALL WITH BAFFLES, STD 261, 1:3 SLOPE, 18"PIPE | EA | 1/1/2010 |
| 0430611229 | U-ENDWALL WITH BAFFLES, STD 261, 1:3 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430611233 | U-ENDWALL, STD 261, BAFFLES, 1:3 SLOPE, 30"PIPE | EA | 1/1/2010 |
| 0430611323 | U-ENDWALL WITH BAFFLES, STD 261, 1:2 SLOPE, 15"PIPE | EA | 1/1/2010 |
| 0430611325 | U-ENDWALL WITH BAFFLES, STD 261, 1:2 SLOPE, 18"PIPE | EA | 1/1/2010 |
| 0430611329 | U-ENDWALL WITH BAFFLES, STD 261, 1:2 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430611333 | U-ENDWALL, BAFFLES, STD 261, 1:2 SLOPE, 30"PIPE | EA | 1/1/2010 |
| 0430612023 | U-ENDWALL WITH GRATE, STD 261, 1:4 SLOPE, 18" | EA | 1/1/2010 |
| 0430612025 | U-ENDWALL WITH GRATE, STD 261, 1:6 SLOPE, 18"PIPE | EA | 1/1/2010 |
| 0430612029 | U-ENDWALL WITH GRATE, STD 261, 1:6 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430612033 | U-ENDWALL WITH GRATE, STD 261, 1:6 SLOPE, 30" | EA | 1/1/2010 |
| 0430612125 | U-ENDWALL WITH GRATE, STD 261, 1:4 SLOPE, 18"PIPE | EA | 1/1/2010 |
| 0430612129 | U-ENDWALL WITH GRATE, STD 261, 1:4 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430612133 | U-ENDWALL, GRATE, STD 261, 1:4 SLOPE, 30" PIPE | EA | 1/1/2010 |

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|---|---|---|---|
| 0430612329 | U-ENDWALL WITH GRATE, STD 261, 1:2 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430612333 | U-ENDWALL, GRATE, STD 261, 1:2 SLOPE, 30" PIPE | EA | 1/1/2010 |
| 0430613025 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:6 SLOPE, 18" | EA | 1/1/2010 |
| 0430613029 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:6 SLOPE, 24"PIPE | EA | 1/1/2010 |
| 0430613033 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:6 SLOPE, 30" | EA | 1/1/2010 |
| 0430613123 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:4 SLOPE,15"PIPE | EA | 1/1/2010 |
| 0430613125 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:4 SLOPE,18"PIPE | EA | 1/1/2010 |
| 0430613133 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:4 SLOPE,30"PIPE | EA | 1/1/2010 |
| 0430613225 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:3 SLOPE,18"PIPE | EA | 1/1/2010 |
| 0430613233 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:3 SLOPE,30"PIPE | EA | 1/1/2010 |
| 0430613325 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:2 SLOPE,18"PIPE | EA | 1/1/2010 |
| 0430613333 | U-ENDWALL, WITH BAFFLES & GRATE, STD 261,1:2 SLOPE,30"PIPE | EA | 1/1/2010 |

## 430-72A-BCC PIPE, SLOTTED OR PERFORATED CULVERT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes** **Valid through 12-31-10. 443 specification and Index 285 changes are effective 1/2011. Use 443-70 item for French Drain, LF.**

**Details** to be used for French Drain applications only. Refer to Design Standards. Show size, class/gage and material on the contract plans. Payment is based on equivalent round pipe size.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 205, 285

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-72A-BCC** **PIPE, SLOTTED OR PERFORATED CULVERT** **LF**

A =
1 (Storm Sewer) French Drain ONLY

B = Material
4 (Optional)

CC = Standard Pipe Sizes
23 (15")
25 (18")
27 (21")
29 (24")
31 (27")
33 (30")
38 (36")
40 (42")
41 (48")
42 (54")
43 (60")
44 (66")
45 (72")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430721423 | PIPE SLOTTED OR PERFORATED CULV, OPTIONAL, 15" SS | LF | T | 1/1/2010 | 12/31/2010 |
| 0430721425 | PIPE SLOTTED OR PERFORATED CULV, OPTIONAL, 18" SS | LF | T | 1/1/2010 | 12/31/2010 |
| 0430721429 | PIPE SLOTTED OR PERFORATED CULV, OPTIONAL, 24" SS | LF | T | 1/1/2010 | 12/31/2010 |
| 0430721433 | PIPE SLOTTED OR PERFORATED CULV, OPTIONAL, 30" SS | LF | T | 1/1/2010 | 12/31/2010 |
| 0430721438 | PIPE SLOTTED OR PERFORATED CULV, OPTIONAL, 36" SS | LF | T | 1/1/2010 | 12/31/2010 |
| 0430721443 | PIPE SLOTTED OR PERFORATED CULV, OPTIONAL, 60" SS | LF | | 1/1/2010 | 12/31/2010 |

**430-82A- BB** **CLEANING & SEALING EXISTING PIPE JOINT**

**Unit** EA **Accuracy** Each **PlanQuantity?** yes

**Notes**

**Details**

For cleaning and sealing existing joints only.

Coordinate use of this item w/ State Drainage Office to evaluate the condition of the existing pipe. Replacement of the pipe (paid under optional pipe) should be considered.

Tech Specs should detail the work to be completed, the sealing materials, and any testing that may be required.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed

for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | dromrd: Drainage Optional Materials Tabulation<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**T: Plan Details and/or Technical Specifications required**<br>**Prep & Doc Manual Chapter(s)** 6, 7, 13 | |

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-82A- BB** **CLEANING & SEALING EXISTING PIPE JOINT** **EA**

A =
1 (Storm Sewer)
2 (Cross Drain)

BB = Standard Pipe Sizes
23 (15")
25 (18")
27 (21")
29 (24")
31 (27")
33 (30")
34
38 (36")
40 (42")
41 (48")
42 (54")
43 (60")
61 (61" and greater)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430821 33 | CLEANING & SEALING EXISTING PIPE JOINT, 30" STORM SEWER | EA | T | 1/1/2010 | |
| 0430822 29 | CLEANING & SEALING EXISTING PIPE JOINT, 24" CD | EA | T | 1/1/2010 | |
| 0430822 33 | CLEANING & SEALING EXISTING PIPE JOINT, 30" CD | EA | T | 1/1/2010 | |
| 0430822 38 | CLEANING & SEALING EXISTING PIPE JOINT, 36" CD | EA | T | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0430822 42 | CLEANING & SEALING EXISTING PIPE JOINT, 54" CD | EA | T | 1/1/2010 |
| 0430822 43 | CLEANING & SEALING EXISTING PIPE JOINT, 60" CD | EA | T | 1/1/2010 |

## 430-830- PIPE FILLING AND PLUGGING- PLACE OUT OF SERVICE

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

to be used only for filling/plugging existing drainage culverts, where called for in the plans. Per the specifications, "The cost of filling and plugging pipe shown in the plans as existing, to be placed out of service"
NOTE: "The cost of plugging pipe, shown in the plans as proposed new pipe, will be included in the contract unit price for pipe culvert." (Do not use this pay item for temporarily plugging new pipe.)

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 280

**Specifications**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-830-** **PIPE FILLING AND PLUGGING- PLACE OUT OF SERVICE** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430830 | PIPE FILLING AND PLUGGING- PLACE OUT OF SERVICE | CY | | 1/1/2010 | |

## 430-860- A STORM SEWER TRENCH

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-860- A** **STORM SEWER TRENCH** **LF**

A =
2 (2' Wide)
3 (3' Wide)
4 (4' Wide)
5 (5' Wide)
6 (6' Wide)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 430-880- AA FLAP GATES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Refer to Drainage Manual for additional information.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumdrd.dgn: Summary of Drainage Structures

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-880- AA** **FLAP GATES** **EA**

AA= Standard Pipe Sizes (effective 1/1/2007)
01 (0 to 24")
02 (25 to 36")
03 (37 to 48")
04 (49 to 60")
05 (61" or greater)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430880 01 | FLAP GATES, 0-24" | EA | T | 1/1/2010 | |
| 0430880 02 | FLAP GATES, 25-36" | EA | T | 1/1/2010 | |
| 0430880 03 | FLAP GATES, 37-48" | EA | T | 1/1/2010 | |
| 0430880 04 | FLAP GATES, 49-60" | EA | T | 1/1/2010 | |

## 430-950- DESILTING CONCRETE BOX CULVERT

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes**

**Details** Payment is for the VOLUME OF SILT removed, based on the length and width of the box culvert, and the average DEPTH OF SILT to be removed.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
dromrd: Drainage Optional Materials Tabulation
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
700-050-54: Daily Report or Truck-Measured Material Site Source Record (and Sketch)
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 430
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-950-** **DESILTING CONCRETE BOX CULVERT** **CY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430950 | DESILTING CONCRETE BOX CULVERT, | CY | | 1/1/2010 | |

## 430-963- AA PVC PIPE FOR BACK OF SIDEWALK DRAINAGE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** For use according to Design Standard for back of sidewalk applications. Index calls for 4" PVC. Non-standard diameters must be shown with plan details and material requirements.

For all other applications, including gutter drain, use Optional Pipe.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 282

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-963- AA** **PVC PIPE FOR BACK OF SIDEWALK DRAINAGE** **LF**

A= Size
1 (4" diameter) Standard
2 (Non-Standard diameter)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430963 1 | PVC PIPE FOR BACK OF SIDEWALK, 4" | LF | | 1/1/2010 | |
| 0430963 2 | PVC PIPE FOR BACK OF SIDEWALK, NON STANDARD DIAMETER | LF | T | 1/1/2010 | |

## 430-970- PROTECTIVE PIPE BEDDING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Pipe bedding is incidental to cost of pipe for most applications. If a special bedding is

needed, contact the State Drainage Office prior to requesting this item.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
dromrd: Drainage Optional Materials Tabulation
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-970-** **PROTECTIVE PIPE BEDDING** **LF**

**Notes** Contact the State Drainage Office prior to opening.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 430-98A-BCC MITERED END SECTION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**
Includes all pipe, grates (when required), fasteners, reinforcement, connectors, anchors, concrete, sealants, jackets, coupling bands, and all work required to install the mitered end section. Show shape and size on the contract plans. Refer to Index 273 for valid sizes. Use equivalent round pipe size for payment.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBSDMES or SBSDMESFL: Summary of Side Drain & Mitered End Sections
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**
**PPM Chapter**
**Trns·port**

**Other Standards** Index No. 205, 272, 273

**Specifications** Section 430

**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-98A-BCC** **MITERED END SECTION** **EA**

A = Application
2 (Cross Drain)
4 (Side Drain)

B = Shape
1 (Optional Round)
6 (Optional Other – Elliptical/Arch)

CC = Standard Round or Equivalent Other Shape Pipe Sizes
Standard Pipe Sizes
21 (12")
23 (15")
25 (18")
27 (21")
29 (24")
31 (27")
33 (30")
34
38 (36")
40 (42")
41 (48")
42 (54")
43 (60")
44 (66")
45 (72")
46 (78")
47 (84")
48 (90")
49 (96")
50 (102")
51 (108")
52 (120")
53 (132")
54 (144")
55 (156")
56 (168")
57 (180")
Refer to Standard Index 205

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430982121 | MITERED END SECTION, OPTIONAL ROUND, 12" CD | EA | | 1/1/2010 | |
| 0430982123 | MITERED END SECTION, OPTIONAL ROUND, 15" CD | EA | | 1/1/2010 | |
| 0430982125 | MITERED END SECTION, OPTIONAL ROUND, 18" CD | EA | | 1/1/2010 | |
| 0430982129 | MITERED END SECTION, OPTIONAL ROUND, 24" CD | EA | | 1/1/2010 | |
| 0430982133 | MITERED END SECTION, OPTIONAL ROUND, 30" CD | EA | | 1/1/2010 | |
| 0430982138 | MITERED END SECTION, OPTIONAL ROUND, 36" CD | EA | | 1/1/2010 | |
| 0430982140 | MITERED END SECTION, OPTIONAL ROUND, 42" CD | EA | | 1/1/2010 | |
| 0430982141 | MITERED END SECTION, OPTIONAL ROUND, 48" CD | EA | | 1/1/2010 | |
| 0430982142 | MITERED END SECTION, OPTIONAL ROUND, 54" CD | EA | | 1/1/2010 | |
| 0430982143 | MITERED END SECTION, OPTIONAL ROUND, 60" CD | EA | | 1/1/2010 | |
| 0430982144 | MITERED END SECTION, OPTIONAL ROUND, 66" CD | EA | | 1/1/2010 | |
| 0430982145 | MITERED END SECTION, OPTIONAL ROUND, 72" CD | EA | | 1/1/2010 | |
| 0430982147 | MITERED END SECTION, OPTIONAL ROUND, 84" CD | EA | | 1/1/2010 | |
| 0430982623 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 15" CD | EA | | 1/1/2010 | |
| 0430982625 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 18" CD | EA | | 1/1/2010 | |
| 0430982629 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 24" CD | EA | | 1/1/2010 | |
| 0430982633 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 30" CD | EA | | 1/1/2010 | |
| 0430982638 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 36" CD | EA | | 1/1/2010 | |
| 0430982640 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 42" CD | EA | | 1/1/2010 | |
| 0430982641 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 48" CD | EA | | 1/1/2010 | |
| 0430982642 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 54" CD | EA | | 1/1/2010 | |
| 0430982643 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 60" CD | EA | | 1/1/2010 | |
| 0430982645 | MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 72" CD | EA | | 1/1/2010 | |
| 0430984121 | MITERED END SECTION, OPTIONAL ROUND, 12" SD | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0430984123 | MITERED END SECTION, OPTIONAL ROUND, 15" SD | EA | 1/1/2010 |
| 0430984125 | MITERED END SECTION, OPTIONAL ROUND, 18" SD | EA | 1/1/2010 |
| 0430984129 | MITERED END SECTION, OPTIONAL ROUND, 24" SD | EA | 1/1/2010 |
| 0430984133 | MITERED END SECTION , OPTIONAL ROUND, 30" SD | EA | 1/1/2010 |
| 0430984138 | MITERED END SECTION , OPTIONAL ROUND, 36" SIDE DRAIN | EA | 1/1/2010 |
| 0430984140 | MITERED END SECTION , OPTIONAL ROUND, 42" SD | EA | 1/1/2010 |
| 0430984141 | MITERED END SECTION , OPTIONAL ROUND, 48" SD | EA | 1/1/2010 |
| 0430984142 | MITERED END SECTION , OPTIONAL ROUND, 54" SD | EA | 1/1/2010 |
| 0430984143 | MITERED END SECTION , OPTIONAL ROUND, 60" SD | EA | 1/1/2010 |
| 0430984144 | MITERED END SECTION, OPTIONAL ROUND, 66" SIDE DRAIN | EA | 1/1/2010 |
| 0430984147 | MITERED END SECTION, OPTIONAL ROUND, 84" SD | EA | 1/1/2010 |
| 0430984623 | MITERED END SECTION, OPTIONAL OTHER - ELLIP/ARCH, 15" SD | EA | 1/1/2010 |
| 0430984625 | MITERED END SECT, OPTIONAL - ELLIPTICAL / ARCH, 18" SD | EA | 1/1/2010 |
| 0430984629 | MITERED END SECT, OPTIONAL - ELLIPTICAL / ARCH, 24" SD | EA | 1/1/2010 |
| 0430984633 | MITERED END SECT, OPTIONAL /ELLIP/ARCH, 30" SD | EA | 1/1/2010 |
| 0430984638 | MITERED END SECT, OPTIONAL /ELLIP/ARCH, 36" SD | EA | 1/1/2010 |
| 0430984640 | MITERED END SECT, OPTIONAL /ELLIP/ARCH, 42" SD | EA | 1/1/2010 |
| 0430984641 | MITERED END SECT, OPTIONAL /ELLIP/ARCH, 48" SD | EA | 1/1/2010 |
| 0430984642 | MITERED END SECT, OPTIONAL /ELLIP/ARCH, 54" SD | EA | 1/1/2010 |
| 0430984643 | MITERED END SECTION, OPTIONAL SHAPE /ELLIP/ARCH, 60" SIDE DRAIN | EA | 1/1/2010 |
| 0430984644 | MITERED END SECT, OPTIONAL /ELLIP/ARCH, 66" SD | EA | 1/1/2010 |
| 0430984645 | MITERED END SECT, OPTIONAL /ELLIP/ARCH, 72" SD | EA | 1/1/2010 |

**430-990-** **MITERED END SECTION, REPLACE GRATE**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For replacement of grate on an existing MES. DO NOT USE this item for a new MES.

Installation should be in accordance with design standards, unless otherwise shown in the plans.

Payment is per MES, for replacement of complete set (all bars).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBSDMES or SBSDMESFL: Summary of Side Drain & Mitered End Sections

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **430-990-** **MITERED END SECTION, REPLACE GRATE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0430990 | MITERED END SECT, REPLACE GRATE | EA | | 1/1/2010 | |

## 431- 1- A PIPE LINER, OPTIONAL MATERIAL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This item is used to rehabilitate an existing pipe by forming a lining on the host pipe's interior, thereby allowing a debilitated pipe to regain strength and performance capabilities. Box to Box liners are preferred.

Contact the State Drainage Office if sectional liners are considered (see item 908-431-A)

Design with manufacturer's lengths in mind for all practical applications. Refer to specifications for current industry practices.

Per Specifications, "The plans will indicate the location of the pipe to be rehabilitated, the material composition and the alternate liner types that may be used to rehabilitate the pipe, and the method of liner installation."

**Related Items** **Required** **Recommended** 121- 70, 430- 94-AA

**Design Forms and Documentation**

dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 431

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 431- 1- A** **PIPE LINER, OPTIONAL MATERIAL** **LF**

A= Size Range
1 (0=-24")
2 (25-36")
3 (37-48")
4 (49-60")
5 (61" and greater)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0431 1 1 | PIPE LINER, OPTIONAL MATERIAL, 0-24" | LF | T | 1/1/2010 | |
| 0431 1 2 | PIPE LINER, OPTIONAL MATERIAL, 25-36" | LF | T | 1/1/2010 | |
| 0431 1 3 | PIPE LINER, OPTIONAL MATERIAL, 37-48" | LF | T | 1/1/2010 | |
| 0431 1 4 | PIPE LINER, OPTIONAL MATERIAL, 49 - 60" | LF | T | 1/1/2010 | |
| 0431 1 5 | PIPE LINER, OPTIONAL MATERIAL, 61" AND GREATER | LF | T | 1/1/2010 | |

## 432- 3- A CHEMICAL GROUT REPAIR - PIPE, NON-TEST

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **432- 3- A** **CHEMICAL GROUT REPAIR - PIPE, NON-TEST** **EA**

A =
1 (15")
2 (18")
3 (21")
4 (24")
5 (30")
6 (36")
7 (42")
8 (48")
9 (54")
10 (66")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0432 3 1 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 15" | EA | T | 1/1/2010 | |
| 0432 3 2 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 18" | EA | T | 1/1/2010 | |
| 0432 3 3 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 21" | EA | T | 1/1/2010 | |
| 0432 3 4 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 24" | EA | T | 1/1/2010 | |
| 0432 3 5 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 30" | EA | T | 1/1/2010 | |
| 0432 3 6 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 36" | EA | T | 1/1/2010 | |
| 0432 3 7 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 42" | EA | T | 1/1/2010 | |
| 0432 3 8 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 48" | EA | T | 1/1/2010 | |
| 0432 3 9 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 54" | EA | T | 1/1/2010 | |
| 0432 3 10 | CHEMICAL GROUT REPAIR, PIPE, NON-TEST, 66" | EA | T | 1/1/2010 | |

**433- 1-** **CHEMICAL GROUT REPAIR- MANHOLE/INLET**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **433- 1-** **CHEMICAL GROUT REPAIR- MANHOLE/INLET** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0433 1 | CHEMICAL GROUT REPAIR, MANHOLE / INLET | EA | T | 1/1/2010 | |

## 435- 1- AA STRUCTURAL PLATE PIPE CULVERT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Coordinate the use of this item with the State Drainage Office prior to requesting pay items.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 435
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **435- 1- AA** **STRUCTURAL PLATE PIPE CULVERT** **LF**

AA= Blank for drainage applications
99 (Animal Crossing)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0435 1 | STRUCTURAL PLATE PIPE CULVERT | LF | | 1/1/2010 | |
| 0435 1 99 | STRUCTURAL PLATE PIPE CULVERT SPECIAL- ANIMAL CROSSING | LF | T | 1/1/2010 | |

## 436- 1- A TRENCH DRAIN

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Use in accordance with Index 206. Various alternatives are available on the standard.

Special should only be used if you have a significant design change. Plan Details and/or Tech Spec will be required.

Minor changes to the standard may be noted in the plans, and used with the "standard" pay item.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBEdgeDrains: Summary of Edge Drains
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 206
**Specifications** Section 436

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **436- 1- A** **TRENCH DRAIN** **LF**

A = size
1 (Standard)
2 (Special) see details above

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0436 1 1 | TRENCH DRAIN, STANDARD | LF | | 1/1/2010 | |
| 0436 1 2 | TRENCH DRAIN, SPECIAL | LF | T | 1/1/2010 | |

## 440- 1- AA UNDERDRAIN

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Item based on the size of the smooth interior product. Price per length shall include cost of pipe, fittings, aggregate, sock, filter fabric, cleanouts, and concrete aprons.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBUnderdrain: Summary Box: Underdrains
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 286
**Specifications** Section 440
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **440- 1- AA** **UNDERDRAIN** **LF**

AA =
10 (Type I)
20 (Type II)
30 (Type III)
50 (Type V)
60 (Type Special)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0440 1 10 | UNDERDRAIN, TYPE I | LF | | 1/1/2010 | |
| 0440 1 20 | UNDERDRAIN, TYPE II | LF | | 1/1/2010 | |
| 0440 1 30 | UNDERDRAIN, TYPE III | LF | | 1/1/2010 | |
| 0440 1 50 | UNDERDRAIN, TYPE V | LF | | 1/1/2010 | |
| 0440 1 60 | UNDERDRAIN, TYPE SPECIAL | LF | T | 1/1/2010 | |

## 440- 70- UNDERDRAIN INSPECTION BOX

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBUnderdrain: Summary Box: Underdrains
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 245, 286
**Specifications** Section 440
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **440- 70-** **UNDERDRAIN INSPECTION BOX** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0440 70 | UNDERDRAIN INSPECTION BOX | EA | | 1/1/2010 | |

## 440- 73- A UNDERDRAIN OUTLET PIPE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**
Use in accordance with Standard Index. Price per length includes trench excavation, pipe, fittings, concrete aprons, hardware cloth for concrete aprons, stubbing into drainage structures, backfill in place, and removal of excess materials.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBUnderdrain: Summary Box: Underdrains

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 286

**Specifications** Section 440

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 440- 73- A UNDERDRAIN OUTLET PIPE LF**

A = Size
1 ( 4")
2 ( 6")
3 ( 8")
4 (10")
5 (12") Note: 12" is non-standard; will require plan details and/or Tech Spec

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0440 73 1 | UNDERDRAIN OUTLET PIPE, 4" | LF | | 1/1/2010 | |
| 0440 73 2 | UNDERDRAIN OUTLET PIPE, 6" | LF | | 1/1/2010 | |
| 0440 73 3 | UNDERDRAIN OUTLET PIPE, 8" | LF | | 1/1/2010 | |
| 0440 73 4 | UNDERDRAIN OUTLET PIPE, 10" | LF | | 1/1/2010 | |
| 0440 73 5 | UNDERDRAIN OUTLET PIPE, 12" | LF | T | 1/1/2010 | |

## 442- 70- VERTICAL DRAINAGE WICKS

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **442- 70-** **VERTICAL DRAINAGE WICKS** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0442 70 | VERTICAL DRAINAGE WICKS | LF | T | 1/1/2010 | |

## 443- 70- AA FRENCH DRAIN

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** This item includes furnishing and placing pipe, pipe plugs, pipe fittings, coarse aggregate and filter fabric, and also includes trenching, backfilling, sheeting and, when necessary, pavement restoration.

When using elliptical pipe, payment will be according to the equivalent round size, as noted in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBEdgeDrains: Summary of Edge Drains
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 285
**Specifications** Section 443
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **443- 70- AA** **FRENCH DRAIN** **LF**

AA = Size. Additional sizes per index 285
3 (18")
4 (24")

5 (30")
6 (36")
7 (42")
8 (48")

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0443 70 3 | FRENCH DRAIN, 18" | LF | | 1/1/2010 | |
| 0443 70 4 | FRENCH DRAIN, 24" | LF | | 1/1/2010 | |
| 0443 70 5 | FRENCH DRAIN, 30" | LF | | 1/1/2010 | |
| 0443 70 6 | FRENCH DRAIN, 36" | LF | | 1/1/2010 | |
| 0443 70 7 | FRENCH DRAIN, 42" | LF | | 1/1/2010 | |
| 0443 70 8 | FRENCH DRAIN, 48" | LF | | 1/1/2010 | |

## 443- 71- A BALLAST ROCK

**Unit** CY; M3 **Accuracy** Cubic Yard; Cubic Meter **PlanQuantity?** no

**Notes** **Valid through 12-31-10. Effective 1/2011, use 443-70 item. Refer to 443 specification and Index 285 updates.**

**Details** Do not use this item with 443-70 French Drain item; refer to Index 285 for details

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-04: Volume Measure Items and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

700-050-54: Daily Report or Truck-Measured Material Site Source Record (and Sketch)

Measure inside the truck bed; calculate the volume by multiplying those three dimensions. Subtract 2% to account for the hoist box and bed fillets. Record all field records on site source record form and transfer final quantity to computation book.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 285

**Specifications** Section 443

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **443- 71- A** **BALLAST ROCK** **CY**

A =
1 (French Drain Aggregate)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0443 71 1 | BALLAST ROCK, FRENCH DRAIN AGGREGATE | CY | | 1/1/2010 | 12/31/2010 |

## 444- 70- AA DEEP WELL- OPEN HOLE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This item is to be used in accordance with Index 288 for drainage applications.

For irrigation wells, see pay item 730-83.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 288

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **444- 70- AA** **DEEP WELL- OPEN HOLE** **LF**

AA = Well Diameter
11 (24")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0444 70 11 | DEEP WELL- OPEN HOLE, 24" | LF | T | 1/1/2010 | |

## 444- 71- AA DEEP WELL CASING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This item is to be used in accordance with Index 288 for drainage applications.

For irrigation wells, see pay item 730-83.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 288

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **444- 71- AA** **DEEP WELL CASING** **LF**

AA = Well Diameter
11 (24")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0444 71 11 | DEEP WELL CASING, 24" | LF | T | 1/1/2010 | |

## 444- 72- AA DEEP WELL CLEANING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This item is to be used in accordance with Index 288 for drainage applications.

For irrigation wells, see pay item 730-83.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 288

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **444- 72- AA** **DEEP WELL CLEANING** **LF**

AA = Well Diameter
11 (24")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0444 72 11 | DEEP WELL CLEANING, 24" | LF | T | 1/1/2010 | |

## 446- 1- A EDGEDRAIN DRAINCRETE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Price per length includes removal of existing shoulder pavement, trench excavation, disposal of excess materials, filter fabric, draincrete, edgedrain pipe and fittings. Refer to Design Standard for payment details, based on new/rehab construction.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBEdgeDrains: Summary of Edge Drains

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 286, 287

**Specifications** Section 446

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **446- 1- A** **EDGEDRAIN DRAINCRETE** **LF**

A= pipe size
1 (Standard) per Index 287 is 4"

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0446 1 1 | EDGEDRAIN DRAINCRETE, STANDARD | LF | | 1/1/2010 | |

## 446- 71- A EDGEDRAIN OUTLET PIPE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Includes removal of existing shoulder pavement, trench excavation, pipe and fitting, concrete apron, sod, stubbing into existing inlets and paved ditches, etc. Refer to Design Standard for details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBEdgeDrains: Summary of Edge Drains
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 287
**Specifications** Section 446
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **446- 71- A** **EDGEDRAIN OUTLET PIPE** **LF**

A= pipe size
1 (4")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0446 71 1 | EDGEDRAIN OUTLET PIPE, 4" | LF | | 1/1/2010 | |

## 448- 73- PUMPING STATION

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqrd: Roadway Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **448- 73-** **PUMPING STATION** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0448 73 | PUMPING STATION | LS | T | 1/1/2010 | |

## 450- 1-AAA PRESTRESSED BEAMS

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Intended for prestressed beams for bridge construction.
Summarize quantities by location per span.
AAA= 201, 202, 203 are typically used for bridge widening projects. These are non-standard and will require project specific design. Designers must work with the District and/or State Structures Office when using these items.
AAA=278, 378 are typically used for post-tensioned beams. These are non-standard and will require project specific design. Designers must work with the District and/or State Structures Office when using these items.

Non-Standard beam types: Coordinate standards (as applicable / if available), with details shown in the plans.

Florida-I Beams: See pay item 450- 2-. Pay items will be effective with implementation of Design Standards. For earlier implementation, contact the State Structures Design Office.

Full design details will be required in the plans.

Other beam types: Pay Items for other beam types may be expanded upon request. Minor "non-standard" changes may be paid under the applicable beam type, with applicable details in the plans or specifications.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 20110 series: 20110, 20120, 20130, 20140, 20150, 20160, 20172, 20178, 20199, 20310, 20320.

**Specifications** Section 450

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 450- 1-AAA PRESTRESSED BEAMS LF**

AAA = Type
1 (Type II)
2 (Type III)
3 (Type IV)
4 (Type V)
5 (Type VI)
7 (Special) see pay item details
54 (Bulb T, 54") *non-standard
63 (Bulb T, 63") *non-standard
72 (Bulb T, 72")
78 (Bulb T, 78")
118 (Florida Double Tee, Fdt18) *non-standard
124 (Florida Double Tee, Fdt24) *non-standard
130 (Florida Double Tee, Fdt30) *non-standard
201 (Type II Modified) *non-standard
202 (Type III Modified) *non-standard
203 (Type IV Modified) *non-standard
250 (Inverted T, 20”)
278 (Bulb T, 78", Modified, w/post tensioning) *non-standard
378 (Bulb T, 78", Haunched, Modified, w/post tensioning) *non-standard

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 1 1 | PRESTRESSED BEAMS, TYPE II | LF | | 1/1/2010 | |
| 0450 1 2 | PRESTRESSED BEAMS, TYPE III | LF | | 1/1/2010 | |
| 0450 1 3 | PRESTRESSED BEAMS, TYPE IV | LF | | 1/1/2010 | |
| 0450 1 4 | PRESTRESSED BEAMS, TYPE V | LF | | 1/1/2010 | |
| 0450 1 5 | PRESTRESSED BEAMS, TYPE VI | LF | | 1/1/2010 | |
| 0450 1 7 | PREST BEAMS, SPECIAL TYPE | LF | T | 1/1/2010 | |
| 0450 1 72 | PRESTRESSED BEAMS, BULB T - 72" | LF | | 1/1/2010 | |
| 0450 1 78 | PRESTRESSED BEAMS, BULB T - 78" | LF | | 1/1/2010 | |
| 0450 1201 | PREST BEAMS, TYPE II, MODIFIED | LF | | 1/1/2010 | |
| 0450 1202 | PREST BEAMS, TYPE III, MODIFIED | LF | | 1/1/2010 | |
| 0450 1203 | PRESTRESSED BEAMS, TYPE IV MODIFIED | LF | | 1/1/2010 | |
| 0450 1250 | PRESTRESSED BEAMS, INVERTED T 20" | LF | | 1/1/2010 | |

## 450- 2-AAA PRESTRESSED BEAMS: FLORIDA-I BEAM

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**June 2009: Refer to Temporary Design Bulletin on Structures Office Web Page for implementation instructions.**

**Details**

Intended for prestressed beams for bridge construction.
Summarize quantities by location per span.

Non-Standard beam types: Coordinate standards (as applicable / if available), with details shown in the plans.

Florida-I Beams: Pay items will be effective with implementation of Design Standards. For earlier implementation, contact the State Structures Design Office. Full design details will be required in the plans.

Other beam types: Pay Items for other beam types may be expanded upon request. Minor "non-standard" changes may be paid under the applicable beam type, with applicable details in the plans or specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Florida-I Series: 20010, 20036, 20045, 20054, 20063, 20072, 20078, 20199
Index No. 20110 series: 20110, 20120, 20130, 20140, 20150, 20160, 20172, 20178, 20199, , and 20310, 20320.

Bearing Pads & Plates for Florida-I: Index No. 20510, 20511

**Specifications** Section 450

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **450- 2-AAA** **PRESTRESSED BEAMS: FLORIDA-I BEAM** **LF**

AAA = Size
36 (36")
45 (45")
54 (54")
63 (63")
72 (72")
78 (78")
84 (84")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 2 36 | PREST BEAMS: FLORIDA-I BEAM 36" | LF | | 1/1/2010 | |
| 0450 2 45 | PREST BEAMS: FLORIDA-I BEAM 45" | LF | | 1/1/2010 | |
| 0450 2 54 | PREST BEAMS: FLORIDA-I BEAM 54" | LF | | 1/1/2010 | |
| 0450 2 63 | PREST BEAMS: FLORIDA-I BEAM 63" | LF | | 1/1/2010 | |
| 0450 2 72 | PREST BEAMS: FLORIDA-I BEAM 72" | LF | | 1/1/2010 | |
| 0450 2 78 | PREST BEAMS: FLORIDA-I BEAM 78" | LF | | 1/1/2010 | |
| 0450 2 84 | PREST BEAMS: FLORIDA-I BEAM 84" | LF | | 1/1/2010 | |
| 0450 2 96 | PREST BEAMS: FLORIDA-I BEAM 96" | LF | | 1/1/2010 | |

**450- 3- AB** **PRESTRESSED SLAB UNITS**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for non-post-tensioned prestressed bridge deck panels w/ concrete wearing surface.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification

tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 4.4, Normally requires SHOP DRAWINGS

Index 20350 series: 20350, 20353, 20354, 20355, 20363, 20364, 20365, 20399

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 450- 3- AB PRESTRESSED SLAB UNITS LF**

A = Width
1 (48")
2 (60")
3 (96")
4 (72")
5 (36") valid through 12/2008
6 (54")
7 (57")
9 (Variable 30-47") Per design standard index, B=1 or 5 only

B = Thickness
1 (12")
2 (16")
3 (10")
4 (18")
5 (15")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 3 11 | PRESTRESSED SLAB UNITS, WIDTH 48", THICKNESS 12" | LF | | 1/1/2010 | |
| 0450 3 15 | PRESTRESSED SLAB UNITS, WIDTH 48", THICKNESS 15" | LF | | 1/1/2010 | |
| 0450 3 21 | PRESTRESSED SLAB UNITS, WIDTH 60", THICKNESS 12" | LF | | 1/1/2010 | |
| 0450 3 22 | PRESTRESSED SLAB UNITS, WIDTH 60", THICKNESS 16" | LF | | 1/1/2010 | |
| 0450 3 25 | PRESTRESSED SLAB UNITS, WIDTH 60", THICKNESS 15" | LF | | 1/1/2010 | |
| 0450 3 41 | PRESTRESSED SLAB UNITS, WIDTH 72", THICKNESS 12" | LF | | 1/1/2010 | |
| 0450 3 62 | PRESTRESSED SLAB UNITS, WIDTH 54", THICKNESS 16" | LF | | 1/1/2010 | |
| 0450 3 72 | PRESTRESSED SLAB UNITS, WIDTH 57", THICKNESS 16" | LF | | 1/1/2010 | |
| 0450 3 91 | PRESTRESSED SLAB UNITS, VARIABLE WIDTH 30-47", THICKNESS 12" | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0450 3 95 | PRESTRESSED SLAB UNITS, VARIABLE WIDTH 30-47", THICKNESS 15" | LF | 1/1/2010 |

## 450- 4-AAA PRESTRESSED BEAM (FLORIDA U-BEAM)

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for prestressed Florida U-beams for bridge construction.
Summarize quantities by location per span.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 20210 series: 20210, 20484, 20254, 20263, 20272, 20299

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **450- 4-AAA** **PRESTRESSED BEAM (FLORIDA U-BEAM)** **LF**

AAA =
1 ( 48”)
2 ( 54”)
3 ( 63”)
4 ( 72”)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 4 1 | PRESTRESSED BEAM- FL U-BEAM, 48" | LF | | 1/1/2010 | |
| 0450 4 2 | PRESTRESSED BEAM- FL U-BEAM, 54" | LF | | 1/1/2010 | |
| 0450 4 3 | PRESTRESSED BEAM- FL U-BEAM, 63" | LF | | 1/1/2010 | |
| 0450 4 4 | PRESTRESSED BEAM- FL U-BEAM,72" | LF | | 1/1/2010 | |

## 450- 5- PRESTRESSED PAVEMENT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **New Item effective 1-1-10. Coordinate the use of this item with the State Structures Design Office**

**Details** This item was opened for a test section, monitored by District 5 and the State Structures Design Office. DO NOT USE THIS ITEM WITHOUT COORDINATING WITH THE STATE STRUCTURES DESIGN OFFICE.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **450- 5-** **PRESTRESSED PAVEMENT** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 5 | PRESTRESSED PAVEMENT | SY | | 1/1/2010 | |

## 450- 82- BEAM REPAIR

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Intended for rehabilitation projects to strengthen or repair existing concrete beams. Show locations in plans. Include pay item note to clarify payment for various work items.
See also item 450-83.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **450- 82-** **BEAM REPAIR** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 82 | BEAMS REPAIR | LF | T | 1/1/2010 | |

## 450- 83- A BEAM REPAIR- SPLICES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Intended for rehabilitation projects to strengthen or repair existing concrete beams. Show locations in plans. Include pay item note to clarify payment for various work items.
See also item 450-82.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **450- 83- A** **BEAM REPAIR- SPLICES** **EA**

A =
1 (Strand Splices)
2 (Bar Splices)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 83 1 | BEAM REPAIR, STRAND SPLICES | EA | T | 1/1/2010 | |
| 0450 83 2 | BEAM REPAIR, BAR SPLICES | EA | T | 1/1/2010 | |

## 450- 88- AA PRESTRESSED SLAB UNITS TRANSVERSELY POST TENSIONED

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** no

**Notes**

**Details** Intended for post-tensioned prestressed bridge deck panels w/ concrete or asphalt wearing surface.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other** SDG's 4.4, Normally requires SHOP DRAWINGS

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **450- 88- AA** **PRESTRESSED SLAB UNITS TRANSVERSELY POST TENSIONED** **SF**

AA =
12 (12")
14 (14")
15 (15")
16 (16")
18 (18")
19 (19")
20 (20")
21 (21")
24 (24")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0450 88 15 | PRESTRESSED SLAB UNITS TRANSVERSELY POST TENSIONED, 15" | SF | T | 1/1/2010 | |
| 0450 88 18 | PRESTRESSED SLAB UNITS TRANSVERSELY POST TENSIONED, 18" | SF | T | 1/1/2010 | |

## 451- 70- AA PRESTRESSED SOIL ANCHOR

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For permanent applications only. Do not pay for separately when prestressed soil anchors are part of a temporary steel sheet pile wall system. Intended for payment of prestressed soil anchor, proof and creep test. See specification 451-12. Show anchor spacing and force/anchor.
Show locations in plans w/ quantity block.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 451
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **451- 70- AA** **PRESTRESSED SOIL ANCHOR** **EA**

AA =
Blank (F&I, With Standard Tests)
1 (Performance Test)
2 (Creep Test)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0451 70 | PREST SOIL ANCHORS | EA | | 1/1/2010 | |
| 0451 70 1 | PRESTRESSED SOIL ANCHOR, PERFORMANCE TEST | EA | | 1/1/2010 | |
| 0451 70 2 | PRESTRESSED SOIL ANCHOR, CREEP TEST | EA | | 1/1/2010 | |

## 452- 70- PRECAST SEGMENT PRODUCTION

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** Intended to cover for segmental casting yard set-up costs. Required on all Precast Segmental Bridge Projects.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 452

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **452- 70-** **PRECAST SEGMENT PRODUCTION** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0452 70 | PRECAST SEGMENT PRODUCTION | LS | | 1/1/2010 | |

## 455- 2- A TREATED TIMBER PILING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Designer must verify material requirements with State Materials Lab prior to requesting item.

Intended for temporary detour bridge applications, or special use structures. Summarize quantities by location per bent. The quantity to be paid for shall be the length, in feet (meters), of piling actually remaining in the completed structure below the elevation of cut-off shown in the plans or designated by the Engineer.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-08: Piling Tabulation and Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 455

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **455- 2- A** **TREATED TIMBER PILING** **LF**

A = Treatment
Blank (Single Treatment)
1 (Dual Treatment)

**Notes** Designer must verify material requirements with State Materials Lab prior to requesting item.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 2 | TREATED TIMBER PILING | LF | T | 1/1/2010 | |

## 455- 14- AA CONCRETE SHEET PILING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Intended for concrete sheet pile walls. Show locations in plans. Include quantity block in plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-08: Piling Tabulation and Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

Through June 2011, Index 20400 series: 20400, 20410, 20412, 40230, 20440
Effective July 2011, Index 6040

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct. 455- 14- AA CONCRETE SHEET PILING LF**

A = Size
1 ( 7" X 30")
2 ( 8" X 30")
3 (10" X 30")
4 (12" X 30")
5 (Special)
6 (6" X 30")
7 (5" X 24")
8 (6" X 48")
9 (6" X 36")
10 (9" X 48")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 14 2 | CONCRETE SHEET PILING, 8"X30" | LF | | 1/1/2010 | |
| 0455 14 3 | CONCRETE SHEET PILING, 10"X30" | LF | | 1/1/2010 | |
| 0455 14 4 | CONCRETE SHEET PILING, 12"X30" | LF | | 1/1/2010 | |
| 0455 14 5 | CONCRETE SHEET PILING,SPECIAL | LF | T | 1/1/2010 | |

## 455- 18- PROTECTION OF EXISTING STRUCTURES

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

The item is to protect adjacent buildings, RR tracks, existing bridge structures, etc that may be impacted by vibration effects of the new construction.

Survey existing older bridges and monitor vibration/settlement of existing structures located within a few hundred feet of the following construction operations: pile driving, drilled shaft excavations, blasting, vibro-compaction, steel sheet pile installations, well point dewatering systems, etc. Of special concern are old bridge structures on timber piles, existing

retaining walls, existing building on shallow foundations, etc.

IN THE PLANS, list the adjacent structures not covered under 455-1.1 that require surveying and vibration monitoring, or structures that require special attention during construction.

The item is usually loaded as a structures items due to pile driving operations. However, blasting, sheet pile wall installations and super-pave vibratory compaction operations can cause vibrations sufficient to create damage to adjacent structures also.

NOTE: Protection of structures that are under construction (existing portion of a bridge during widening) is incidental to the bridge costs. No separate pay item is needed.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Soils and Foundations Handbook 7.1.6, 9.2.4

**Specifications** Section 455

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **455- 18-** **PROTECTION OF EXISTING STRUCTURES** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 18 | PROTECTION OF EXISTING STRUCTURES | LS | T | 1/1/2010 | |

## 455- 34- AA PRESTRESSED CONCRETE PILING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Effective January 2009- refer to specification changes for dynamic load tests.**

**Details** For projects let January 2009 and later: Intended to cover cost and installation of the square prestressed concrete piling.

Design quantity computed as the total anticipated length of pile WITHOUT ALLOWANCES for cutoffs, splices, dynamic load tests, or preforming. Construction Final Quantity will be adjusted based on allowances, per the specifications.
Related item 455-143, except for fender system piling, & piling for soldier pile walls.
Per specification, "No payment will be made for dynamic load tests used to evaluate the integrity of a pre-planned epoxy-bonded dowel splice. Include all costs associated with dynamically testing production piles with epoxy-bonded dowel splices in the Pay Item 455-34."

For projects let through December 2008: Intended to cover cost and installation of the square prestressed concrete piling.
Quantity computed as the total anticipated length of pile without allowances for cutoffs, splices or preforming. Related items 455-143 & 455-137, except for fender system piling, & piling for soldier pile walls

| **Related Items** | **Required** | **Recommended** |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-08: Piling Tabulation and Cont.<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the computation book form. | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | SDG's 3.5<br>Index 20600 series: 20600, 20601, 20602, 20612, 20614, 20618, 20620, 20624, 20630, 20631, 20654, 20660 |
| | **Specifications** | Section 455 |
| | **Prep & Doc Manual Chapter(s)** | 7, 13 |

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455- 34- AA** **PRESTRESSED CONCRETE PILING** **LF**

A =
1 (12" Sq.)
2 (14" Sq.)
3 (18" Sq.)
4 (20" Sq.)
5 (24" Sq.)
6 (30" Sq.)
7 (36" Sq.)
8 (Special)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 34 1 | PRESTRESSED CONCRETE PILING, 12" SQ. | LF | | 1/1/2010 | |
| 0455 34 2 | PRESTRESSED CONCRETE PILING, 14" SQ. | LF | | 1/1/2010 | |
| 0455 34 3 | PRESTRESSED CONCRETE PILING, 18" SQ | LF | | 1/1/2010 | |
| 0455 34 4 | PRESTRESSED CONCRETE PILING, 20" SQ | LF | | 1/1/2010 | |
| 0455 34 5 | PRESTRESSED CONCRETE PILING, 24" SQ | LF | | 1/1/2010 | |
| 0455 34 6 | PRESTRESSED CONCRETE PILING, 30" SQ | LF | | 1/1/2010 | |
| 0455 34 7 | PRESTRESSED CONCRETE PILING, 36" SQ | LF | | 1/1/2010 | |
| 0455 34 8 | CONCRETE PILING PRESTRESSED, SPECIAL | LF | T | 1/1/2010 | |

## 455- 35- AA PILING, STEEL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Intended to cover cost and installation of the steel “H” or pipe piling.
Quantity computed as the total anticipated length of pile without allowances for cutoffs, splices or preforming

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-08: Piling Tabulation and Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG’s 3.5

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455- 35- AA** **PILING, STEEL** **LF**

AA =
1 (Hp 8 X 36)
2 (Hp 10 X 36)
3 (Hp 10 X 42)
4 (Hp 12 X 53)
5 (Hp 14 X 73)
6 (Hp 14 X 89)
7 (Hp 14 X102)
8 (Hp 14 X 117)
9 (Special)
20 (18” Dia Pipe)
21 (20" Diameter Pipe)
22 (24" Diameter Pipe)
23 (30" Diameter Pipe)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 35 4 | STEEL PILING, HP 12 X 53 | LF | | 1/1/2010 | |
| 0455 35 5 | STEEL PILING, HP 14 X 73 | LF | | 1/1/2010 | |
| 0455 35 6 | STEEL PILING, HP 14 X 89 | LF | | 1/1/2010 | |
| 0455 35 7 | STEEL PILING, HP 14 X 102 | LF | | 1/1/2010 | |
| 0455 35 8 | STEEL PILING, HP 14 X 117 | LF | | 1/1/2010 | |
| 0455 35 9 | STEEL PILING, SPECIAL | LF | T | 1/1/2010 | |
| 0455 35 21 | STEEL PILING, 20" DIA. PIPE | LF | | 1/1/2010 | |
| 0455 35 22 | STEEL PILING, 24" DIA. PIPE | LF | | 1/1/2010 | |
| 0455 35 23 | STEEL PILING, 30" DIA. PIPE | LF | | 1/1/2010 | |

## 455- 37- A FIBERGLASS STRUCTURALLY REINFORCED COMPOSITE PILES

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** to be used with Fender System, Section 471. Refer to Design Standards and Specifications for additional information.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455- 37- A** **FIBERGLASS STRUCTURALLY REINFORCED COMPOSITE PILES** **LF**

A= Size
1 (13" Diameter) to be opened only with Structures Design Approval
2 (16" Diameter)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 37 2 | FIBERGLASS STRUCTURALLY REINFORCED COMPOSITE PILE, 16" D | LF | | 1/1/2010 | |

## 455- 76- WRAP PILE CLUSTERS

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Repair/Rehab Projects only.
Intended on fender repair projects.
Show locations in plans w/ quantity block.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455- 76-** **WRAP PILE CLUSTERS** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 76 | WRAP PILE CLUSTERS | EA | | 1/1/2010 | |

## 455- 81-ABB CATHODIC PROTECTION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Intended for Pile or Pier installation of Zinc or Titanium anode, installed as routine maintenance on H-piles and steel sheet piles used for seawalls. Show locations in plans

with quantity block. Contact State Materials Office, Corrosion Lab for assistance in use of this item.

Electrical Work paid under item 400-60-A.

DO NOT USE this item with 400-142 (Cathodic Protection for mass concrete or structural components) or 457 items (integral pile jackets).

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 400-60 **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455- 81-ABB** **CATHODIC PROTECTION** **EA**

A = Operation
1 (Furnish & Install)

BB = Assembly Material
01 (Pile, Zinc Anode Assembly)
02 (Pier, Zinc Anode Assembly)
04 (Pile, Titanium Anode Assembly)
05 (Pier, Titanium Anode Assembly)
06 (Other) specified in the plans

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 81101 | CATHODIC PROTECTION, F&I, PILE, ZINC ANODE ASSEMBLY | EA | T | 1/1/2010 | |
| 0455 81102 | CATHODIC PROTECTION, F&I, PIER, ZINC ANODE ASSEMBLY | EA | T | 1/1/2010 | |
| 0455 81104 | CATHODIC PROTECTION, F&I, PILE, TITANIUM ANODE PROTECTION | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0455 81105 | CATHODIC PROTECTION, F&I, PIER, TITANIUM ANODE ASSEMBLY | EA | 1/1/2010 |
| 0455 81106 | CATHODIC PROTECTION, F&I, PIER, OTHER MATERIAL ASSEMBLY | EA | 1/1/2010 |

## 455- 87- STEEL ANCHOR BAR

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended for wall anchor tiebacks to connect wall to dead men, or anchor piles. Not for prestressed soil anchor applications.
Show locations in plans w/ quantity block. Design for sacrificial thickness and coat with coal tar epoxy, if required

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455- 87-** **STEEL ANCHOR BAR** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 87 | ANCHOR BAR, STEEL | EA | | 1/1/2010 | |

## 455- 88- AA DRILLED SHAFT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** PAY ITEM VALID FOR BRIDGE STRUCTURES ONLY. Drilled Shaft foundations for High Mast Lighting, Overhead Signs, and Mast Arms are included in the price of the item being installed; no separate payment for these items.

Intended to pay for the cost of concrete and steel, temporary casing, all labor, materials, equipment and incidentals necessary to complete the drilled shaft. Length is measured from top-of-shaft elevation to the design tip elevation shown in the plans. Pay Item 455-

122-XAA is required with this item. Pay Item 455-122 covers the cost of the shaft excavation. Clearly specify in plans CSL testing requirements as required. Cost of Shaft Inspection Device included in cost of drilled shaft, 455- 88-XAA. CSL tubes included under 455- 88-XAA. CSL testing paid for under Item 455-142.

**Related Items** **Required** 455-122 (2455-122) **Recommended** 455-142 when CSL testing is required

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 3.6

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455- 88- AA** **DRILLED SHAFT** **LF**

AA = Diameter
1 (24" Diameter)
2 (30" Diameter)
3 (36" Diameter)
4 (42" Diameter)
5 (48" Diameter)
6 (60" Diameter)
7 (72" Diameter)
8 (54" Diameter)
9 (66" Diameter)
15 (84" Diameter)
19 (90" Diameter)
20 (108" Diameter)
21 (96" Diameter)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455 88 1 | DRILLED SHAFT, 24" DIA | LF | | 1/1/2010 | |
| 0455 88 2 | DRILLED SHAFT, 30" DIA | LF | | 1/1/2010 | |
| 0455 88 3 | DRILLED SHAFT, 36" DIA | LF | | 1/1/2010 | |
| 0455 88 4 | DRILLED SHAFT, 42" DIA | LF | | 1/1/2010 | |
| 0455 88 5 | DRILLED SHAFT, 48" DIA | LF | | 1/1/2010 | |
| 0455 88 6 | DRILLED SHAFT, 60" DIA | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0455 88 7 | DRILLED SHAFT, 72" DIA | LF | 1/1/2010 |
| 0455 88 8 | DRILLED SHAFT, 54" DIA | LF | 1/1/2010 |
| 0455 88 9 | DRILLED SHAFT, 66" DIA | LF | 1/1/2010 |
| 0455 88 15 | DRILLED SHAFT, 84" DIA | LF | 1/1/2010 |
| 0455 88 19 | DRILLED SHAFT, 90" DIA | LF | 1/1/2010 |
| 0455 88 20 | DRILLED SHAFT, 108 " DIA | LF | 1/1/2010 |
| 0455 88 21 | DRILLED SHAFT, 96" DIA | LF | 1/1/2010 |

## 455- 93- THERMAL INTEGRITY TESTING FOR DRILLED SHAFTS

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Monitor: Larry Jones, State Geotechnical Engineer**

**Details** Contact the monitor prior to use. Project specific approval required; do not use without approval of the State Geotechnical Engineer. Specifications are under development by the monitor.

Estimate the quantity based on the number of drilled shafts to be tested.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **455- 93-** **THERMAL INTEGRITY TESTING FOR DRILLED SHAFTS** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 455-101- A LOAD TEST- OSTERBERG

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended to load test drilled shafts using Osterberg Cells. Show location and test load of o-cells test shafts. Show number and depth of o-cells for each test shaft.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 455-129-XXA **Recommended** 455-131- and 455-132- required for test located on water.

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Soils and Foundations Handbook 10.3.3

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-101- A** **LOAD TEST- OSTERBERG** **EA**

A =
1 (Less Than 5 Cells)
2 (5 Or More Cells)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455101 1 | TEST LOAD, OSTERBERG CELL, LESS THAN FIVE CELLS | EA | T | 1/1/2010 | |
| 0455101 2 | TEST LOAD, OSTERBERG CELL, 5 OR MORE CELLS | EA | T | 1/1/2010 | |

## 455-103-ABB LOAD TEST- STATNAMIC

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Intended for Statnamic load testing of piles or drilled shafts. Show location and test load of test shafts or piles.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 455-129- A **Recommended** 455-131- and 455-132- required for test located on water.

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards Specifications** Soils and Foundations Handbook 10.3.1

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-103-ABB** **LOAD TEST- STATNAMIC** **EA**

A = Type
1 (Compression)
2 (Lateral)

BB = Test Capacity
01 ( 100 Tons)
02 ( 200 Tons)
03 ( 300 Tons)
04 ( 400 Tons)
05 ( 500 Tons)
06 ( 600 Tons)
07 ( 700 Tons)
08 ( 800 Tons)
09 ( 900 Tons)
10 (1000 Tons)
11 (1100 Tons)
12 (1200 Tons)
13 (1300 Tons)
14 (1400 Tons)
15 (1500 Tons)
16 (1600 Tons)
30 (3000 Tons)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455103110 | LOAD TEST - STATNAMIC, COMPRESSION, 1000TN | EA | T | 1/1/2010 | |

**455-107- AA** **DRILLED SHAFT CASING**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Intended on drilled shaft projects when plans require permanent casing method be used. Permanent casing is typically not paid for separately for portions of shaft in waterway unless permanent casing method is required for shaft below the mud line. Show locations and depths in drilled shaft data table.

**Related Items** **Required** 455-122- AA, 455-88- AA **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other Standards** SDG's 3.6

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-107- AA** **DRILLED SHAFT CASING** **LF**

AA = Diameter
1 (24")
2 (30")
3 (36")
4 (42")
5 (48")
6 (60")
7 (72")
8 (54")
9 (66")
18 (84)
19 (90")
20 (108")
21 (96")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455107 1 | DRILLED SHAFT CASING, 24" DIAMETER | LF | | 1/1/2010 | |
| 0455107 2 | DRILLED SHAFT CASING, 30" DIAMETER | LF | | 1/1/2010 | |
| 0455107 3 | DRILLED SHAFT CASING, 36" DIAMETER | LF | | 1/1/2010 | |
| 0455107 4 | DRILLED SHAFT CASING, 42" DIAMETER | LF | | 1/1/2010 | |
| 0455107 5 | DRILLED SHAFT CASING, 48" DIAMETER | LF | | 1/1/2010 | |
| 0455107 6 | DRILLED SHAFT CASING, 60" DIAMETER | LF | | 1/1/2010 | |
| 0455107 7 | DRILLED SHAFT CASING, 72" DIAMETER | LF | | 1/1/2010 | |
| 0455107 8 | DRILLED SHAFT CASING, 54" DIAMETER | LF | | 1/1/2010 | |
| 0455107 9 | DRILLED SHAFT CASING, 66" DIAMETER | LF | | 1/1/2010 | |
| 0455107 18 | DRILLED SHAFT CASING, 84" DIAMETER | LF | | 1/1/2010 | |
| 0455107 19 | DRILLED SHAFT CASING, 90" DIAMETER | LF | | 1/1/2010 | |
| 0455107 20 | DRILLED SHAFT CASING, 108" DIAMETER | LF | | 1/1/2010 | |
| 0455107 21 | DRILLED SHAFT CASING, 96" DIAMETER | LF | | 1/1/2010 | |

## 455-111- CORE/PILOT HOLE- DRILLED SHAFT EXCAVATION

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Intended for payment of pilot holes or cores for drilled shaft projects to determine the quality of the material below the tip.
Pilot holes are taken at shaft locations prior to shaft excavation.
Cores are taken below the tip of an excavated shaft.
Pilot holes or cores when deemed necessary, are typically taken 3 to 5 shaft diameters below the shaft's planned tip elevation. Use 3 shaft diameters unless otherwise noted in the plans.
Show location in the plans. Clarify whether pilot holes or cores are to be taken. Base quantity on the anticipated pilot hole and/or core length needed. Include pay item note.

Establish quantities as follows: Cores: measured from the bottom of shaft elevation to the bottom of the core (3 to 5 shaft diameters below tip); Pilot holes: measured from the ground elevation to the bottom elevation of the pilot hole (3 to 5 shaft diameters below tip).

**Related Items** **Required** 455- 88- AA, 455-122- AA **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-111-** **CORE/PILOT HOLE- DRILLED SHAFT EXCAVATION** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455111 | CORE-PILOT HOLE, DRILLED SHAFT EXCAVATION | LF | | 1/1/2010 | |

## 455-112- A PILE- AUGER GROUTED

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Intended for payment of auger cast piles to support miscellaneous structures. Do not use with Pay Item 534- 72-1AA. Cost of sound barrier foundations included in the cost of sound barrier wall. Not for use to support bridge structures.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-08: Piling Tabulation and Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Soils and Foundations Manual 8.2.4, SDG's 3.1
**Specifications** Section 455
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-112- A** **PILE- AUGER GROUTED** **LF**

A =
1 (16" Diameter)
2 (14" Diameter)
3 (24" Diameter)
4 (30" Diameter)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455112 3 | PILE AUGER GROUTED, 24" DIA | LF | | 1/1/2010 | |

## 455-119-ABB LOAD TEST- STATIC

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended for static axial or lateral load testing of piles or drilled shafts. Not used for Osterberg- Cell or Statnamic tests. Show location and test load in plans.

**Related Items** **Required** 455-129- A **Recommended** 455-131- and 455-132- required for test located on water.

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other** Soils and Foundations Handbook 10.3.1, Normally requires SHOP DRAWINGS

**Standards**

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-119-ABB** **LOAD TEST- STATIC** **EA**

A = Type Load
1 (Compression)
2 (Tension)
3 (Lateral)

BB = Amount Of Load
01 ( 0 - 50 Tons)
02 (51 - 100 Tons)
03 (101 - 600 Tons)
04 (601 -1200 Tons)
05 (1201-1800 Tons)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455119103 | LOAD TEST-STATIC, COMPRESSION,101-600 TONS | EA | | 1/1/2010 | |
| 0455119201 | LOAD TEST-STATIC, TENSION, 0-50 TONS | EA | | 1/1/2010 | |
| 0455119301 | LOAD TEST-STATIC, LATERAL, 0-50 TONS | EA | | 1/1/2010 | |

## 455-120- A PILE POINT PROTECTION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended for steel "H" or pipe piling and steel sheet piling projects when borings show soils that may be difficult to penetrate. Show locations in plans w/ quantity block

**Related Items** **Required** 455- 35, 455-133 **Recommended**

**Design Forms and Documentation** COMP 700-050-08: Piling Tabulation and Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-120- A** **PILE POINT PROTECTION** **EA**

A =
1 (HP 14" X 89)
2 (20" Sq.)
3 (24" Sq.)
4 (HP 14 X 117)
5 (HP 14" X 73")
6 (20" round)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455120 1 | PILE POINT PROTECTION, HP 14" X 89" | EA | | 1/1/2010 | |
| 0455120 2 | PILE POINT PROTECTION, 20" SQ | EA | | 1/1/2010 | |
| 0455120 3 | PILE POINT PROTECTION, 24" | EA | | 1/1/2010 | |
| 0455120 4 | PILE POINT PROTECTION, HP 14" X 117" | EA | | 1/1/2010 | |
| 0455120 5 | PILE POINT PROTECTION, HP 14" X 73" | EA | | 1/1/2010 | |

## 455-122- AA UNCLASSIFIED SHAFT EXCAVATION

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Intended for the excavation of the drilled shafts. Pay Item 455-88-XAA is required with this item. Quantity is the depth of excavated hole from ground elevation to tip of shaft.

**Related Items** **Required** 455- 88- AA **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 3.6

**Specifications** Section 455

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 455-122- AA UNCLASSIFIED SHAFT EXCAVATION LF**

AA =
1 (24" Diameter.)
2 (30" Diameter.)
3 (36" Diameter.)
4 (42" Diameter.)
5 (48" Diameter.)
6 (60" Diameter.)
7 (72" Diameter.)
8 (54" Diameter.)
9 (66" Diameter.)
19 (90" Diameter.)
20 (108" Diameter.)
21 (96" Diameter.)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455122 3 | EXCAVATION UNCLASSIFIED SHAFT, 36" DIA | LF | | 1/1/2010 | |
| 0455122 4 | EXCAVATION UNCLASSIFIED SHAFT, 42" DIA | LF | | 1/1/2010 | |
| 0455122 5 | EXCAVATION UNCLASSIFIED SHAFT, 48" DIA | LF | | 1/1/2010 | |
| 0455122 6 | EXCAVATION UNCLASSIFIED SHAFT, 60" DIA | LF | | 1/1/2010 | |
| 0455122 7 | EXCAVATION UNCLASSIFIED SHAFT, 72" DIA | LF | | 1/1/2010 | |
| 0455122 8 | EXCAVATION UNCLASSIFIED SHAFT, 54" DIA | LF | | 1/1/2010 | |
| 0455122 15 | EXCAVATION UNCLASSIFIED SHAFT, 84" DIA | LF | | 1/1/2010 | |
| 0455122 19 | EXCAVATION UNCLASSIFIED SHAFT, 90" DIA | LF | | 1/1/2010 | |
| 0455122 21 | EXCAVATION UNCLASSIFIED SHAFT, 96" DIA | LF | | 1/1/2010 | |

## 455-129- A INSTRUMENTATION AND DATA COLLECTION (STRUCTURES FOUNDATIONS)

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** Intended for use with all static, statnamic and Osterberg Cell load tests.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 455-101, 455-103, or 455-119 **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Soils and Foundations Handbook 10.3

**Specifications** Section 455

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-129- A** **INSTRUMENTATION AND DATA COLLECTION (STRUCTURES FOUNDATIONS)** **LS/LS**

A =

2 (Drilled Shaft Foundation)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455129 2 | INSTRUMENTATION & DATA COLLECT, DRILL SHAFT FOUND | LS | | 1/1/2010 | |

## 455-133-AAA SHEET PILING

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Selected items are monitored by the State Geotechnical Engineer. Contact Larry Jones, State Geotechnical Engineer in the State Structures Design Office, prior to including the monitored items on any project.**

**Details**

STEEL PERMANENT: Complete designs and details must be provided in the plans including the Steel sheeting section, begin and end stations, top and bottom pile elevations. Refer to Section 455 for current specifications.

STEEL TEMPORARY: This item should be utilized for temporary sheet pile installations that are installed at “critical locations.” Critical walls” are walls necessary to maintain the

safety of the traveling public or structural integrity of nearby structures, roadways and utilities during construction. Refer to Section 455 for current specifications.
For temporary critical walls requiring soil anchors, dead men etc., provide full details in plans (design of wale, soil anchor spacing and load, dead men anchor, number of proof test and creep test required, etc.).

COMPOSITE POLYURETHANE & GLASS FIBER: Low height sheet pile for shoreline protection. Polyurethane resin/glass fiber matrix pultruded material. Experimental use only. The use of this item must be approved by the State Geotechnical Engineer.

VINYL: The Interlocking Vinyl Sheet Piling Wall consists of Vinyl sheet piling manufactured from extruded, UV stabilized Polyvinyl Chloride (PVC). The use of this item must be approved by the State Geotechnical Engineer.

Complete design and details must be provided in the plans
including the section modulus, begin and end stations, top and bottom pile elevations. See 455-12.6.2 for additional information.

**********
TRNS*PORT Category: When walls are used for construction of a structure and shown in the structures plans, load the item in the corresponding structures category. When walls are used for other applications (roadway or utilities), load the item in the corresponding category.

MEASUREMENT: The area to be paid for will be measured from top of pile elevation to bottom of pile elevation and longitudinally from beginning to end of wall, as shown in the plans.

PAYMENT: PLAN QUANTITY will be the basis of payment to the contractor. No separate payment will be made for the cost of the anchor system for anchored

**Related Items** **Required** **Recommended** 455-120

**Design Forms and Documentation**
COMP 700-050-08: Piling Tabulation and Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** SDG's 3.5, Normally requires SHOP DRAWINGS
**Specifications** Section 455
**T: Selected Items may require Plan Details and/or Technical Specifications**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

| **Struct.** | **455-133-AAA** | **SHEET PILING** | **SF** |
|---|---|---|---|

AAA = Material & Operation

for Concrete- use Item 455-14-
2 (Steel, Temporary- Critical)
3 (Steel, Furnish & Install Permanent)
4 (Composite Polyurethane & glass fiber) *
5 (Vinyl, Furnish & Install Permanent) *

*Must be approved by State Geotechnical Engineer for each project; Tech Specs required.

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| **455-142-** | **CROSSHOLE SONIC LOGGING / DRILLED SHAFT TESTING** |
|---|---|

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Intended for integrity testing of drilled shafts. CSL tubes are required to be placed in all drilled shafts, but only a portion of shafts will actually be tested. Determine number of shafts to be CSL tested; identify shafts in the plans.

This pay item should NOT be included for miscellaneous structures with drilled shafts smaller than 60 inches in diameter.

If the Engineer suspects defects in any drilled shaft installation, additional CSL testing may be required. If the installation is found to be defective, no additional payment will be made for testing or required corrections. If the installation is found to meet specifications, then payment for CSL testing will be made as unforeseeable work.

**Related Items** **Required** 455-88, 455-122-XAA **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Soils and Foundation Handbook 10.4.2, 10.4.3

**Specifications** Section 455

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-142-** **CROSSHOLE SONIC LOGGING / DRILLED SHAFT TESTING** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455142 | CROSSHOLE SONIC LOGGING | EA | T | 1/1/2010 | |

## 455-143- AA TEST PILES- PRESTRESSED CONCRETE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For Projects let January 2009 and later: Intended to cover cost and installation of the prestressed concrete test piling. Includes the payment for dynamic load test on test piles. Quantity computed as the total anticipated length of pile, without allowances for cutoffs, splices, or preforming.

For projects let through December 2008: Intended to cover cost and installation of the prestressed concrete test piling. PDA paid for separately under item 455-137. Intended to cover cost and installation of the prestressed concrete piling. Quantity computed as the total anticipated length of pile, without allowances for cutoffs, splices, or preforming.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 455-137, 455-34 **Recommended**

**Design Forms and Documentation**

COMP 700-050-08: Piling Tabulation and Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Soils and Foundation Handbook 10.1, 10.2

**Specifications** Section 455

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-143- AA** **TEST PILES- PRESTRESSED CONCRETE** **LF**

AA =
1 (12" Sq.)
2 (14" Sq.)
3 (18" Sq.)
4 (20" Sq.)
5 (24" Sq.)
6 (30" Sq.)
7 (36" Dia)
8 (Special)* open only with approval from State Structures Design Office

**Notes** * Special may require Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455143 1 | TEST PILES-PRESTRESSED CONCRETE,12" SQ | LF | | 1/1/2010 | |
| 0455143 2 | TEST PILES-PRESTRESSED CONCRETE,14" SQ | LF | | 1/1/2010 | |
| 0455143 3 | TEST PILES-PRESTRESSED CONCRETE,18" SQ | LF | | 1/1/2010 | |
| 0455143 4 | TEST PILES-PRESTRESSED CONCRETE,20" SQ | LF | | 1/1/2010 | |
| 0455143 5 | TEST PILES-PRESTRESSED CONCRETE,24" SQ | LF | | 1/1/2010 | |
| 0455143 6 | TEST PILES-PRESTRESSED CONCRETE,30" SQ | LF | | 1/1/2010 | |
| 0455143 7 | TEST PILES-PRESTRESSED CONCRETE,36" SQ | LF | | 1/1/2010 | |

## 455-144- AA TEST PILES- STEEL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Intended to cover cost and installation of the steel test piling. PDA paid for separately under item 455-137.
Design quantity computed as the total anticipated length of test pile without allowances for cutoffs, splices or preforming. Show locations on Foundation Layout Sheet. Give test pile lengths in Pile Installation Table.

Construction/Final quantity for Test Piles is computed as follows:
(Sum of test pile lengths) + [(0.3) x Sum of required preformed pile hole depths for test piles]
Do not add allowances for splices.

Include quantity for preformed holes only if preforming is known to be required and shown in the plans. Do not use as contingency.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 455-137, 455-34 **Recommended**

**Design Forms and Documentation**

COMP 700-050-08: Piling Tabulation and Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Soils and Foundation Handbook 10.1, 10.2

**Specifications** Section 455

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-144- AA** **TEST PILES- STEEL** **LF**

AA =
1 (Hp 8 X 36)
2 (Hp 10 X 36)
3 (Hp 10 X 42)
4 (Hp 12 X 53)
5 (Hp 14 X 73)
6 (Hp 14 X 89)
7 (Hp 14 X 102)
8 (Hp 14 X 117)
9 (Special)*
20 (18" Dia Pipe)
21 (20" Dia Pipe)
22 (24" Dia Pipe)
23 (30" Dia Pipe)

**Notes** * Special may require Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455144 1 | TEST PILES - STEEL, HP 8 x 36 | LF | | 1/1/2010 | |
| 0455144 2 | TEST PILES - STEEL, HP 10 x 36 | LF | | 1/1/2010 | |
| 0455144 3 | TEST PILES - STEEL, HP 10 x 42 | LF | | 1/1/2010 | |
| 0455144 4 | TEST PILES - STEEL, HP 12 x 53 | LF | | 1/1/2010 | |
| 0455144 5 | TEST PILES, STEEL, HP 14 X 73 | LF | | 1/1/2010 | |
| 0455144 6 | TEST PILES - STEEL, HP 14 x 89 | LF | | 1/1/2010 | |
| 0455144 8 | TEST PILES - STEEL, HP 14 x 117 | LF | | 1/1/2010 | |
| 0455144 9 | TEST PILES - STEEL, SPECIAL | LF | T | 1/1/2010 | |
| 0455144 20 | TEST PILES - STEEL, 18" DIA PIPE | LF | | 1/1/2010 | |
| 0455144 21 | TEST PILES - STEEL, 20" DIA PIPE | LF | | 1/1/2010 | |
| 0455144 22 | TEST PILES - STEEL, 24" DIA PIPE | LF | | 1/1/2010 | |
| 0455144 23 | TEST PILES - STEEL, 30" DIA PIPE | LF | | 1/1/2010 | |

## 455-146- EMBEDDED DATA COLLECTOR

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Refer to Structures Design Bulletin C10-02 for additional information.**

**Details** Estimate one EDC per square prestressed concrete pile.
Each collector system will include gauges at the top and tip, as well as antenna and incidental equipment for installation in each pile, as shown in the standard.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 20602

**Specifications**

Special Provision available

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **455-146-** **EMBEDDED DATA COLLECTOR** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0455146 | EMBEDDED DATA COLLECTOR | EA | | 1/1/2010 | |

## 457- 1- AB STANDARD INTEGRAL PILE JACKET

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Intended for rehabilitation projects to repair concrete pile damage or to protect sheet piles. Project details (plans or specs) must include jacket lengths. Grout material(s) should be specified in the plans or specifications. Epoxy Grout filler may be used ONLY with permission of the State Materials Office, Corrosion Lab.

Estimate quantity based on measurement from the bottom of the form to the top of the form, per the specifications. Show locations in plans w/ quantity block. Contact State Materials Office, Corrosion Lab for assistance in use of this item.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards Specifications** Normally requires SHOP DRAWINGS

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 457- 1- AB** **STANDARD INTEGRAL PILE JACKET** **LF**

A = Type
1 (non-structural)
2 (Structural)

B= Pile Size
1 (up to 16")
2 (16.1 to 30")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0457 1 11 | STANDARD INTEGRAL PILE JACKET, NON-STRUCTURAL, UP TO 16" | LF | T | 1/1/2010 | |
| 0457 1 12 | STANDARD INTEGRAL PILE JACKET, NON-STRUCTURAL, 16.1 to 30.0" | LF | T | 1/1/2010 | |
| 0457 1 21 | STANDARD INTEGRAL PILE JACKET, STRUCTURAL, UP TO 16" | LF | T | 1/1/2010 | |
| 0457 1 22 | STANDARD INTEGRAL PILE JACKET, STRUCTURAL, 16.1 to 30.0" | LF | T | 1/1/2010 | |

## 457- 2- AB CATHODIC PROTECTION INTEGRAL PILE JACKET

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Intended for rehabilitation projects to repair concrete pile corrosion damage. Project details (plans or specs) must include jacket lengths, anode type and configuration, as well as connection methods and materials for cathodic protection. Grout material(s) should be specified in the plans or specifications.

Estimate quantity based on measurement from the bottom of the form to the top of the form, per the specifications. Show locations in plans w/ quantity block. Contact State Materials Office, Corrosion Lab for assistance in use of this item.

Electrical Work will be paid under 400-60, when required for impressed current jackets. For galvanic jackets, include a note in the plans or specifications indicating that electrical work is incidental to the cost of the integral Cathodic protection pile jacket.

See items 400-142 (structure) and 455-81 (pier or pile) for other Cathodic Protection work.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** 400- 60- **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards Specifications**

Normally requires SHOP DRAWINGS

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **457- 2- AB** **CATHODIC PROTECTION INTEGRAL PILE JACKET** **LF**

A = Type
1 (non-structural)
2 (Structural)

B= Pile Size
1 (up to 16")
2 (16.1 to 30")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0457 2 11 | CATHODIC PROTECTION INTEGRAL PILE JACKET, NON-STRUCTURAL, UP TO 16" | LF | T | 1/1/2010 | |
| 0457 2 12 | CATHODIC PROTECTION INTEGRAL PILE JACKET, NON-STRUCTURAL, 16.1-30." | LF | T | 1/1/2010 | |
| 0457 2 13 | CATHODIC PROTECTION INTEGRAL PILE JACKET, NON-STRUCTURAL, 30.1" AND LARGER | LF | T | 1/1/2010 | |
| 0457 2 21 | CATHODIC PROTECTION INTEGRAL PILE JACKET, STRUCTURAL, UP TO 16" | LF | T | 1/1/2010 | |
| 0457 2 22 | CATHODIC PROTECTION INTEGRAL PILE JACKET, STRUCTURAL, 16.1-30." | LF | T | 1/1/2010 | |
| 0457 2 23 | CATHODIC PROTECTION INTEGRAL PILE JACKET, STRUCTURAL, PILE SIZE 30.1" AND LARGER | LF | T | 1/1/2010 | |

**458- 1- AB** **BRIDGE DECK EXPANSION JOINT**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Refer to Design Standards and Specifications for selection and use of these joints.

Poured joints- Type A, B, or C silicone is included in the cost of the concrete item; no separate payment.
Poured Joints with Backer Rod- Type D silicone is paid under this item.
Strip Seal Joint System- Elastomeric material, as indicated in specs & standards, is paid under this item.
Note: Tech Specs are required for selected types of joints/materials, as shown in the pay item structure.

For Bridge Approach Expansion Joints near bridge approach slabs, refer to 370 items.
For Concrete Joint repairs in Structures, refer to 400 items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other** | |
| | **Standards** | Index No. 21110, 21100 |
| | **Specifications** | Section 458 |
| | **Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 458- 1- AB BRIDGE DECK EXPANSION JOINT LF**

A= Operation
1 (New Construction- F&I)
2 (Rehabilitation- Clean, Seal, Replace)

B= Type
1 (Poured Joint with Backer Rod) Type D silicone
2 (Strip Seal Joint System)
3 (Modular) Note: Tech Spec Required, including material and installation specs
4 (Finger Joint) Note: Tech Spec Required, including material and installation specs
5 (Compression Elastomeric) Note: For Rehab only. Tech Spec Required, including material and installation specs
6 (Other) Note: For Rehab only. Tech Spec Required, including material and installation specs

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0458 1 11 | BRIDGE DECK EXPANSION JOINT, NEW CONSTRUCTION, F&I POURED JOINT WITH BACKER ROD | LF | | 1/1/2010 | |
| 0458 1 12 | BRIDGE DECK EXPANSION JOINT, NEW CONSTRUCTION, F&I STRIP SEAL | LF | | 1/1/2010 | |
| 0458 1 13 | BRIDGE DECK EXPANSION JOINT, NEW CONSTRUCTION, F&I MODULAR | LF | T | 1/1/2010 | |
| 0458 1 14 | BRIDGE DECK EXPANSION JOINT, NEW CONSTRUCTION, F&I FINGER JOINT | LF | T | 1/1/2010 | |
| 0458 1 21 | BRIDGE DECK EXPANSION JOINT, REHABILITATION, POURED JOINT WITH BACKER ROD | LF | | 1/1/2010 | |
| 0458 1 22 | BRIDGE DECK EXPANSION JOINT, REHABILITATION, STRIP SEAL | LF | | 1/1/2010 | |
| 0458 1 23 | BRIDGE DECK EXPANSION JOINT, REHABILITATION, MODULAR | LF | T | 1/1/2010 | |
| 0458 1 24 | BRIDGE DECK EXPANSION JOINT, REHABILITATION, FINGER JOINT | LF | T | 1/1/2010 | |
| 0458 1 25 | BRIDGE DECK EXPANSION JOINT, REHABILITATION, COMPRESSION ELASTOMERIC | LF | T | 1/1/2010 | |
| 0458 1 26 | BRIDGE DECK EXPANSION JOINT, REHABILITATION, OTHER | LF | T | 1/1/2010 | |

## 459- 71- PILES, POLYETHYLENE SHEETING

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details**

Intended on piling or drilled shaft projects to wrap portion of end bent pile or shaft within the fill height to reduce down-drag. Add note on Foundation Layout Sheet.
Pay quantity is the pile area wrapped, NOT the quantity of material applied. For each pile, record the perimeter and the height to be wrapped. Payment includes 2 layers, lubricant, and overlap, as required by specification.
Bitumen Coating paid separately.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-08: Piling Tabulation and Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Soils and Foundations Handbook 8.3.3

**Specifications** Section 459

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **459- 71-** **PILES, POLYETHYLENE SHEETING** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0459 71 | PILES, POLYETHYLENE SHEETING | SY | | 1/1/2010 | |

## 460- 1- AA STRUCTURAL STEEL- REHAB

**Unit** LB; KG **Accuracy** Pound; Kilogram **PlanQuantity?** yes

**Notes**

**Details** Do not use for new steel structures. This item will be used on all rehabilitation work only. Show steel quantities in quantity blocks on plans. Pay for painting of structural steel separately. Conduct lead based paint survey. Add general note to alert Contractor of existing lead based paint.

**Related Items** **Required** **Recommended** 560- 1

**Design Forms and Documentation** COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **460- 1- AA** **STRUCTURAL STEEL- REHAB** **LB**

AA =
1 (Carbon)
2 (Low Alloy)
3 (Shoe Assemblies)
4 (Expansion Assemblies)
5 (Bascule Leaves)
6 (Bascule Piers)
7 (Approach Spans)
11 (Screws, Bolts And Washer Assemblies)
12 (Flanking Spans)
13 (Bolts, Nuts, Washers And Plates)
15 (Miscellaneous)

16 (Movable Span)
18 (Carbon, Truss)
19 (Low Alloy, Truss)
20 (Weathering)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 1 1 | STRUCT STEEL- REHAB, CARBON | LB | | 1/1/2010 | |
| 0460 1 2 | STRUCT STEEL, LOW ALLOY | LB | | 1/1/2010 | |
| 0460 1 3 | STRUCT STEEL - REHABILITATION, SHOE ASSEMBLIES | LB | | 1/1/2010 | |
| 0460 1 5 | STRUCT STEEL - REHABILITATION, BASCULE LEAVES | LB | | 1/1/2010 | |
| 0460 1 11 | STRUCTURAL STEEL REHAB- SCREWS,BOLTS & WASHER ASSEMBLIES | LB | | 1/1/2010 | |
| 0460 1 13 | STRUCTURAL STEEL REHAB- BOLTS, NUTS, WASHERS & PLATES | LB | | 1/1/2010 | |
| 0460 1 15 | STRUCTURAL STEEL - REHABILITATION, MISCELLANEOUS | LB | | 1/1/2010 | |

## 460- 2- AA STRUCTURAL STEEL- NEW/WIDENING

**Unit** LS/LB; LS/KG **Accuracy** Pound; Kilogram **PlanQuantity?** yes

**Notes**

**Details**

Intended for new construction of steel structures and bridge widenings. When painting is specified, cost of painting is incidental to this item.

WEATHERING item used when uncoated weathering steel is specified.

CARBON item used for Grades 36 and higher including weathering steel when painted.

LOW ALLOY item used for Grade 50 steel.

BASCULE LEAVES item used for all grades of steel in bascule leaf except steel used for decking, and steel counterweight blocks. When flanking span remains within the limits of bascule pier, pay under BASCULE PIERS. If not, include under CARBON or LOW ALLOY. Cost of F-shaped or vertical shape steel traffic railing barrier located on bascule leaf included in steel quantity under BASCULE PIERS. Leaf Centering Device Assembly included in steel quantity under BASCULE LEAVES.

BASCULE PIERS item used for all grades of steel in bascule pier except for steel for decking. Cost of F-shaped or vertical shape steel traffic railing barrier located within limits of bascule pier included in steel quantity under BASCULE PIERS.

Calculate weight of steel for estimating purposes only. Due not tabulate steel quantities in the plans. On steel box girder projects add note to include cost of all access hatches, and screen doors in cost of structural steel.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 460- 2- AA STRUCTURAL STEEL- NEW/WIDENING LS/LB**

AA =
1 (Carbon)
2 (Low Alloy)
3 (Shoe Assemblies)
5 (Bascule Leaves)
6 (Bascule Piers)
15 (Miscellaneous)
18 (Carbon, Truss)
19 (Low Alloy, Truss)
20 (Weathering)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 2 1 | STRUCT STEEL, CARBON | LS | | 1/1/2010 | |
| 0460 2 2 | STRUCT STEEL, LOW ALLOY | LS | | 1/1/2010 | |
| 0460 2 3 | STRUCT STEEL, SHOE ASSEMBLIES | LS | | 1/1/2010 | |
| 0460 2 5 | STRUCT STEEL, BASCULE LEAVES | LS | | 1/1/2010 | |
| 0460 2 6 | STRUCT STEEL, BASCULE PIERS | LS | | 1/1/2010 | |
| 0460 2 15 | STRUCT STEEL, MISCELLANEOUS | LS | | 1/1/2010 | |
| 0460 2 20 | STRUCT STEEL - NEW/WIDENING, WEATHERING | LS | | 1/1/2010 | |

## 460- 6- LADDERS & PLATFORMS

**Unit** LB; KG **Accuracy** Pound; Kilogram **PlanQuantity?** yes

**Notes**

**Details** Intended for both steel and aluminum ladders and platforms when necessary for personnel/ maintenance access. Clearly define location w/ quantity block in plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 460- 6- LADDERS & PLATFORMS LB**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 6 | LADDERS & PLATFORMS | LB | | 1/1/2010 | |

## 460- 9- A ACCESS HATCH ASSEMBLY

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**PENDING CHANGE- DO NOT OPEN UNTIL SPECIFICATION AND NEW DESIGN STANDARDS ARE AVAILABLE. Standard to be posted Jan 2011; implement July 2011?**

**Details**

Prior to July 2011, payment for Access Hatch is included in structural steel item(s). Effective July 2011, separate payment for access hatch assembly is included in this item. **********

A=1 or 2: Includes all materials and incidentals shown on design standard for an Inspection Access Hatch Assembly.

A=3: Equipment Access Hatch Assembly is intended for a larger hatch used to bring equipment into a box girder section. Complete details must be included in the bridge plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index 21250 (Steel Box Girder) or 21251 (Concrete Box Girder)

**Specifications** 460

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **460- 9- A** **ACCESS HATCH ASSEMBLY** **EA**

A= Box Section- see details above
1 (Concrete Box Section)
2 (Steel Box Section)
3 (Equipment)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**460- 10- A** **STAINLESS STEEL (For Keys Bridges and Port of Miami)**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Project Specific Items

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **460- 10- A** **STAINLESS STEEL (For Keys Bridges and Port of Miami)** **EA**

A= Project Specific Items
Valid for Keys Bridges and Port Of Miami ONLY

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 10 1 | STAINLESS STEEL, VERMIN GUARDS AT EXPANSION JOINTS, KEYS BRIDGES | EA | | 1/1/2010 | |
| 0460 10 2 | STAINLESS STEEL, PERSONNEL ACCESS MANHOLE, BOTTOM SLAB, APPROX 3'x3' GRATE-BAR TYPE, KEYS BRIDGES | EA | | 1/1/2010 | |
| 0460 10 3 | STAINLESS STEEL, UTILITY ACCESS OPENING, BOTTOM SLAB, APPROX 5'x14', GRATE-BAR TYPE, KEYS BRIDGES | EA | | 1/1/2010 | |
| 0460 10 4 | STAINLESS STEEL, VERMIN GUARDS AT EXPANSION JOINTS, PORT OF MIAMI BRIDGES | EA | | 1/1/2010 | |
| 0460 10 5 | STAINLESS STEEL, PERSONNEL ACCESS MANHOLE, BOTTOM SLAB, APPROX 3'x3' GRATE-BAR TYPE, PORT OF MIAMI BRIDGES | EA | | 1/1/2010 | |
| 0460 10 6 | SPECIAL SECURITY LOCKABLE ACCESS MANHOLE DEVICE, DECK SLAB, PORT OF MIAMI BRIDGE | EA | | 1/1/2010 | |

## 460- 13- A STRUCTURAL STEEL REHAB- SANDWICH PLATE SYSTEM

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes** **Experimental Item. Requires State Structures Design Office Approval / FHWA**

**Details**

Must be coordinated with State Structures Design Office.
Consists of Furnishing and Installing Sandwich Plate System, including wearing surface, bridge deck, and supporting stringer.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 460

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **460- 13- A** **STRUCTURAL STEEL REHAB- SANDWICH PLATE SYSTEM** **SY**

A=
1 (Deck and Stringer)
2 (Deck)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 460- 70- A ALUMINUM BULLET RAILINGS

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Consists of furnishing and installing bullet railing on top of traffic railing barriers and parapets to protect pedestrians or bicycles. Note details on Indexes 423, 820, 821, and 822 For other aluminum railings, refer to Index Series 860 and 870, and pay items 515-1-xxa and 515-2-xxa.

**Related Items** **Required** 521- 6- A when Index 820 Pedestrian Bicycle railing is used **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 423, 820, 821, 822

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **460- 70- A** **ALUMINUM BULLET RAILINGS** **LF**

A =
1 (Single Rail)
2 (Double Rail)
3 (Triple Rail)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 70 1 | ALUMINUM BULLET RAILINGS, SINGLE RAIL | LF | | 1/1/2010 | |
| 0460 70 2 | ALUMINUM BULLET RAILINGS, DOUBLE RAIL | LF | | 1/1/2010 | |
| 0460 70 3 | ALUMINUM BULLET RAILINGS, TRIPLE RAIL | LF | | 1/1/2010 | |

## 460- 71- A METAL TRAFFIC RAILING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Consists of furnishing and installing metal traffic barriers, for new construction or Barrier Retrofit.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other** SDG's 6.7

**Standards** Index No. 470, 471, 472, 473, 474, 475, and 476

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct. 460- 71- A METAL TRAFFIC RAILING LF**

A =
1 (Thrie Beam Retrofit)
2 (Steel Post And Rail) Non-standard; custom design may be required.
3 (Steel Post and Rail-Retaining Wall System Maintenance)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 71 1 | METAL TRAFFIC RAILING,THRIE BEAM RETROFIT | LF | | 1/1/2010 | |
| 0460 71 2 | METAL TRAFFIC RAILING,STEEL POST AND RAIL | LF | | 1/1/2010 | |

## 460- 81- A RIVET / HIGH STRENGTH BOLT REPLACEMENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Rehabilitation projects only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 460

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **460- 81- A** **RIVET / HIGH STRENGTH BOLT REPLACEMENT** **EA**

A =
Blank (Standard)
1 (Special)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 81 | RIVETS - HIGH STRENGTH BOLTS, REPLACEMENT | EA | T | 1/1/2010 | |

## 460- 95- STRUCTURAL STEEL REPAIR

**Unit** LB; KG **Accuracy** Pound; Kilogram **PlanQuantity?** yes

**Notes**

**Details** Intended on rehabilitation projects for in-place heat straightening. Quantity based on weight of steel components to be repaired. Show locations in the plans w/ pay item note to address all work items required.

**Related Items** **Required** 460- 1-XAA **Recommended**

**Design Forms and Documentation** COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 460- 95- STRUCTURAL STEEL REPAIR LB**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 95 | STRUCTURAL STEEL REPAIR | LB | T | 1/1/2010 | |

## 460- 98- A PIPE HANGER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

to be used ONLY for non-drainage system applications such as structure utility attachments. When deck inserts are required for utility attachments by others, do not include this item. Deck inserts are included in the cost of the superstructure concrete. Show location spacing w/ quantity block in plans.
Note: Pipe hangers for bridge drainage system paid for under 506-2.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 460- 98- A PIPE HANGER EA**

A =
1 (Carbon)
2 (Stainless)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460 98 1 | PIPE HANGER, CARBON | EA | T | 1/1/2010 | |
| 0460 98 2 | PIPE HANGER, STAINLESS | EA | T | 1/1/2010 | |

## 460-112- ANCHOR BOLT REPLACEMENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For rehabilitation jobs only. Show location with quantity block in plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 460

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **460-112-** **ANCHOR BOLT REPLACEMENT** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0460112 | ANCHOR BOLT REPLACEMENT | EA | T | 1/1/2010 | |

## 461-113- AB MULTI ROTATIONAL BEARING ASSEMBLY- FIXED

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended furnish and installing pot, disc or cylindrical bearing assemblies. Include location w/ quantity block in plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 6.5, Normally requires SHOP DRAWINGS

**Specifications** Section 461

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 461-113- AB MULTI ROTATIONAL BEARING ASSEMBLY- FIXED EA**

A = Operation
1 (Furnish & Install)

B =
1 ( 1 - 250 Kips)
2 ( 251 - 500 Kips)
3 ( 501 - 750 Kips)
4 ( 751 - 1000 Kips)
5 (1001 - 1250 Kips)
6 (1251 - 1500 Kips)
7 (1501 - 1750 Kips)
8 (1751 - 2000 Kips)
9 ( > = 2001 Kips)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0461113 12 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, 251-500 KIPS | EA | | 1/1/2010 | |
| 0461113 13 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, 501- 750KIPS | EA | | 1/1/2010 | |
| 0461113 14 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, 751-1000KIPS | EA | | 1/1/2010 | |
| 0461113 15 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, 1000-1250 KIPS | EA | | 1/1/2010 | |
| 0461113 16 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, 1251-1500 KIPS | EA | | 1/1/2010 | |
| 0461113 17 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, 1501-1750 KIPS | EA | | 1/1/2010 | |
| 0461113 18 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, 1751-2000 KIPS | EA | | 1/1/2010 | |
| 0461113 19 | MULTIROTATIONAL BEARING ASSEM-FIXED, F&I, >= 2001KIPS | EA | | 1/1/2010 | |

| 461-114- AB | MULTI ROTATIONAL BEARING ASSEMBLY- EXPANSION |
|---|---|

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended furnish and installing pot, disc or cylindrical bearing assemblies. Include location w/ quantity block in plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 6.5, Normally requires SHOP DRAWINGS

**Specifications** Section 461

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **461-114- AB** **MULTI ROTATIONAL BEARING ASSEMBLY- EXPANSION** **EA**

A = Operation
1 (Furnish & Install)

B =
1 ( 1 - 250 Kips)
2 ( 251 - 500 Kips)
3 ( 501 - 750 Kips)
4 ( 751 - 1000 Kips)
5 (1001 - 1250 Kips)
6 (1251 - 1500 Kips)
7 (1501 - 1750 Kips)
8 (1751 - 2000 Kips)
9 ( > = 2001 Kips)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0461114 11 | MULTIROTATIONAL BEARING ASSEMBLY EXPANSION,F&I, 1- 250KIPS | EA | | 1/1/2010 | |
| 0461114 12 | MULTIROTATIONAL BEARING ASSEM EXP, F&I, 251- 500KIPS | EA | | 1/1/2010 | |
| 0461114 13 | MULTIROTATIONAL BEARING ASSEM EXP, F&I, 501- 750KIPS | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0461114 14 | MULTIROTATIONAL BEARING ASSEM EXP, F&I, 751- 1000KIPS | EA | 1/1/2010 |
| 0461114 15 | MULTIROTATIONAL BEARING ASSEM-EXPANSION,F&I, 1000-1250KIPS | EA | 1/1/2010 |
| 0461114 16 | MULTIROTATIONAL BEARING ASSEM-EXPANSION,F&I, 1251-1500KIPS | EA | 1/1/2010 |
| 0461114 17 | MULTIROTATIONAL BEARING ASSEM-EXPANSION,F&I,1501-1750KIP | EA | 1/1/2010 |
| 0461114 18 | MULTIROTATIONAL BEARING ASSEM-EXPANSION,F&I,1751-2000KIP | EA | 1/1/2010 |
| 0461114 19 | MULTIROTATIONAL BEARING ASSEM-EXPANSION,F&I, >=2001KIPS | EA | 1/1/2010 |

## 462- 2- AA POST TENSIONING TENDONS

**Unit** LB; KG **Accuracy** Pound; Kilogram **PlanQuantity?** yes

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-07: Concrete & Reinforcing Steel Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 462

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **462- 2- AA** **POST TENSIONING TENDONS** **LB**

AA =
11 (Superstructure Strand)
12 (Superstructure Bar)
13 (Substructure Strand)
14 (Substructure Bar)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0462 2 11 | POST TENSIONING TENDONS, SUPERSTRUCTURE STRAND | LB | | 1/1/2010 | |
| 0462 2 12 | POST TENSIONING TENDONS, SUPERSTRUCTURE BAR | LB | | 1/1/2010 | |
| 0462 2 13 | POST TENSIONING TENDONS, SUBSTRUCTURE STRAND | LB | | 1/1/2010 | |
| 0462 2 14 | POST TENSIONING TENDONS, SUBSTRUCTURE BAR | LB | | 1/1/2010 | |

## 462- 3- ADDITIONAL POST-TENSIONING IN SEGMENTAL BOX SPAN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Intended for rehabilitation projects intended to strengthen span with the installation of additional post-tensioning. Show location in plans. Include a schedule of post tensioning tendons w/ quantity block in plans. Include a pay item notes as necessary to cover the work activity.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other** SDG's 4.5

**Standards** Index 21801, 21802, and 21803

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **462- 3-** **ADDITIONAL POST-TENSIONING IN SEGMENTAL BOX SPAN** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 462- 20- A POST TENSIONING REPAIR

**Unit** EA; LF; CF **Accuracy** Each; Linear Foot; Cubic Foot **PlanQuantity?** no

**Notes**

**Details** NOT FOR USE ON NEW CONSTRUCTION. Details to be included in Tech Specs.

Tendon Inspection: Do not include repairs under this item, except for repair of inspection holes.
Anchorage Inspection: Do not include void repairs or pour backs under this item.
Tendon Repair Set-up: to be used every time a void is detected and is to cover the cost of installing injection and outlet points, preparing to fill void, and sealing of these areas after completion. Shop drawings may be required.
Replace Anchorage Protect Sys: Includes replacement of the tendon anchorage protect system
Repair External Ducts: Not for use to repair areas damaged while repairing voids.
Tendon Replace: Remove & replace complete tendons, including anchorage components, placement & stressing new tendon, grouting, inspection, and protection system.
Grout Tendon Voids: Includes installation & material, detailed in Tech Spec
Install Grout Ports: includes drilling and installing grout ports suitable for connection to grouting equipment.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| **Related Items** | **Required** | **Recommended** |
|---|---|---|
| **Design Forms and Documentation** | See Details Above<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**T: Plan Details and/or Technical Specifications required**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 462- 20- A POST TENSIONING REPAIR EA; LF; CF**

A=
1 (Tendon Inspection) LF
2 (Anchorage Inspection) EA
3 (Tendon Repair Set-up) EA
4 (Replace Anchorage Protection System) EA
5 (Repair External Tendon Ducts) LF
6 (Replace Tendon) LF
7 (Vacuum Grout Tendon Voids) CF
9 (Install Grout Ports) EA

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0462 20 1 | POST TENSIONING REPAIR, TENDON INSPECTION | LF | T | 1/1/2010 | |
| 0462 20 2 | POST TENSIONING REPAIR, ANCHORAGE INSPECTION | EA | T | 1/1/2010 | |
| 0462 20 4 | POST TENSIONING REPAIR, REPLACE ANCHORAGE PROTECTION SYSTEM | EA | T | 1/1/2010 | |
| 0462 20 5 | POST TENSIONING REPAIR, REPAIR EXTERNAL TENDON DUCTS | LF | T | 1/1/2010 | |
| 0462 20 6 | POST TENSIONING, REPLACE TENDON | LF | T | 1/1/2010 | |
| 0462 20 7 | POST TENSIONING REPAIR, VACUUM GROUT TENDON VOIDS | CF | T | 1/1/2010 | |
| 0462 20 9 | POST TENSIONING REPAIR, INSTALL GROUT PORTS | EA | T | 1/1/2010 | |

## 465- 1- MOVABLE BRIDGE- MECHANICAL EQUIPMENT

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

For new bridge construction only. Intended for furnishing and installing complete mechanical system for bascule bridge. Includes all mechanical equipment and appurtenances (speed reducer and gear train, trunnion assemblies, span locks, couplings, live load shoes, flat & curved tracks, plain journal bearings, spherical bearings, supports and brackets, hydraulic systems, and all other equipment/service) required for a complete mechanical system on new bascule bridges. Clearly define scope of work in plans and specifications.
Contact State Structures Design for boiler plate Specification 465 to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **465- 1-** **MOVABLE BRIDGE- MECHANICAL EQUIPMENT** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0465 1 | MOVABLE BRIDGE - MECHANICAL EQUIPMENT | LS | T | 1/1/2010 | |

## 465- 2-ABB MOVABLE BRIDGE MACHINERY AND CASTINGS- REHAB

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** yes

**Notes**

**Details**

Intended for rehabilitation projects for bascule bridge machinery and castings. For new structures, the complete machinery system is included under 465- 1, LS. Contact C.O. Structures Design for boiler plate 465 Specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

See Details Above

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **465- 2-ABB** **MOVABLE BRIDGE MACHINERY AND CASTINGS- REHAB** **Mixed**

A= Operation
1 (Furnish & Install)
4 (Recondition)
5 (Adjust /Modify)
6 (Remove & Dispose) Note: Contractor takes ownership

7 (Remove & Stockpile/Salvage) Note: DOT/maintaining agency retains ownership
8 (Field Machining)

BB= Equipment
01 (Speed Reducer And Gear Train) LS/LS
04 (Trunnion Assembly) EA
05 (Span Locks) AS
07 (Couplings) EA
08 (Live Load Shoes) LS/LS
10 (Flat Rack, Curved Rack, Flat Track) EA
11 (Hopkins Frame) EA
21 (Plain Journal Bearing) EA
22 (Spherical Bearing) EA
52 (Hydraulic Cylinder) EA
53 (Hydraulic Motor) EA
54 (Hydraulic Power Pack) EA
55 (Temporary Hydraulic System) EA
60 (Other Machinery Components) LS

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0465 2101 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, F&I SPEED REDUCER & GEAR TRAIN | LS | T | 1/1/2010 | |
| 0465 2105 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, F&I SPAN LOCKS | AS | T | 1/1/2010 | |
| 0465 2107 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, F&I COUPLINGS | EA | T | 1/1/2010 | |
| 0465 2108 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, F&I LIVE LOAD SHOES | LS | T | 1/1/2010 | |
| 0465 2110 | MOVABLE BRIDGE MACHINERY & CASTING- BR REHABILITATION, F&I FLAT RACK, CURVED TRACK, FLAT TRACK | EA | T | 1/1/2010 | |
| 0465 2111 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, F&I HOPKINS FRAME | EA | T | 1/1/2010 | |
| 0465 2154 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, F&I HYDRAULIC POWER PACK | EA | T | 1/1/2010 | |
| 0465 2155 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, F&I TEMPORARY HYDRAULIC SYSTEM | EA | T | 1/1/2010 | |
| 0465 2160 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, FURNISH & INSTALL OTHER MACHINERY COMPONENTS | LS | T | 1/1/2010 | |
| 0465 2401 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, SPEED REDUCER & GEAR TRAIN | LS | T | 1/1/2010 | |
| 0465 2404 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, TRUNION ASSEMBLY | EA | T | 1/1/2010 | |
| 0465 2405 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION,SPAN LOCKS | AS | T | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0465 2407 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, COUPLINGS | EA | T | 1/1/2010 |
| 0465 2408 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION,LIVE LOAD SHOES | LS | T | 1/1/2010 |
| 0465 2410 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, FLAT RACK,CURVED RACK, FLAT TRACK | EA | T | 1/1/2010 |
| 0465 2411 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, HOPKINS FRAME | EA | T | 1/1/2010 |
| 0465 2452 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION,HYDRAULIC CYLINDER | EA | T | 1/1/2010 |
| 0465 2453 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, HYDRAULIC MOTOR | EA | T | 1/1/2010 |
| 0465 2454 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, HYDRAULIC POWER PACK | EA | T | 1/1/2010 |
| 0465 2460 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, RECONDITION, OTHER MACHINERY COMPONENTS | LS | T | 1/1/2010 |
| 0465 2508 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, ADUST/MODIFY, LIVE LOAD SHOES | LS | T | 1/1/2010 |
| 0465 2511 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, ADJUST& MODIFY,HOPKINS FRAME | EA | T | 1/1/2010 |
| 0465 2554 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, ADJUST& MODIFY,HYDRAULIC POWER PACK | EA | T | 1/1/2010 |
| 0465 2601 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, REMOVE & DISPOSE, SPEED REDUCER & GEAR TRAIN | LS | T | 1/1/2010 |
| 0465 2605 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, REMOVE & DISPOSE- CONTRACTOR OWNS, SPAN LOCKS | AS | T | 1/1/2010 |
| 0465 2607 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, REMOVE & DISPOSE- CONTRACTOR OWNS, COUPLINGS | EA | T | 1/1/2010 |
| 0465 2608 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, REMOVE & DISPOSE- CONTRACTOR OWNS, LIVE LOAD SHOES | LS | T | 1/1/2010 |
| 0465 2610 | MOVABLE BRIDGE MACHINERY & CASTING- BR REHABILITATION, REMOV & DISPOSE, FLAT RACK/ CURVED TRACK/ FLAT TRACK | EA | T | 1/1/2010 |
| 0465 2611 | MOVABLE BRIDGE MACHINERY & CASTING- REHABILITATION, REMOVE & DISPOSE- CONTRACTOR OWNS, HOPKINS FRAME | EA | T | 1/1/2010 |

| | | | | |
|---|---|---|---|---|
| 0465 2654 | MOVABLE BRIDGE MACHINERY & CASTING-REHABILITATION, REMOVE & DISPOSE-CONTRACTOR OWNS, HYDRAULIC POWER PACK | EA | T | 1/1/2010 |
| 0465 2752 | MOVABLE BRIDGE MACHINERY & CASTING-REHABILITATION, REMOVE & SALVAGE,HYDRAULIC CYLINDER | EA | T | 1/1/2010 |

## 465- 3- AB MOVABLE BRIDGE COUNTERWEIGHT

**Unit** EA; TN; MT **Accuracy** Each; Ton; Metric Ton **PlanQuantity?** no

**Notes**

**Details**

Applies for either rehabilitation or new bridge projects. Intended for work items related to bascule bridge counterweights (balance calculations, balance blocks, steel ballast, transition slabs, sump pumps, bumper blocks). Steel ballast intended for bulk steel counterweight (transition slabs, steel plates). Show location & quantity block in plans. When using "Adjust" item, Tech Spec must clearly define method of measurement: adjustment of each bridge, leaf, or after specific operations.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

See Details Above

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **465- 3- AB** **MOVABLE BRIDGE COUNTERWEIGHT** **EA; TN**

A= Operation
1 (Furnish & Install)
5 (Adjust) EA; for A=5, B=0
9 (Clean) Valid for B=6 only

B= Item
1 (Fiberglass Pocket Cover) EA
2 (Sump Pump) EA
4 (Bumper Block) EA
6 (Pockets) EA

7 (Balance Blocks) EA
9 (Steel Ballast) TN

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0465 3 11 | MOVABLE BRIDGE COUNTERWEITHT, F&I, FIBER GLASS POCKET COVER | EA | T | 1/1/2010 | |
| 0465 3 14 | MOVABLE BRIDGE COUNTERWEITHT, F&I, BUMPER BLOCK | EA | T | 1/1/2010 | |
| 0465 3 16 | MOVABLE BRIDGE COUNTERWEITHT, F&I, POCKETS | EA | T | 1/1/2010 | |
| 0465 3 17 | MOVABLE BRIDGE COUNTERWEITHT, F&I, BALANCE BLOCKS | EA | T | 1/1/2010 | |
| 0465 3 19 | MOVABLE BRIDGE COUNTERWEITHT, F&I, STEEL BALLAST | TN | T | 1/1/2010 | |
| 0465 3 50 | MOVABLE BRIDGE COUNTERWEITHT, ADJUST | EA | T | 1/1/2010 | |
| 0465 3 96 | MOVABLE BRIDGE COUNTERWEITHT, CLEAN, POCKETS | EA | T | 1/1/2010 | |

## 465- 4- MOVABLE BRIDGE SPAN JACKING

**Unit** LS/EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Intended for rehabilitation projects to jack bascule span off trunnion supports. Used in conjunction with trunnion reconditioning or bearing replacement. Tech Spec should include jacking procedure, and require that procedures and calculations be completed by a Florida Licensed Engineer.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **465- 4-** **MOVABLE BRIDGE SPAN JACKING** **LS/EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 465- 20- MOVABLE BRIDGE- PREVENTATIVE MAINTENANCE

**Unit** LS/DA **Accuracy** Lump Sum (Day) **PlanQuantity?** no

**Notes**

**Details**

This item covers the cost of maintaining a movable bridge during construction.

Contact the Movable Bridge Section of the State Structures Design Office prior to use of this item. Specifications may be available.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **465- 20-** **MOVABLE BRIDGE- PREVENTATIVE MAINTENANCE** **LS/DA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0465 20 | MOVABLE BRIDGE- PREVENTATIVE MAINTENANCE & ROUTINE REPAIR | LS | T | 1/1/2010 | |

## 465- 21- MOVABLE BRIDGE OPERATOR

**Unit** DA **Accuracy** Day **PlanQuantity?** no

**Notes**

**Details** This item covers the cost of furnishing a bridge tender during construction.

Contact the Movable Bridge Section of the State Structures Design Office prior to use of this item. Specifications may be available.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **465- 21-** **MOVABLE BRIDGE OPERATOR** **DA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0465 21 | MOVABLE BRIDGE OPERATOR | DA | T | 1/1/2010 | |

## 465- 71- A MOVABLE BRIDGE FUNCTIONAL CHECKOUT

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** Phase A to be used to test first-two leafs of a four leaf bascule, Phase B to be used for the Second-two leafs, and Phase C to be used for the complete bridge. Sometimes Phase C and Phase B are combined for simplicity. This item is required on all new bascule bridges and on all bascule bridge rehabilitation projects where the leaf operation, weight is being affected.
Where phasing is not required, only a single checkout (Phase C) is required.
Contact State Structures Design for boiler plate 465 Specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's 8.7.19

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **465- 71- A** **MOVABLE BRIDGE FUNCTIONAL CHECKOUT** **LS/LS**

A = See detail for Phasing
1 (Phase A) for 1st 2 leaves
2 (Phase B) for 2nd leaves
3 (Phase C) for Complete

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0465 71 1 | MOVEABLE BRIDGE FUNCTIONAL CHECKOUT, PHASE A | LS | T | 1/1/2010 | |
| 0465 71 3 | MOVABLE BRIDGE FUNCTIONAL CHECKOUT, PHASE C | LS | T | 1/1/2010 | |

## 470- 1- TREATED TIMBER, STRUCTURAL

**Unit** MB; M3 **Accuracy** 1/10 Thou Board Measure; 1/10 Cubic Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for the cost of treated structural timber. The quantity of timber to be based on the final width and thickness shown in the plans. When applicable, indicate in the plans the nominal size (2x6) and dressed dimension. Quantity is to be based on the dressed volume. For rough cut or "full sawn" sizes, the nominal size is the finished size and the basis of the quantity. Timber piles paid for under 455- 2-XXA.
The board-foot measure is the unit of volume for measuring lumber. One board-foot measure is a 12-inch long 1-inch-by-12-inch volume. MB is per thousand board-foot measure.

Example calculation:
800' - 12X6 Rough Sawn = 800x12x6/12,000= 4.8 MB
800' - 12X6 Dressed Lumber (Dressed 11 ½ " X 5 ½ ") = 800X11.5X5.5/12,000= 4.2 MB

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Structures Detailing Manual Chapter 12.

**Specifications** Section 470

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 470- 1- TREATED TIMBER, STRUCTURAL MB**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0470 1 | TREATED TIMBER, STRUCTURAL | MB | | 1/1/2010 | |

## 471- 1- A FENDER SYSTEM, PLASTIC MARINE LUMBER

**Unit** MB; M3 **Accuracy** 1/10 Thou Board Measure; 1/10 Cubic Meter **PlanQuantity?** yes

**Notes**

**Details**

to be used for wales and dimensional lumber for fender systems. Plastic piling to be paid separately under Section 455 items.

one board foot= one foot square by one inch thick; convert to thousand board foot for pay item.
Refer to Design Standards and Specifications for additional information.

**Related Items** **Required** 455- 37- a **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 21900 series: 21900, 21910, 21920, 21930

**Specifications** Section 471

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 471- 1- A FENDER SYSTEM, PLASTIC MARINE LUMBER MB**

A= Reinforcement
1 (Reinforced)
2 (non-reinforced)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0471 1 1 | FENDER SYSTEM,PLASTIC MARINE LUMBER,REINFORCED | MB | | 1/1/2010 | |
| 0471 1 2 | FENDER SYSTEM,PLASTIC MARINE LUMBER, NON-REINFORCED | MB | | 1/1/2010 | |

# BOE

## Basis of Estimates

*Chapter 15*

*Items 500 to 599*

State Specifications and Estimates Office
Estimating Systems Support Section

## 504- 1- AA STEEL ROADWAY FLOOR

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details** Intended for steel grating for sidewalks and bridge decks usually on bascule leaves. Show location w/ quantity block in plans. Make deductions in quantities for openings or joints. When concrete filled decks are called for in the plans, no separate payment is made for fill concrete. See Section 504 for Specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 504

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **504- 1- AA** **STEEL ROADWAY FLOOR** **SF**

A =
1 (5" Open)
2 (3" Armored)
5 (5 1/2" Armored)
10 (5" Armored)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0504 1 1 | ROADWAY FLOOR, STEEL, 5" OPEN | SF | | 1/1/2010 | |
| 0504 1 2 | ROADWAY FLOOR, STEEL, 3" ARMORED | SF | | 1/1/2010 | |
| 0504 1 5 | ROADWAY FLOOR, STEEL, 5.5" ARMORED | SF | | 1/1/2010 | |
| 0504 1 10 | ROADWAY FLOOR, STEEL, 5" ARMORED | SF | | 1/1/2010 | |

## 504- 2- SIDEWALK FLOOR, STEEL - REHAB

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details** Intended for rehabilitation projects when steel sidewalks gratings is required without roadway grating. Clearly identify work to be completed including area, type of rehab work,

and acceptance criteria. On new bascule bridge projects, include both sidewalk and roadway grating quantity under 504-1.

Show location w/ quantity block in plans. Make deductions in quantities for openings or joints. When concrete filled decks are called for in the plans, include cost of the concrete fill under this pay item (add pay item note).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 504

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **504- 2-** **SIDEWALK FLOOR, STEEL - REHAB** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0504 2 | SIDEWALK FLOOR, STEEL, REHABILITATION | SF | T | 1/1/2010 | |

## 506- 2- BRIDGE DRAIN PIPE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for payment for drainage pipes located on bridge structure to convey water from deck inlets to ends of bridge or down to ground at pier locations. Include piping that is cast into concrete components in the quantity. Bridge drains paid separately under 506-3. Show location w/ quantity block in plans.

Coordinate Tech Spec with

**Related Items** **Required** 506- 3- **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 506

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **506- 2-** **BRIDGE DRAIN PIPE** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0506 2 | BRIDGE DRAINAGE PIPE | LF | | 1/1/2010 | |

## 506- 3- BRIDGE DRAINS

**Unit** EA **Accuracy** Each **PlanQuantity?** yes

**Notes**

**Details**

Intended for payment for deck inlets located on bridge structure. Bridge piping paid under 506-2. Deck scuppers holes cast into bridge deck should not be paid for under this item unless they consist of a casting. Pay for deck scupper holes under superstructure concrete (add pay item note). Show location w/ quantity block in plans.

**Related Items** **Required** 506- 2- **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications** Section 506

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **506- 3-** **BRIDGE DRAINS** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0506 3 | BRIDGE DRAINS | EA | | 1/1/2010 | |

## 506- 72- POWER CLEAN BRIDGE DOWN DRAIN

**Unit** EA **Accuracy** Each **PlanQuantity?** yes

**Notes**

**Details** Valid for Maintenance Use. Plans or Specifications must detail cleaning requirements including: method(s), permitted chemicals, etc.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **506- 72-** **POWER CLEAN BRIDGE DOWN DRAIN** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0506 72 | BRIDGE POWER CLEAN DOWN DRAIN | EA | | 1/1/2010 | |

## 507- 70- ALUMINUM SIDEWALK FLOOR

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details** Intended for aluminum sidewalks usually on bascule leaves. Show location w/ quantities block in plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description,

materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **507- 70-** **ALUMINUM SIDEWALK FLOOR** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0507 70 | ALUMINUM SIDEWALK FLOOR | SF | T | 1/1/2010 | |

## 508- 1- A MOVABLE BRIDGE ELECTRICAL EQUIPMENT, NEW CONSTRUCTION ONLY

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

For NEW BRIDGE CONSTRUCTION ONLY. Intended for furnishing and installing complete electrical system for bascule bridge.

Includes all electrical equipment and appurtenances (wire, cables, submarine cable assembly, conduits, wiring, wiring devices, light fixtures, motors, controllers, motor control centers, panelboards, relays, control equipment, safety switches, traffic signals, all traffic gates, traffic barriers, Variable Speed Controllers, drive motors, stand-by generator and transfer switch, motor control equipment, air horns, navigation lights, limit switches, system grounding scheme, tender house amenities, and all other apparatus and accessories indicated, specified, or required) required for a complete operating electrical system on new bascule bridges. Clearly define scope of work in plans and specifications.

Contact State Structures Design for boiler plate Specification 508 to be modified as required for project specifics.

For plan detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of

payment are available in the contract documents to clearly define the work to be completed for payment under this item."

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For movable bridges only. Clearly define scope of work in plans and specifications. Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

NEW- FURNISH & INSTALL: Includes complete, new, electrical system for bascule bridge. Includes all electrical equipment and appurtenances (emergency generator, submarine cable, motors, control console, brakes, programmable controller, motor control center, drive system, CCTV system, navigation lights, gates, signals, and all other equipment/service) required for a complete installation on bascule bridges.

EXISTING- ADJUST/MODIFY/REHAB: Includes all electrical system equipment, components, and/or work not paid for separately under other items. May include furnishing/wiring/installation of new or rehab electrical components.

REMOVAL: Clearly identify which items are to be stockpiled or disposed. For stockpiled items, include a location for delivery (define limits of contractor's work) and a contact name.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | sumqrd: Roadway Summary of Quantities Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**T: Plan Details and/or Technical Specifications required**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 508- 1- A** **MOVABLE BRIDGE ELECTRICAL EQUIPMENT, NEW CONSTRUCTION ONLY** **LS/LS**

A= Operation
1 (New- Furnish & Install)
4 (Relocate) *Valid through 6-30-10
5 (Existing- Adjust/Modify/Rehab) *Valid through 6-30-10
6 (Remove & Dispose) Note: Contractor takes ownership *Valid through 6-30-10
7 (Remove & Stockpile/Salvage) Note: DOT/maintaining agency retains ownership *Valid through 6-

30-10

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 1 1 | MOVABLE BRIDGE ELECTRICAL EQUIPMENT, F&I | LS | T | 1/1/2010 | |
| 0508 1 6 | MOVABLE BRIDGE ELECTRICAL EQUIPMENT, REMOVE & DISPOSE CONTRACTOR TAKES OWNERSHIP | LS | T | 1/1/2010 | |

## 508- 2- A MOVABLE BRIDGE GATE

**Unit** AS **Accuracy** Assembly **PlanQuantity?** yes

**Notes**

**Details**

For use on movable bridges only. This item may be used with 508-1 for rehab bridge projects. (DO NOT use on New Bridge Construction.) Clearly define scope of work in plans and specifications. Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

Design Standards shows location. Remaining specs/details are needed.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

FURNISH & INSTALL: Furnish & Install new gates on an existing bascule bridge.

ADJUST/MODIFY/REHAB: Includes all work and materials necessary for rehab of existing gates. Include pay item 508-1 for other electrical system work.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 17890

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 508- 2- A MOVABLE BRIDGE GATE AS**

A= Operation
1 (Furnish & Install)
4 (Relocate)
5 (Adjust/Modify/Rehab)
6 (Remove & Dispose) Note: Contractor takes ownership
7 (Remove & Stockpile/Salvage) Note: DOT/maintaining agency retains ownership

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 2 1 | MOVABLE BRIDGE GATE, F&I | AS | T | 1/1/2010 | |
| 0508 2 6 | MOVABLE BRIDGE GATE, REMOVE & DISPOSE | AS | T | 1/1/2010 | |
| 0508 2 7 | MOVABLE BRIDGE GATE, REMOVE & STOCKPILE/SALVAGE | AS | T | 1/1/2010 | |

## 508- 3- A MOVABLE BRIDGE SIGNAL

**Unit** AS **Accuracy** Assembly **PlanQuantity?** yes

**Notes**

**Details**

For use on movable bridges only. This item may be used with 508-1 for rehab bridge projects. (DO NOT use on New Bridge Construction.)

Clearly define scope of work in plans and specifications. Contact State Structures Design for boiler plate specification to be modified as required for project specifics. Coordinate with details shown on Design Standard.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

FURNISH & INSTALL: Furnish & Install new signals on an existing bascule bridge. Includes the mast arm, monotube, or other supports, as shown in the standards or plans.

ADJUST/MODIFY/REHAB: Includes all work and materials necessary for rehab of existing signals. Include pay item 508-1 for other electrical system work.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 17890

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 3- A** **MOVABLE BRIDGE SIGNAL** **AS**

A= Operation
1 (Furnish & Install)
4 (Relocate)
5 (Adjust/Modify/Rehab)
6 (Remove & Dispose) Note: Contractor takes ownership
7 (Remove & Stockpile/Salvage) Note: DOT/maintaining agency retains ownership

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 3 1 | MOVABLE BRIDGE - SIGNAL, F&I | AS | | 1/1/2010 | |
| 0508 3 5 | MOVABLE BRIDGE - SIGNAL, ADJUST / MODIFY / REHAB | AS | T | 1/1/2010 | |
| 0508 3 6 | MOVABLE BRIDGE - SIGNAL, REMOVE & DISPOSE | AS | T | 1/1/2010 | |
| 0508 3 7 | MOVABLE BRIDGE - SIGNAL, REMOVE & STOCKPILE/SALVAGE | AS | T | 1/1/2010 | |

## 508- 4- MOVABLE BRIDGE ELECTRICAL EQUIPMENT, REHABILITATION PROJECTS ONLY

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

Intended for REHABILITATION PROJECTS for bascule bridge electrical systems. (For new structures, the complete electrical system is included under 508- 1, LS.)

Contact Central Office Structures Design for boiler plate 508 Specification to be modified as required for project specifics.

As needed, the removal, repair, replacement or rehabilitation of specific components will be included, as defined in the project specifications.

For Plan Detail/Tech Spec Items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 4-** **MOVABLE BRIDGE ELECTRICAL EQUIPMENT, REHABILITATION PROJECTS ONLY** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 4 | MOVABLE BRIDGE ELECTRICAL EQUIPMENT, REHAB | LS | T | 1/1/2010 | |

## 508- 72- A MOVABLE BRIDGE EMERGENCY GENERATOR

**Unit** AS **Accuracy** Assembly **PlanQuantity?** yes

**Notes**

**Details**

Includes standby generator system (generator, transfer switch, control panel, etc.) for bascule bridge rehabilitation projects only.
For new structures, emergency generator is included under 508- 1-. Clearly define work in plans and specifications.
Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 72- A** **MOVABLE BRIDGE EMERGENCY GENERATOR** **AS**

A = 1 (Furnish & Install)
3 (Install)
4 (Remove)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 72 1 | MOVABLE BRIDGE EMERGENCY GENERATOR ,F&I | AS | T | 1/1/2010 | |
| 0508 72 4 | MOVABLE BRIDGE EMERGENCY GENERATOR , REMOVE | AS | T | 1/1/2010 | |

## 508- 73- A SUBMARINE CABLE ASSEMBLY

**Unit** LS/LF; LS/M1 **Accuracy** Lump Sum (Linear Foot); Lump Sum (Meter) **PlanQuantity?** yes

**Notes**

**Details**

Intended for sub-aqueous cable. For bascule bridge rehabilitation projects only or fixed new bridge projects.
For new bascule bridge projects, submarine cable is included under 508- 1-. Clearly define work in plans and specifications. Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 73- A** **SUBMARINE CABLE ASSEMBLY** **LS/LF**

A =
1 (Furnish & Install)
3 (Install)
4 (Remove)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 73 1 | SUBMARINE CABLE ASSEMBLY, FURNISH & INSTALL | LS | T | 1/1/2010 | |
| 0508 73 3 | SUBMARINE CABLE ASSEMBLY, INSTALL | LS | T | 1/1/2010 | |
| 0508 73 4 | SUBMARINE CABLE ASSEMBLY, REMOVE | LS | T | 1/1/2010 | |

## 508- 76- A MOVABLE BRIDGE REHAB- SPAN MOTORS AND CONTROLLERS

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

Includes span drive motors and speed controllers for bascule bridge rehabilitation only. For new structures, span motors are included under 508- 1-. Clearly define work in plans and specifications. Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 76- A** **MOVABLE BRIDGE REHAB- SPAN MOTORS AND** **LS/LS**

**CONTROLLERS**

A =
1 (Furnish & Install)
3 (Install)
4 (Remove)
5 (Recondition)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 76 1 | MOVABLE BRIDGE - REHAB, SPAN MOTORS & CONTROLLERS , F&I | LS | T | 1/1/2010 | |
| 0508 76 4 | MOVABLE BRIDGE - REHAB, SPAN MOTORS & CONTROLLERS , REMOVE | LS | T | 1/1/2010 | |

## 508- 77- A MOVABLE BRIDGE REHAB- PROGRAMMABLE LOGIC CONTROLLER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Includes programmable logic controllers (controllers, I/O racks, power supplies, programming) for bascule bridge rehabilitation only. For new structures, logic controllers are included under 508- 1-. Clearly define work in plans and specifications. Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 77- A** **MOVABLE BRIDGE REHAB- PROGRAMMABLE LOGIC CONTROLLER** **EA**

A = 1 (Furnish & Install)
3 (Install)
4 (Remove)
5 (Programming)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 77 1 | MOVABLE BRIDGE-REHAB,PROGRAMMABLE LOGIC CONTROLLER F&I | EA | T | 1/1/2010 | |
| 0508 77 4 | MOVABLE BRIDGE-REHAB,PROGRAMMABLE LOGIC CONTROLLER REMOVE | EA | T | 1/1/2010 | |
| 0508 77 5 | MOVABLE BRIDGE-REHAB,PROGRAMMABLE LOGIC CONTROLLER PROGRAMMING | EA | T | 1/1/2010 | |

## 508- 78- A MOVABLE BRIDGE REHAB- LIMIT SWITCHES AND TRANSDUCERS

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

Includes limit switches and transducers for bascule bridge rehabilitation only. For new structures, limit switches and transducers are included under 508- 1-. Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 78- A** **MOVABLE BRIDGE REHAB- LIMIT SWITCHES AND TRANSDUCERS** **LS/LS**

A =
1 (Furnish & Install)
3 (Install)
4 (Remove)
5 (Programming)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 78 1 | MOVABLE BRIDGE-REHAB, LIMIT SWITCHES & TRANSDUCERS F&I | LS | T | 1/1/2010 | |
| 0508 78 4 | MOVABLE BRIDGE-REHAB, LIMIT SWITCHES & TRANSDUCERS REMOVE | LS | T | 1/1/2010 | |

## 508- 79- A MOVABLE BRIDGE REHAB- CONTROL CONSOLE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Includes control console and associated equipment (switches, indicating lights, relays, etc.) for bascule bridge rehabilitation only. For new structures, control console is included under 508- 1-. Clearly define work in plans and specifications. Contact State Structures Design Office for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 79- A** **MOVABLE BRIDGE REHAB- CONTROL CONSOLE** **EA**

A =
1 (Furnish & Install)
3 (Install)
4 (Remove)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 79 1 | MOVABLE BRIDGE-REHAB,CONTROL CONSOLE, F&I | EA | T | 1/1/2010 | |
| 0508 79 4 | MOVABLE BRIDGE-REHAB,CONTROL CONSOLE, REMOVE | EA | T | 1/1/2010 | |

## 508- 80- A MOVABLE BRIDGE REHAB- BRAKE SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Includes brake systems (brake shoes, brake drums, brake operators) for bascule bridge rehabilitation only. For new structures, brake system is included under 508- 1-. Clearly define work in plans and specifications.
Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards Specifications** SDG's Chapter 8

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 80- A** **MOVABLE BRIDGE REHAB- BRAKE SYSTEM** **EA**

A =
1 (Furnish & Install)
3 (Install)

4 (Remove)
5 (Recondition)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 80 1 | MOVABLE BRIDGE-REHAB, BRAKE SYSTEM, F&I | EA | T | 1/1/2010 | |
| 0508 80 4 | MOVABLE BRIDGE-REHAB, BRAKE SYSTEM, REMOVE | EA | T | 1/1/2010 | |

## 508- 82- A MOVABLE BRIDGE REHAB- CONTROL PANEL / MOTOR CONTROLLER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Includes motor control center and starters for bascule bridge rehabilitation only. For new structures, control panel or motor controller is included under 508- 1-. Clearly define work in plans and specifications.
Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 82- A** **MOVABLE BRIDGE REHAB- CONTROL PANEL / MOTOR CONTROLLER** **EA**

A = Operation
1 (Furnish & Install)
3 (Install)
4 (Recondition)

5 (Replace)*

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 82 1 | MOVABLE BRIDGE-REHAB, CONTROL PANEL - MOTOR CONTROLLER, F&I | EA | T | 1/1/2010 | |
| 0508 82 5 | MOVABLE BRIDGE-REHAB, CONTROL PANEL - MOTOR CONTROLLER, REPLACE | EA | T | 1/1/2010 | |

## 508- 83-ABB MOVABLE BRIDGE REHAB- INTEGRATED DRIVE SYSTEM

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

Includes drive systems (motor(s), variable speed drive, shop testing) for bascule bridge rehabilitation only. For new structures, integrated drive system is included under 508- 1-. Contact State Structures Design for boiler plate specification to be modified as required for project specifics.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** SDG's Chapter 8

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **508- 83-ABB** **MOVABLE BRIDGE REHAB- INTEGRATED DRIVE SYSTEM** **AS**

A = Operation
1 (Furnish & Install)
2 (Replace)
3 (Recondition)
4 (Repair)

BB = Drive Type

01 ( 25 kW Or Less)
02 ( 26 - 40 kW)
03 ( 41 - 60 kW)
04 ( 61 - 80 kW)
05 ( 81 - 115 kW)
06 (116 - 155 kW)
07 (156 - 190 kW)
08 (191 Or Larger)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0508 83101 | MOVABLE BRIDGE INTEGRATED DRIVE SYS, F&I, 25KW OR LESS | AS | T | 1/1/2010 | |
| 0508 83107 | MOVABLE BRIDGE-REHAB, INTREGRATED DRIVE SYSTEM, F&I 156 - 190 KW | AS | T | 1/1/2010 | |

## 510- 1- A NAVIGATION LIGHTS- FIXED BRIDGE

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** yes/no

**Notes**

**Details**

LS System: Includes all work related to the navigation lights and accessories for fixed bridges, including the fender and channel lights, wiring, conduit, wiring devices, transformers, enclosures, grounding system, controls, and protective devices, as detailed in the specs and design standard index. (No separate payment for conduit and pull boxes.) The designer should ensure that all details are complete, to correspond to spec references. Note: For dual bridges, use one system; pay item may be entered with either bridge.

Repair/Rehab, EA light: Tech Spec and Plan Details are required to detail location and work to be completed. Measurement and payment will be per light. (If the entire system of lights is to be repaired/rehabilitated, use the LS system pay item.)

For bascule bridges, navigation lights are included under 508-1.

DOCUMENTATION
LUMP SUM: No calculations required unless item is to be adjusted. All calculations and documentation of adjustments, in accordance with the Specifications, are required.
EACH: Final quantity must be recorded in space provided on summary sheet in the plans. All changes must be shown on final plan sheets.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

See Details Above

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

see detail

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS
Index No. 21220

**Specifications** Section 510

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **510- 1- A** **NAVIGATION LIGHTS- FIXED BRIDGE** **Mixed**

A =
Blank (System) LS/LS
4 (Repair/Rehab light) EA, see details above

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0510 1 | NAVIGATION LIGHTS- FIXED BRIDGE, SYSTEM | LS | T | 1/1/2010 | |
| 0510 1 4 | NAVIGATION LIGHTS- FIXED BRIDGE, REPAIR/REHAB | EA | T | 1/1/2010 | |

## 512- 1- A MOVABLE BRIDGE- CONTROL HOUSE

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** Intended for the complete cost of control house for bascule bridges. Include cost of foundation under separate pay items (piling, shaft, etc.) Contact State Structures Design for boiler plate specification to be modified as required for project specifics. Clearly show limits in plans for payment purposes. Include complete bar lists for control house in the plans, Including cost of reinforcing steel for walls and floors.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **512- 1- A** **MOVABLE BRIDGE- CONTROL HOUSE** **LS/LS**

A =
1 (Renovation)
Blank (New)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0512 1 | MOVABLE BRIDGE-CONTROL HOUSE, NEW | LS | T | 1/1/2010 | |
| 0512 1 1 | MOVABLE BRIDGE-CONTROL HOUSE, RENOVATE | LS | T | 1/1/2010 | |

## 512- 71- A MOVABLE BRIDGE PLUMBING SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **512- 71- A** **MOVABLE BRIDGE PLUMBING SYSTEM** **EA**

A = Operation
1 (Furnish & Install)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0512 71 1 | MOVABLE BRIDGE PLUMBING SYSTEM, FURNISH & INSTALL | EA | T | 1/1/2010 | |

## 514- 71- A FILTER FABRIC, PLASTIC

**Unit** SY; M2 **Accuracy** Square Yard; Square **PlanQuantity?** no

Meter

**Notes**

**Details**

Intended for Subsurface Drainage or Stabilization applications, as detailed in Section 514 and 985 of Specifications.

Effective 1/2011 lettings: DO NOT USE pay item for French Drain applications, per design standard and specification change. French Drain item includes payment for filter fabric.

Geotextile fabrics are divided into the following three main classes:
1. Drainage- under all rubble riprap, including cyclopean stone and under gabions; wrapped around drains, pipe joints, and edge-drains; filter behind walls, etc.
2. Erosion Control- silt fence, staked silt barrier, plastic erosion mat.
3. Stabilization- separator between embankment and soft subsoil, reinforcement and pipe bedding.

NOTE: When this item is incidental to other work, no separate payment is made for filter fabric.

Refer to specifications and/or design standards:
Ditch Pavement, Section 524: no separate payment for filter fabric

**Related Items** **Required** **Recommended** 514-72 for impermeable liner

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 199

**Specifications** Section 514

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **514- 71- A** **FILTER FABRIC, PLASTIC** **SY**

A =
1 (Subsurface)
2 (Stabilization)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0514 71 1 | PLASTIC FILTER FABRIC, SUBSURFACE | SY | | 1/1/2010 | |
| 0514 71 2 | PLASTIC FILTER FABRIC, STABILIZATION | SY | | 1/1/2010 | |

## 514- 72- LINER IMPERMEABLE PVC

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended** 514-71 for "filter" fabric

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **514- 72-** **LINER IMPERMEABLE PVC** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0514 72 | LINER IMPERMEABLE PVC | SY | T | 1/1/2010 | |

## 514- 73- GEOSYNTHETIC CLAY LINER

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Contact Larry Jones, State Geotechnical Engineer**

**Details** Contact the State Geotechnical Engineer prior to using this item.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **514- 73-** **GEOSYNTHETIC CLAY LINER** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0514 73 | GEOSYNTHETIC CLAY LINER | SY | T | 1/1/2010 | |

## 515- 1- A PIPE HANDRAIL- GUIDERAIL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Effective with the July 2011 letting, valid drop-off height changed from 30" to 60". Refer to standards for additional information.**

**Details**

To be used as detailed on Design Standards Index 870 (aluminum) or 880 (steel). Two pipe handrail is generally used in locations where drop-off is between 10" and 60". Additional applications may include "steering" pedestrians next to a sidewalk or out of a parking lot (with or without drop-off).

For use next to drop-off greater then 60", refer to Index 800 series and pay items 460-70 or 515-2.
Not valid for use on bridge.

When PVC guiderail is used, complete specifications are needed; consider weather, UV requirements, etc when specifying material requirements.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 870 (aluminum) or 880 (steel) only

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **515- 1- A** **PIPE HANDRAIL- GUIDERAIL** **LF**

A =
1 (Steel) per Index 880
2 (Aluminum) per Index 870
5 (PVC) see BOE detail

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0515 1 1 | PIPE HANDRAIL - GUIDERAIL, STEEL | LF | | 1/1/2010 | |
| 0515 1 2 | PIPE HANDRAIL - GUIDERAIL, ALUMINUM | LF | | 1/1/2010 | |
| 0515 1 5 | PIPE HANDRAIL- GUIDERAIL, PVC | LF | T | 1/1/2010 | |

## 515- 2-ABB PEDESTRIAN/BICYCLE RAILING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Effective with the July 2011 letting, valid drop-off height changed from 30" to 60". Refer to standards for additional information.**

**Details**

To be used for pedestrian railing next to drop-offs greater than 60". Use in accordance with the Index 850 and 860 series.

These specific rails replace the current two rail system, and are intended to be used when there is a drop-off next to a pedestrian or bicycle facility which must be protected. These rails are not intended for use on top of traffic barriers or where motor vehicle containment is required.

For drop-off locations less than 60", consider item 515- 1. For other railings, refer to Index series 800 and pay item 460- 70-xxa.

Special Materials: Full material specifications will be required. Ensure that material requirements address UV issues, strength, etc.

Non-standard type/height to be used only when existing design standards do not apply. For minor deviations from standards, note changes in the plans with pay item corresponding to applicable standard & height. Ensure that smaller railing heights are not a climbing issue.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |
| **References** | **PPM Chapter** Vol 1, Section 8.8<br>**Trns·port**<br>**Other Standards** Index No. 850, 851, 852, 860, 861, 862<br>**Specifications**<br>**T: Selected Items may require Plan Details and/or Technical Specifications**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **515- 2-ABB** **PEDESTRIAN/BICYCLE RAILING** **LF**

A = Required Material Types
1 (Non Specified Material)
2 (Steel Only)
3 (Aluminum Only)
4 (Special Materials) full material specifications needed

BB = Rail Type
01 (42” Picket Railing)
02 (54” Picket Railing)
03 (Non-standard Height) see detail requirements above

Additional types available July 2011 letting and later:
11 (42" Type 1)
12 (42" Type 2)
13 (42" Type 3)
14 (42" Type 4)
15 (42" Type 5)
19 (42" Custom Panel)
21 (54" Type 1)
22 (54" Type 2)
23 (54" Type 3)
24 (54" Type 4)
25 (54" Type 5)
29 (54" Custom Panel)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0515 2101 | PEDESTRIAN, BICYCLE RAILING, NON SPECIFIED,42" PICKET RAIL | LF | | 1/1/2010 | |
| 0515 2102 | PEDESTRIAN, BICYCLE RAILING, NON SPECIFIED,54" PICKET RAIL | LF | | 1/1/2010 | |
| 0515 2201 | PEDESTRIAN, BICYCLE RAILING, STEEL ONLY,42" PICKET RAIL | LF | | 1/1/2010 | |
| 0515 2202 | PEDESTRIAN / BICYCLE RAILING, STEEL ONLY, 54" PICKET RAIL | LF | | 1/1/2010 | |
| 0515 2301 | PEDESTRIAN, BICYCLE RAILING, ALUMINUM ONLY,42" PICKET RAIL | LF | | 1/1/2010 | |
| 0515 2302 | PEDESTRIAN, BICYCLE RAILING, ALUMINUM ONLY,54" PICKET RAIL | LF | | 1/1/2010 | |
| 0515 2303 | PEDESTRIAN, BICYCLE RAILING, ALUMINUM ONLY, SPECIAL | LF | T | 1/1/2010 | |

## 515- 3- A Handrail

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?**

**Notes**

**Details**

DO NOT USE WITH 515-1 or 515-2.
Handrails shown on Index Nos. 850-880 include the handrail with the picket or guiderail installation.

This item includes only the ADA handrail. Plan details or tech specs may refer to Index 850-880 for handrail materials and/or installation. Intended for retrofit applications to add ADA handrail to existing railing or guiderail.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct. 515- 3- A Handrail LF**

A= Material
1 (Steel)
2 (Aluminum)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| **519- 78-** | **BOLLARDS** |
|---|---|

**Unit** EA **Accuracy** Each **PlanQuantity?** yes

**Notes**

**Details**

Intended for posts placed at the ends of pedestrian or special-use facilities. Space/locate as necessary to restrict certain vehicles, while allowing others.

Tech Spec should indicate that this is a plan quantity item. Details to consider include: materials (concrete, wood, metal, other), installation methods and/or construction requirements. Materials spec to address UV, strength, and/or other applicable issues.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Normally requires SHOP DRAWINGS

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **519- 78-** **BOLLARDS** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0519 78 | BOLLARDS | EA | T | 1/1/2010 | |

## 520- 1- AA CONCRETE CURB AND GUTTER

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

Includes construction of concrete curb and/or curb and gutter, and all forming, contraction joint forming, expansion joint construction, steel reinforcement, finishing and backfilling and compaction. Deduct inlet top lengths as shown in the standards from the length of curb and gutter. Length to be measure along the face of the curb. Cost of asphalt curb pad, and additional curb thickness required, to be included in the cost of curb and gutter.

Special Type: To be used for any curb & gutter, other than "Type E" or "Type F", as shown in the design standards or plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-02: Curb/Gutter Calculations and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 300

**Specifications** Section 520

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **520- 1- AA** **CONCRETE CURB AND GUTTER** **LF**

AA =
7 (Type E)
8 (Special) see BOE detail
10 (Type F)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0520 1 7 | CONCRETE CURB & GUTTER, TYPE E | LF | | 1/1/2010 | |
| 0520 1 8 | CONCRETE CURB & GUTTER, SPECIAL | LF | | 1/1/2010 | |
| 0520 1 10 | CONCRETE CURB & GUTTER, TYPE F | LF | | 1/1/2010 | |

## 520- 2- AA CONCRETE CURB

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

For use next to concrete or flexible pavement. Per specification, asphalt curb pad will be included in unit price, when detailed in the plans.

Per the standard, joints are required between curb and concrete pavement. Per the spec, "Joint materials shall be included in the Contract unit price for the item in which it is used." (No separate payment for joint.)

SPECIAL: Do not use SPECIAL for Types A, B, or D. Small changes to Index 300 should be noted in the plans and paid under the applicable type. Special may be used when the existing standards are not applicable; full details are required in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-02: Curb/Gutter Calculations and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 300

**Specifications** Section 520

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **520- 2- AA** **CONCRETE CURB** **LF**

AA =
1 (Type A)
2 (Type B)
4 (Type D)
8 (Type RA)
9 (Special)*

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0520 2 1 | CONCRETE CURB, TYPE A | LF | | 1/1/2010 | |
| 0520 2 2 | CONCRETE CURB, TYPE B | LF | | 1/1/2010 | |
| 0520 2 4 | CONCRETE CURB, TYPE D | LF | | 1/1/2010 | |
| 0520 2 8 | CONCRETE CURB, TYPE RA | LF | | 1/1/2010 | |
| 0520 2 9 | CONCRETE CURB, SPECIAL | LF | T | 1/1/2010 | |

## 520- 3- CONCRETE VALLEY GUTTER

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-02: Curb/Gutter Calculations and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 300

**Specifications** Section 520

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 520- 3- CONCRETE VALLEY GUTTER LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0520 3 | VALLEY GUTTER- CONCRETE | LF | | 1/1/2010 | |

## 520- 5- AB CONCRETE TRAFFIC SEPARATOR

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

Includes construction of traffic separator in 4, 6, and 8.5' (1.2, 1.8, and 2.6 meter) widths. 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 Instructions for Structures Related Design Standards.

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

**Related Items** **Required** **Recommended** 520- 70 (2520- 70)

**Design Forms and Documentation**

COMP 700-050-02: Curb/Gutter Calculations and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 300, 302, 212, 213

**Specifications** Section 520

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 520- 5- AB** **CONCRETE TRAFFIC SEPARATOR** **LF**

A =
1 (Type I)
2 (Type II)
4 (Type IV)
5 (Type V)

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

**Notes** Valid widths based on current design standards. All other widths use 520-70 item.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0520 5 11 | TRAFFIC SEPARATOR CONCRETE-TYPE I, 4' WIDE | LF | | 1/1/2010 | |
| 0520 5 12 | TRAFFIC SEPARATOR CONCRETE-TYPE I, 6' WIDE | LF | | 1/1/2010 | |
| 0520 5 16 | TRAFFIC SEPARATOR CONCRETE- TYPE I, 8.5' WIDE | LF | | 1/1/2010 | |
| 0520 5 21 | TRAFFIC SEPARATOR - CONCRETE, TYPE II, 4' WIDE | LF | | 1/1/2010 | |
| 0520 5 22 | TRAFFIC SEPARATOR - CONCRETE, TYPE II, 6' WIDE | LF | | 1/1/2010 | |
| 0520 5 41 | TRAFFIC SEPARATOR CONCRETE- TYPE IV, 4' WIDE | LF | | 1/1/2010 | |
| 0520 5 42 | TRAFFIC SEPARATOR CONCRETE- TYPE IV, 6' WIDE | LF | | 1/1/2010 | |
| 0520 5 46 | TRAFFIC SEPARATOR CONCRETE- TYPE IV, 8.5' WIDE | LF | | 1/1/2010 | |
| 0520 5 51 | TRAF SEP CONC, TYPE V, 4' WIDE | LF | | 1/1/2010 | |

## 520- 6- SHOULDER GUTTER, CONCRETE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Deduct inlet top lengths as shown in the standards from the length of curb and gutter. For Type S, length to be measured along the face of the curb.

When spillway is needed, as shown on Index 284, include payment for spillway in shoulder gutter. Add the length of the spillway to the shoulder gutter quantity for payment.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-02: Curb/Gutter Calculations and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 220, 284, 300

**Specifications** Section 520

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 520- 6- SHOULDER GUTTER, CONCRETE LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0520 6 | SHOULDER GUTTER- CONCRETE | LF | | 1/1/2010 | |

## 520- 7- A GRANITE CURB

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Measured by Plan Quantity.

Tech Specs required to detail materials, construction/placement, as well as measurement and payment. Tech specs should indicate that damage due to contractors operations will be repaired/replaced at no additional cost to the department.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-02: Curb/Gutter Calculations and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **520- 7- A** **GRANITE CURB** **LF**

A= Operation
1 (Furnish & Install)
2 (Reset)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0520 7 1 | GRANITE CURB, FURNISH & INSTALL | LF | | 1/1/2010 | |
| 0520 7 2 | GRANITE CURB, RESET | LF | | 1/1/2010 | |

## 520- 70- CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Includes construction of traffic separator in variable width, as well as non-standard widths. Refer to Plans Preparation Manual for proper use. When used on bridges, refer to Instructions for Structures Related Design Standards.

Use item 520-5 for standard constant width separator, paid per length.

Plan Detail requirement: Show the limits of the special/variable width separator. Tabulate the area, by location, in the plans. This item will be paid per plan quantity.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 302

**Specifications** Section 520

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **520- 70-** **CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH** **SY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0520 70 | CONCRETE TRAFFIC SEPARATOR, SPECIAL-VARIABLE WIDTH | SY | T | 1/1/2010 | |

## 521- 1- A MEDIAN CONCRETE BARRIER WALL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Median Concrete Barrier Wall is to be used when calling for concrete barrier wall that is to be located in a median (double face or full wall barrier); see pay item 521- 72- (2521- 72- ) for shoulder wall. Consists of construction of plain or reinforced barrier wall, as shown in the design standards. The contractor may request approval for precast construction in lieu of cast-in-place.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other** Normally requires SHOP DRAWINGS

**Standards** Index No. 217, 410, 415

**Specifications** Section 521

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **521- 1- A** **MEDIAN CONCRETE BARRIER WALL** **LF**

A =
Blank (Cast In Place)
1 (Precast)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0521 1 | MEDIAN CONCRETE BARRIER WALL | LF | | 1/1/2010 | |
| 0521 1 1 | MEDIAN BARRIER WALL CONC, PRECAST | LF | | 1/1/2010 | |

## 521- 5- A CONCRETE TRAFFIC RAILING- BRIDGE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details**

Items to be used in accordance with Standard Indexes. Include barriers located on approach slabs in this item.

If any modification is made to a standard barrier, the "Special" pay item should be used along with complete plan details. Details for any modified/non-standard barrier must be submitted to the Structures Design Office for approval, due to crash testing requirements.

Standard Indexes:
Index 420 - 32” F-Shape
Index 425: 42” F-Shape
Index 421: 32” F-Shape Median, Double Face
Index 423: 32” Vertical Face
Index 422: 42” Vertical Face
Index 424: Corral With Curb
Index 424: Corral W/O Curb
Index 480 thru Index 483: Retrofit-Vertical Face
Index 5210: F–Shaped with Sound Barrier Wall, 8’Ht.

REPAIR EXISTING: The repair pay item should only be used for maintenance/operations contracts, where the type of barrier and/or repair details are provided in the plans or specifications. Ensure that complete details are provided for materials, repair requirements, measurement and payment.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

| | |
|---|---|
| **PPM Chapter** | Vol 1, Ch 2 |
| **Trns·port** | |
| **Other** | SDG 6.7 |
| **Standards** | See detail for index numbers 420, 421, 422, 423, 424, 425, 480, 481, 482, 483, 5210 |
| **Specifications** | Section 521 |
| **Prep & Doc Manual Chapter(s)** | 6, 7, 13 |

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct. 521- 5- A** **CONCRETE TRAFFIC RAILING- BRIDGE** **LF**

AA =
1 (32” F-Shape)
2 (42” F-Shape)
3 (32” F-Shape Median, Double Face)
4 (32” Vertical Face)
5 (42” Vertical Face)
6 (Corral With Curb)

7 (Corral W/O Curb)
8 (Retrofit-Vertical Face)
9 (Special Design) see BOE Detail above
10 (Repair Existing Railing) see BOE Detail above
20 (F–Shaped with Sound Barrier Wall 8'Ht.)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0521 5 1 | CONCRETE TRAFFIC RAILING, BRIDGE 32" F - SHAPE | LF | | 1/1/2010 | |
| 0521 5 2 | CONCRETE TRAFFIC RAILING, BRIDGE 42" F - SHAPE | LF | | 1/1/2010 | |
| 0521 5 3 | CONCRETE TRAFFIC RAILING, BRIDGE, 32" F - SHAPE, MEDIAN, DOUBLE FACE | LF | | 1/1/2010 | |
| 0521 5 4 | CONCRETE TRAFFIC RAILING, BRIDGE, 32" VERTICAL FACE | LF | | 1/1/2010 | |
| 0521 5 5 | CONCRETE TRAFFIC RAILING, BRIDGE, 42" VERTICAL FACE | LF | | 1/1/2010 | |
| 0521 5 6 | CONCRETE TRAFFIC RAILING- BRIDGE, CORRAL W/CURB | LF | | 1/1/2010 | |
| 0521 5 7 | CONCRETE TRAFFIC RAILING, BRIDGE, CORRAL WITHOUT CURB | LF | | 1/1/2010 | |
| 0521 5 8 | CONCRETE TRAFFIC RAILING, BRIDGE,RETROFIT-VERTICAL FACE | LF | | 1/1/2010 | |
| 0521 5 9 | CONCRETE TRAFRIC RAILING, BRIDGE, SPECIAL DESIGN | LF | T | 1/1/2010 | |
| 0521 5 10 | CONCRETE TRAFRIC RAILING, BRIDGE, REPAIR EXISTING | LF | T | 1/1/2010 | |
| 0521 5 20 | CONCRETE TRAFFIC RAILING-BRIDGE, F SHAPED WITH SOUND BARRIER WALL 8' HEIGHT | LF | | 1/1/2010 | |

## 521- 6- A CONCRETE PARAPET

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes** **PROPOSED: Items valid through 12-31-10. Replaced by 521-6-AB. Structures and/or Estimates Bulletin pending with actual effective dates.**

**Details** Intended for pedestrian/ bicycle railings located on bridge or on retailing walls. Includes cost of concrete portion of the parapet (including cost of sidewalk as applicable). Railing mounted on the top of parapet are to be paid for separately.
Show location w/ quantity block on bridge superstructure sheets and wall sheets as required.
When Index 800, Pedestrian Bicycle Railing is utilized, Pay Item 460-70-3 also Required

Special Design: If significant modifications are made to this design standard, the "Special" pay item should be used along with complete plan details and/or tech specs.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 820

**Specifications** Section 521

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct. 521- 6- A CONCRETE PARAPET LF**

A = Type
1 (Pedestrian/Bicycle)
2 (Special Design) see BOE detail
3 (Retaining Wall System Mounted w/ Sidewalk)
4 (Retaining Wall System Mounted w/ sidewalk and 8' Sound Wall)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0521 6 1 | CONCRETE PARAPET, PEDEST/BICYCLE | LF | | 1/1/2010 | |
| 0521 6 2 | CONCRETE PARAPET, SPECIAL | LF | | 1/1/2010 | |
| 0521 6 3 | CONCRETE PARAPET, RETAINING WALL MOUNTED WITH SIDEWALK | LF | | 1/1/2010 | |

## 521- 6- AB CONCRETE PARAPET

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**PROPOSED: New items effective 1-1-11; replaces 521- 6- A. Structures and/or Estimates Bulletin pending with actual effective dates.**

**Details**

Intended for pedestrian/ bicycle railings located on bridge or on retailing walls. Includes cost of concrete portion of the parapet (including cost of sidewalk as applicable). Railing mounted on the top of 27" parapets are to be paid for separately.
Show location w/ quantity block on bridge superstructure sheets and wall sheets as required.

When Index 800, 27" Pedestrian Bicycle Railing is utilized, Pay Item 460-70-3 also Require

*Index Number 5300 valid through 6/2011. Index Number 6130 effective 7/2011.

Special Design: If significant modifications are made to the design standards, the "Special" pay item should be used along with complete plan details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 820, 825, 826, 5212, and 5300/6130*.

**Specifications**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct. 521- 6- AB CONCRETE PARAPET LF**

A = Type
1 (Pedestrian/Bicycle)
2 (Special Design) see BOE detail; B=0
3 (Retaining Wall System Mounted w/ Sidewalk) Index 5300/6130*
4 (Retaining Wall System Mounted w/ sidewalk and 8' Sound Wall) Index 5300/5212*

B= Height
1 (27") Index 820, with metal railing, paid under 460-70-3
2 (42") Index 825
3 (54") Index 826

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 521- 7- AA CONCRETE TRAFFIC RAILING BARRIER- RETAINING WALL SYSTEM

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes** **Valid through 12-31-2010; replaced by 521-72-AA.**

**Details** Intended for 8' retaining wall mounted sound barrier with junction slab.
Show location with quantity block on wall sheets

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 5210

**Specifications** Section 521

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **521- 7- AA** **CONCRETE TRAFFIC RAILING BARRIER- RETAINING WALL SYSTEM** **LF**

A =
1 (F Shape with Sound Barrier Wall 8' Ht.)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0521 7 1 | CONCRETE TRAFFIC RAILING BARRIER-RETAINING WALL SYSTEM, F SHAPE WITH SOUND BARRIER WALL, 8' HEIGHT | LF | | 1/1/2010 | |

**521- 8- AA** **CONCRETE TRAFFIC RAILING BARRIER- WITH JUNCTION SLAB**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes** **November 2010: Pay Item descriptions updated to correspond to Standard Index terminology**

**Details** Item to be used in accordance with Standard Indexes. Show location with quantity block in wall plans.
Sometimes used with item 521- 5- A for traffic railing systems that extend onto bridge.

Note description change from "Sleeper Slab" to "Junction Slab", in accordance with Design Standards.

Index Numbers valid through June 2011:
Index No. 420 & 5300- 32" F-Shape
Index 425 & 5300-42" F-Shape)
Index 423 & 5300 -32" Vertical Face
Index 422 & 5300-42" Vertical Face
Index 424 & 5300-Corral With Curb
Index 520- Gravity Wall

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards** Effective July 2011:
Index No. 420 & 6110- 32” F-Shape
Index No. 425 & 6110- 42” F-Shape)
Index No. 423 & 6110- 32” Vertical Face
Index No. 422 & 6120- 42” Vertical Face
Index No. 424 & 6120- Corral With Curb

**Specifications** Section 521

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **521- 8- AA** **CONCRETE TRAFFIC RAILING BARRIER- WITH JUNCTION SLAB** **LF**

AA =
1 (32” F-Shape)
2 (42” F-Shape)
3 (32” Vertical Face)
4 (42” Vertical Face)
5 (Corral With Curb)
20 (Special)*

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0521 8 1 | CONCRETE TRAFFIC RAILING BARRIER WITH JUNCTION SLAB, 32" F SHAPE | LF | | 1/1/2010 | |
| 0521 8 2 | CONCRETE TRAFFIC RAILING BARRIER, WITH JUNCTION SLAB, 42" F SHAPE | LF | | 1/1/2010 | |
| 0521 8 3 | CONCRETE TRAFFIC RAILING BARRIER, WITH JUNCTION SLAB, 32" VERTICAL FACE | LF | | 1/1/2010 | |
| 0521 8 4 | CONCRETE TRAFFIC RAILING BARRIER, WITH JUNCTION SLAB, 42" VERTICAL FACE | LF | | 1/1/2010 | |
| 0521 8 5 | CONCRETE TRAFFIC RAILING BARRIER WITH JUNCTION SLAB, CORRAL WITH CURB | LF | | 1/1/2010 | |
| 0521 8 20 | CONCRETE TRAFFIC RAILING BARRIER, RETAINING WALL SYSTEM MOUNTED WITH SLEEPER/ JUNCTION SLAB, SPECIAL | LF | | 1/1/2010 | 12/31/2010 |

**521- 72- AA** **SHOULDER CONCRETE BARRIER WALL**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Intended for rigid shoulder roadway barriers with 8'-14' shoulder mounted sound barrier walls and box culvert mounted barriers.
Use 521- 1- (2521- 1-) for median wall.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 410, 411, 5210, 5211, 5213, 5214, 5215

**Specifications** Section 521

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct. 521- 72- AA SHOULDER CONCRETE BARRIER WALL LF**

AA =
2 (Box Culvert)
3 (Rigid - Shoulder) 32", Index 410
4 (Rigid - Retaining)
5 (Rigid - Curb & Gutter)
6 (Plain - Shoulder) A=6 valid through 12-31-2009
7 (Rigid - Shoulder, With 8' Sound Wall)
10 (Rigid Shoulder 42") Index 411
11 (Rigid Shoulder 54") Index 411
20 (F-Shaped, With 8' Sound Wall)
21 (F-Shaped, With 10' Sound Wall)
22 (F-Shaped, With 12' Sound Wall)
23 (F-Shaped, With 14' Sound Wall)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0521 72 2 | SHOULDER CONCRETE BARRIER WALL, BOX CULVERT | LF | | 1/1/2010 | |
| 0521 72 3 | SHOULDER CONCRETE BARRIER WALL, RIGID-SHOULDER | LF | | 1/1/2010 | |
| 0521 72 4 | SHOULDER CONCRETE BARRIER WALL, RIGID RETAINING | LF | | 1/1/2010 | |
| 0521 72 5 | SHOULDER CONCRETE BARRIER WALL, RIGID-CURB & GUTTER | LF | | 1/1/2010 | |
| 0521 72 7 | SHOULDER CONCRETE BARRIER WALL, RIDIG - SHOULDER WITH 8' SOUND WALL | LF | | 1/1/2010 | |
| 0521 72 10 | SHOULDER CONCRETE BARRIER WALL, RIGID SHOULDER 42" | LF | | 1/1/2010 | |
| 0521 72 11 | SHOULDER CONCRETE BARRIER WALL, RIGID SHOULDER 54" | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0521 72 20 | SHOULDER CONCRETE BARRIER WALL, F SHAPED, WITH 8' SOUND WALL | LF | 1/1/2010 |
| 0521 72 21 | SHOULDER CONCRETE BARRIER WALL, F SHAPED, WITH 10' SOUND WALL | LF | 1/1/2010 |
| 0521 72 22 | SHOULDER CONCRETE BARRIER WALL, F SHAPED, WITH 12' SOUND WALL | LF | 1/1/2010 |
| 0521 72 23 | SHOULDER CONCRETE BARRIER WALL, F SHAPED, WITH 14' SOUND WALL | LF | 1/1/2010 |

## 521- 73- CONCRETE BARRIER WALL REMOVAL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This work normally paid for under Clearing and Grubbing or removal of existing structures. Read standards and specifications carefully before use; plan details may be required.

To be used for Roadway barrier only. For bridge barrier, refer to Structures Standards.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 521

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **521- 73-** **CONCRETE BARRIER WALL REMOVAL** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0521 73 | CONCRETE BARRIER WALL, REMOVAL | LF | | 1/1/2010 | |

## 522- 1- CONCRETE SIDEWALK, 4" THICK

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Consists of construction of plain or reinforced sidewalk. Includes all materials, foundation preparation, joint forming (or sawing), placing, finishing and curing. Specifically excludes excavation.
Sidewalk 6" (0.15 meter) is used in traffic-bearing situations, i.e., driveways.
Detectable Warning for sidewalk ramps is incidental to the cost of new sidewalk; for retro-fit of ramps, refer to Section 527 of the specifications.
Additional details on Index 310.
For designs near significant trees, consult with Environmental Management Office.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Ch 8
**Trns·port**
**Other**
**Standards** Index No. 282, 304, 310, 515
**Specifications** Section 522
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 522- 1- CONCRETE SIDEWALK, 4" THICK SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0522 1 | SIDEWALK CONCRETE, 4" THICK | SY | | 1/1/2010 | |

## 522- 2- CONCRETE SIDEWALK, 6" THICK

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Refer to pay item 522-1 for details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Ch 8

**Trns·port**

**Other Standards** Index No. 282, 304, 310

**Specifications** Section 522

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **522- 2-** **CONCRETE SIDEWALK, 6" THICK** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0522 2 | SIDEWALK CONCRETE, 6" THICK | SY | | 1/1/2010 | |

## 522- 3- BUS BAY/BOARDING PAD- CONCRETE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes** **New item available 1-1-10.**

**Details** To be used for the roadway portion of a bus pad, when a concrete bay is shown in the plans. Show dimensions, including pad thickness, in the plans. Details or specifications are required to indicate the concrete class (strength), reinforcement, and/or joints, as needed.

Do not use this pay item for the pedestrian/sidewalk areas of a bus stop.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Ch 8

**Trns·port**

**Other Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **522- 3-** **BUS BAY/BOARDING PAD- CONCRETE** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0522 3 | BUS BOARDING PAD- CONCRETE | SY | | 1/1/2010 | |

## 522- 4- BUS SHELTER PAD- CONCRETE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes** **New item available 1-1-10.**

**Details** To be used for the pedestrian (non-roadway) portion of a bus pad, when a shelter area is to be included. Show dimensions, including pad thickness, in the plans. Details or specifications are required to indicate the concrete class (strength), reinforcement, and/or joints, as needed. Include transition details between sidewalk and curb, in compliance with ADA requirements.

Note: If a pedestrian shelter is not required, a bus landing pad (connecting the sidewalk to the curb) may be included in the sidewalk quantities. Refer to the Plans Preparation Manual, Vol 1, Chapter 8 for additional information.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Ch 8

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **522- 4-** **BUS SHELTER PAD- CONCRETE** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0522 4 | BUS SHELTER PAD- CONCRETE | SY | | 1/1/2010 | |

## 523- 1- A PATTERNED / TEXTURED PAVEMENT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details** Includes placement of a patterned (colored) and/or textured (imprinted, stamped) treatment. Work/materials (coloring, coating, etc.) for treatment included under this item.

Underlying asphalt/concrete material paid for separately. Refer to the PPM for application restrictions.

Unit of measure is Plan Quantity, without deductions for trees, manholes, etc, per specification.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-01: Area Computation and Contunuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter** Vol 1, Ch 2

**Trns·port**

**Other**

**Standards**

**Specifications** Section 523

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **523- 1- A** **PATTERNED / TEXTURED PAVEMENT** **SY**

A= Underlying Pavement Material
1 (Asphalt)
2 (Concrete)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0523 1 1 | PATTERNED / TEXTURED PAVEMENT, ASPHALT | SY | | 1/1/2010 | |
| 0523 1 2 | PATTERNED / TEXTURED PAVEMENT, CONCRETE | SY | | 1/1/2010 | |

## 524- 1- A CONCRETE DITCH PAVEMENT: NON-REINFORCED

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Consists of construction of concrete pavement in the flow channel of drainage ditches. Includes excavation below the finished grade, refilling and tamping, and disposal of surplus material. Also includes all costs of providing joints and weep holes, ditch blocks within ditch pavement area, furnishing and placing the filter fabric, skimmers, and any incidental materials, as detailed in the plans.

Refer to Index 281 for additional information.

Tabulate ditch pavement and ditch blocks, by location in the plans.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | SBDitchPvmt: Summary of Ditch Pavement and Performance Turf, Sod<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 281

**Specifications** Section 524

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 524- 1- A** **CONCRETE DITCH PAVEMENT: NON-REINFORCED** **SY**

A =
1 (3")
2 (4")
3 (5")
4 (6")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0524 1 1 | CONCRETE DITCH PAVT, NON REINFORCED, 3" | SY | | 1/1/2010 | |
| 0524 1 2 | CONCRETE DITCH PAVEMENT, NON REINFORCED, 4" | SY | | 1/1/2010 | |
| 0524 1 3 | CONCRETE DITCH PAVEMENT, NON REINFORCED, 5" | SY | | 1/1/2010 | |
| 0524 1 4 | CONCRETE DITCH PAVEMENT, NON REINFORCED, 6" | SY | | 1/1/2010 | |

## 524- 1- AB CONCRETE DITCH PAVEMENT:REINFORCED

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Consists of construction of concrete pavement in the flow channel of drainage ditches. Includes excavation below the finished grade, refilling and tamping, and disposal of surplus material. Also includes all costs of providing joints and weep holes, ditch blocks within ditch pavement area, furnishing and placing the filter fabric, skimmers, and any incidental materials, as detailed in the plans.
Refer to Index 281 for additional information.
When reinforcement is called for, detail quantities in the plans. No separate payment is made for reinforcement.

Tabulate ditch pavement and ditch blocks, by location in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBDitchPvmt: Summary of Ditch Pavement and Performance Turf, Sod

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 281

**Specifications** Section 524

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **524- 1- AB** **CONCRETE DITCH PAVEMENT:REINFORCED** **SY**

A =
1 (3")
2 (4")
3 (5")
4 (6")

B =
9 (Reinforced)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0524 1 19 | CONCRETE DITCH PAVT, 3", REINFORCED | SY | | 1/1/2010 | |
| 0524 1 29 | CONCRETE DITCH PAVEMENT, 4", REINFORCED | SY | | 1/1/2010 | |
| 0524 1 49 | CONCRETE DITCH PAVEMENT, 6", REINFORCED | SY | | 1/1/2010 | |

**524- 2- A** **CONCRETE SLOPE PAVEMENT: NON-REINFORCED**

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for non-reinforced slope pavement to protect bridge fill slopes, to line flow channels, and drainage ditches. Refer to 524- 1-xxa for details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBDitchPvmt: Summary of Ditch Pavement and Performance Turf, Sod

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 524

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 524- 2- A** **CONCRETE SLOPE PAVEMENT: NON-REINFORCED** **SY**

A =
1 (3")
2 (4")
3 (5")
4 (6")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0524 2 1 | CONCRETE SLOPE PAVEMENT,NON REINFORCED, 3" | SY | | 1/1/2010 | |
| 0524 2 2 | CONCRETE SLOPE PAVEMENT,NON REINFORCED, 4" | SY | | 1/1/2010 | |

## 524- 2- AB CONCRETE SLOPE PAVEMENT: REINFORCED

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Intended for reinforced slope pavement to protect bridge fill slopes, to line flow channels, and drainage ditches. Refer to 524- 1-xxa for details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBDitchPvmt: Summary of Ditch Pavement and Performance Turf, Sod

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 524

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **524- 2- AB** **CONCRETE SLOPE PAVEMENT: REINFORCED** **SY**

A =
1 (3")
2 (4")
3 (5")
4 (6")

B =
9 (Reinforced)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0524 2 4 | CONCRETE SLOPE PAVEMENT,NON REINFORCED, 6" | SY | | 1/1/2010 | |
| 0524 2 29 | CONCRETE SLOPE PAVEMENT, 4", REINFORCED | SY | | 1/1/2010 | |
| 0524 2 49 | CONCRETE SLOPE PAVEMENT, 6", REINFORCED | SY | | 1/1/2010 | |

## 524- 3- CONCRETE CORE DITCH BLOCKS

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** yes

**Notes** **Effective July 2009, with plan details or tech spec. Modified Section 524 pending for July 2010.**

**Details** Cubic Yard item for concrete core ditch blocks to be used ONLY for grass or earth ditches without other ditch pavement. Tabulate each location and cubic yard quantity of concrete in the plans. Plan quantity payment also includes any necessary earthwork.

Do not use this pay item for Ditch Blocks within areas where payment is made for Concrete Ditch Pavement.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBDitchPvmt: Summary of Ditch Pavement and Performance Turf, Sod

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **524- 3-** **CONCRETE CORE DITCH BLOCKS** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0524 3 | CONC CORE DITCH BLOCKS | CY | | 1/1/2010 | |

## 525- 1- ASPHALTIC CONCRETE CURB

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Not intended for temporary or MOT applications. Use in accordance with Index 300.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 300

**Specifications** Section 525

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **525- 1-** **ASPHALTIC CONCRETE CURB** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0525 1 | CURB ASPHALTIC CONC | LF | | 1/1/2010 | |

## 526- 1- A PAVERS, ARCHITECTURAL

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details**

Used for roadway (roadway, commercial driveways) and/or sidewalk (sidewalks, medians, and residential driveway) applications. Refer to the PPM for restricted applications.

Measurement is per square yard, with no deduction for ornamental trees, manholes, inlets, or other public appurtenances within the normal area of the pavers. Refer to the specifications for measurement details.

For Patterned/Textured pavement (asphalt or concrete), use 523 items.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter** Vol 1, Ch 2

**Trns·port**

**Other Standards** Index 515 for turnouts

**Specifications** Section 526

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **526- 1- A** **PAVERS, ARCHITECTURAL** **SY**

A =
1 (Roadway)
2 (Sidewalk)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0526 1 1 | PAVERS, ARCHITECTURAL, ROADWAY | SY | | 1/1/2010 | |
| 0526 1 2 | PAVERS, ARCHITECTURAL, SIDEWALK | SY | | 1/1/2010 | |

## 527- 1- DETECTABLE WARNING ON EXISTING WALKING SURFACE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is to be used for Detectable Warnings applied to existing walking surfaces (RETROFIT for previous projects), used in coordination with Index 304.

For new installations (detectable warnings constructed under the current project/proposal), use index 304; cost of detectable warning for new installations is included in the cost of the walking surface- sidewalk, curb, etc.
Refer to specifications for a complete description of acceptable products.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 304

**Specifications** Section 527

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **527- 1-** **DETECTABLE WARNING ON EXISTING WALKING SURFACE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0527 1 | DETECTABLE WARNING ON EXISTING WALKING SURFACE, RETROFIT | EA | | 1/1/2010 | |

## 530- 1- RIPRAP- SAND - CEMENT

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** no

**Notes**

**Details**

This item entails the use of sand-cement bags to construct endwalls, provide fill slope protection, and/or provide ditch bottom and ditch slope protection. To be used in accordance with Design Standards.

Note, per specification: Record and show how quantity was arrived at on tabulation form 700-050-56. If sand-cement is proportioned by volume, the sand shall be measured loose in an approved measure prior to mixing with cement. If proportioned by weight, approved scales shall be used for this purpose and the volume shall be calculated using a standard conversion factor for sand of 85 lb/ft³ (1360 kg/m³).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-04: Volume Measure Items and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 258 or 268

**Specifications** Section 530

**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **530- 1-** **RIPRAP- SAND - CEMENT** **CY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0530 1 | RIPRAP, SAND-CEMENT | CY | | 1/1/2010 | |

## 530- 3- A RIPRAP- RUBBLE

**Unit** TN; MT **Accuracy** 1/10 Ton; 1/10 Metric Ton **PlanQuantity?** no

**Notes**

**Details**

To be used for bank and shore, bridge abutment, ditch, and outlet structure protection. Refer to Drainage Manual for design criteria. Gradation is given in the specifications. Design quantity is based on the following: W = Vol.s X S.G. X Ww X Vf
W = Weight of Stone
Vol.s = Volume of Stone
S.G. = Specific Gravity
=2.3 for Bank & Shore Protection
=1.9 for Ditch Lining
Ww = 62.4 lb/ft3 (1 MT/M3) Weight of Water
Vf = .90 (Void Factor)
NOTE: remember to convert weight (LB) to (TN) for unit of measure & payment.

COASTAL SHORE- LARGE BOULDERS: Contact the State Drainage Office, prior to using this item. The standard specifications must be modified to detail the boulder size and specific gravity.

Final measure, per specifications, will be by railroad scales, truck scales, or barge displacement.

**Related Items** **Required** **Recommended** 514-71

**Design Forms and Documentation**

COMP 700-050-06: Weight Measure or Liquid Volume Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 530
**Prep & Doc Manual Chapter(s)** 6, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **530- 3- A** **RIPRAP- RUBBLE** **TN**

A =
3 (Bank & Shore)
4 (Ditch Lining)
5 (Coastal Shore- Large Boulders) to be used only with approval; see details above.

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0530 3 3 | RIPRAP- RUBBLE, BANK AND SHORE | TN | | 1/1/2010 | |
| 0530 3 4 | RIPRAP, RUBBLE, F&I, DITCH LINING | TN | | 1/1/2010 | |
| 0530 3 5 | RIPRAP- RUBBLE, COASTAL SHORE- LARGE BOULDERS | TN | M | 1/1/2010 | |

## 530- 74- BEDDING STONE

**Unit** TN; MT **Accuracy** 1/10 Ton; 1/10 Metric Ton **PlanQuantity?** no

**Notes**

**Details** Quantities should be based on 115 lbs per cubic foot (1840 kg per cubic meter).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-06: Weight Measure or Liquid Volume Comp & Cont.
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
700-050-56: Daily Log Sheet Miscellaneous Tabulation Form Site Source Record
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Section 530
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **530- 74-** **BEDDING STONE** **TN**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0530 74 | BEDDING STONE | TN | | 1/1/2010 | |

## 530- 76- A GABION MAT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details**

Standards under development; contact the State Drainage Office for assistance.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **530- 76- A** **GABION MAT** **SY**

A = Thickness
1 (6" Thick)
2 (9" Thick)
3 (18")
4 (12")
5 (15")

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0530 76 2 | GABION MAT, 9" THICK | SY | T | 1/1/2010 | |
| 0530 76 4 | GABION MAT, 12" THICK | SY | T | 1/1/2010 | |
| 0530 76 5 | GABION MAT, 15" THICK | SY | T | 1/1/2010 | |

## 530- 77- A GABION BASKET

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **530- 77- A** **GABION BASKET** **SY**

A =
1 (12" Thick)
2 (36" Thick)
3 (30" Thick)
4 (18" Thick)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 530- 78- RIPRAP- ARTICULATING BLOCK

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **530- 78-** **RIPRAP- ARTICULATING BLOCK** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0530 78 | RIPRAP - ARTICULATING BLOCK | SY | T | 1/1/2010 | |

## 530- 79- PLASTIC CELLULAR CONFINEMENT SYSTEM

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Effective January 2009 letting, with approval for specific projects.**

**Details**

Contact the State Drainage Office for approval, prior to using this item. Technical Specifications should be reviewed by Drainage Office, Construction Office, and/or State Geotechnical Engineer.

Intended for permanent erosion control applications. Temporary applications are covered under Section/Items 104. Reinforced Soil Slopes and/or Soft Soil reinforcement covered under Section/Items 145.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **530- 79-** **PLASTIC CELLULAR CONFINEMENT SYSTEM** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 534- 72-1AA CONCRETE SOUND BARRIERS- INCLUDING FOUNDATION

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Effective January 2011 letting: New index 5207**
**Effective July 2011 letting: Indexes 5200 through 5207 combined into new index 5200**

**Details**

To be used for panel-type concrete sound barrier (wall) construction, in accordance with Section 534.
Refer to standards for details. Includes the cost of the foundation (auger cast piles or spread footings when called for in the plans), test wall, etc. Area bounded by top of panel, bottom of panel, without deductions for openings; refer to specs for additional information.

Walls are coated with either a class 5 or anti-graffiti coating, as shown in the plans. Class 5 coatings are incidental to all new construction. Anti-graffiti coatings are paid separately under Section 563. Show locations and quantities in the plans.

Special details must be included in the plans.

NOTE: Sound barriers to be placed on bridges or MSE wall sections are not covered by the new standards or this pay item. Sound barriers in these locations have separate standards and pay items. See 521-5, 521-7, and 521-72 for shoulder mounted sound barriers.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

Index 5200 Series: Sound Barrier Data Tables- Includes Summary of Foundations and Wall Quantities, Aesthetic Requirements, and Limits of Anti-Graffiti Coating

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter** Vol 1, Chapter 32, or Structures Design Manual (Note: Text moving from

PPM to SDM in 2011)

**Trns·port**

**Other Standards** Through June 2011- Index No. 5200 series: 5200, 5201, 5202, 5203, 5204, 5205, 5206, 5207
Effective July 2011- Index 5200

**Specifications** Section 534

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **534- 72-1AA** **CONCRETE SOUND BARRIERS- INCLUDING FOUNDATION** **SF**

A=
01 (Permanent)
02 (Temporary)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0534 72101 | SOUND BARRIER-INC FOUNDATION, PERMANENT | SF | | 1/1/2010 | |
| 0534 72102 | SOUND BARRIER-INC FOUNDATION, TEMPORARY | SF | T | 1/1/2010 | |

## 534- 73- PERIMETER WALL

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes** **Monitor: Steve Nolan, State Structures Design Office**

**Details** To be used for perimeter wall construction, in accordance with Developmental Design Index D5250. Contact the State Structures Design Office for drawings and details. Also used with Developmental Specifications.

Includes the cost of the foundation (auger cast piles or spread footings when called for in the plans), test wall, etc. Area bounded by top of panel, bottom of panel, without deductions for openings; refer to specs for additional information.

NOTE: There is currently no specific criteria specifying when perimeter walls are justified. This will be a project by project decision based on project demands and resolved by the District.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Chapter 32

**Trns·port**

**Other Standards** Developmental Index No. D5250

**Specifications**

**D: Developmental Specification required.**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **534- 73-** **PERIMETER WALL** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0534 73 | PERIMETER WALL | SF | M | 1/1/2010 | |

## 536- 1- AA GUARDRAIL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Effective July 2011, see details for changes to Bridge Anchorage Assembly.**

**Details**

Consists of the construction of metal guardrail on posts of timber or steel. Panels are 12.5' (3.810 meters) in length. The plan length of a run of guardrail should normally be determined as a multiple of the nominal panel lengths. Note that the limits of guardrail for measurement and payment extend through the limits of the end anchorage assembly, as shown in the design standards.

When attaching guardrail to a new or widened bridge railing, the guardrail (including transition and thrie beam panels) is paid for under item 536-1- (2536-1-).
Through June 2011: The cost of connecting the guardrail to the bridge railing is included in the cost of the guardrail.
Effective July 2011: Use pay item 536-8 for Bridge Anchorage Assembly.

When connecting guardrail to an existing bridge railing or to vertical face rail retrofits, the guardrail (including transition and thrie beam panels) is paid for under the item 536-1- (2536-1-) and item 536-8 is included for the cost of connecting the guardrail to the existing bridge railing. Other situations should be noted in the plans.

Pipe rail is a pedestrian safety treatment; it is to be included in the cost of the guardrail, as indicated on standards. Tabulate the length of pedestrian pipe rail on the Summary of Guardrail in the plans. Refer to Index 400, Pedestrian Treatments, for additional information.

Rub rail is used for guardrail placed on slopes, as shown on the standards, mounted approximately 12 inches below the center of the standard guardrail. Per the standard, payment is included in the contract unit price for guardrail. Tabulate the length of rubrail on the Summary of Guardrail in the plans. Use the "Roadway, with rubrail" pay item.

When weathering steel is called for,

Document locations on summary table. Refer to PPM Vol 2, Chapter 7 for details.

Object markers used for facing reverse laning traffic are included in the cost of the

guardrail.

Bridge Thrie Bean: Refer to Index 470. Payment is made under 460-71-1

**Related Items** **Required** 339- 1 (2339- 1) **Recommended** 536- 7 and 536- 8 (2536- 7, 2536- 8)

**Design Forms and Documentation**

SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other** Normally requires SHOP DRAWINGS

**Standards** Index No. 400, 402

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 1- AA** **GUARDRAIL** **LF**

A =
1 (Roadway)
2 (Bridge)
3 (Roadway, Double Face)
4 (Bridge, Double Face)
5 (Roadway, Thrie Beam)
6 (Bridge, Thrie Beam) valid through 6-30-10.
8 (Roadway, With Rub Rail) see details above for pipe rail.
9 (Roadway, Thrie Beam, Double Face)
11 (Roadway, Modified Thrie Beam)
12 (Roadway, Modified Thrie Beam, Double Face)
13 (Roadway, Install only- materials available at FDOT Maintenance Yard)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 1 1 | GUARDRAIL -ROADWAY | LF | | 1/1/2010 | |
| 0536 1 2 | GUARDRAIL- BRIDGE | LF | | 1/1/2010 | |
| 0536 1 3 | GUARDRAIL- ROADWAY, DOUBLE FACE | LF | | 1/1/2010 | |
| 0536 1 5 | GUARDRAIL- ROADWAY, THRIE BEAM | LF | | 1/1/2010 | |
| 0536 1 8 | GUARDRAIL, ROADWAY, WITH RUB RAIL | LF | | 1/1/2010 | |
| 0536 1 9 | GUARDRAIL- ROADWAY, THRIE BEAM, DOUBLE FACE | LF | | 1/1/2010 | |
| 0536 1 11 | GUARDRAIL, ROADWAY, MODIFIED THRIE BEAM | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0536 1 12 | GUARDRAIL, ROADWAY, MODIFIED THRIE BEAM-DOUBLE FACE | LF | 1/1/2010 |
| 0536 1 13 | GUARDRAIL, ROADWAY, INSTALL ONLY-MATERIALS AVAILABLE AT FDOT MAINTENANCE YARD | LF | 1/1/2010 |

## 536- 2- GUARDRAIL- SHOP BENT PANELS

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** yes

**Notes**

**Details** Refer to the design standards for use of this item. Per the specifications, payment will be made when the radius of the guardrail installation is such as to require shop bent panels.

**Related Items** **Required** 339- 1 **Recommended**

**Design Forms and Documentation** SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other Standards** Index No. 400

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 2-** **GUARDRAIL- SHOP BENT PANELS** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 2 | GUARDRAIL- SHOP-BENT PANELS | LF | | 1/1/2010 | |

## 536- 4- A RETROFIT EXISTING GUARDRAIL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** This item to be used when existing guardrail is to be retrofitted with additional components. Do not use this item for replacement of complete guardrail system.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 4- A** **RETROFIT EXISTING GUARDRAIL** **LF**

A= Component
1 (Pedestrian/Cyclist Pipe Rail)
2 (Rubrail)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 4 1 | RETROFIT EXIST GUARDRAIL, PEDESTRIAN/ CYCLE PIPE RAIL | LF | | 1/1/2010 | |

## 536- 7- SPECIAL GUARDRAIL POST

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Refer to Index 400 for all types of special posts: timber, steel, and others.
Used when culvert, pier footing or other concrete structure precludes normal post installation and special fabrication is required. Specifically excludes posts for double-faced median guardrail. When this item is used, item 536- 1-xxa (2536- 1-xxa) must be used.

Special Posts, as shown in index 400 and 402, are paid under 536-7, only when meeting spec requirement of "special fabrication". Refer to 536-6.2 of the specifications.

"Special Length" posts must be detailed in the plans, along with the vertical depth for installation. Special length posts are paid under item 536-76.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 400

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 7-** **SPECIAL GUARDRAIL POST** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 7 | SPECIAL GUARDRAIL POST | EA | | 1/1/2010 | |

## 536- 8- A GUARDRAIL BRIDGE ANCHORAGE ASSEMBLY

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Effective July 2011 letting, included for new and retrofit applications.**

**Details** Through June 2011 letting: Used when connecting guardrail to an existing bridge. Includes furnishing and installing special end shoes, wood blocks or concrete wedges, concrete posts and necessary hardware.

Effective July 2011 letting: Used when connecting guardrail to a bridge (new or retrofit). Includes furnishing and installing special end shoes, wood blocks or concrete wedges, concrete posts and necessary hardware.

Install: The install operation is only used when the materials are furnished by FDOT or other maintaining agency.
Relocate: Relocate the assembly within the contract limits. Includes the complete removal and reinstallation, as noted in the plans or specifications.
Remove: The plans or specs must indicate the disposal or salvage instruction.

**Related Items** **Required** 536- 1- AA **Recommended**

**Design Forms and Documentation**

SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 402

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 8- A** **GUARDRAIL BRIDGE ANCHORAGE ASSEMBLY** **EA**

A = Operation
Blank (Furnish & Install)
1 (Install)
3 (Relocate)
6 (Remove)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 8 | GUARDRAIL- BRIDGE ANCHORAGE ASSEMBLY, FURNISH & INSTALL | EA | | 1/1/2010 | |
| 0536 8 1 | GUARDRAIL, BRIDGE ANCHORAGE ASSEMBLY, INSTALL | EA | | 1/1/2010 | |
| 0536 8 6 | GUARDRAIL, BRIDGE ANCHORAGE ASSEMBLY, REMOVE | EA | | 1/1/2010 | |

## 536- 73- GUARDRAIL REMOVAL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For single run, double face guardrail: measurement and payment are based on the single run length. Refer to specification for details. (Do not double the centerline length for double face guardrail.)

Payment includes disposition of the guardrail, as specified in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 400

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 73-** **GUARDRAIL REMOVAL** **LF**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 73 | GUARDRAIL REMOVAL | LF | | 1/1/2010 | |

## 536- 76- GUARDRAIL POSTS- SPECIAL LENGTH

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Refer to index 400 for guardrail posts.
Special Posts, as shown in index 400 and 402, are paid under 536-7, only when meeting spec requirement of "special fabrication". Refer to 536-6.2 of the specifications.

Special Length posts must be detailed in the plans, along with the vertical depth for installation.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 400

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 76-** **GUARDRAIL POSTS- SPECIAL LENGTH** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 76 | GUARDRAIL POST - SPECIAL LENGTH | EA | D | 1/1/2010 | |

## 536- 82- GUARDRAIL ANCHORAGE- CONCRETE BARRIER WALL

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Independent stand alone anchorage to be used between guardrail and a fixed structure.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 400, 410, 413, 415

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 82-** **GUARDRAIL ANCHORAGE- CONCRETE BARRIER WALL** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 82 | GUARDRAIL ANCHORAGE- CONCRETE BARRIER WALL | EA | | 1/1/2010 | |

## 536- 83- A GUARDRAIL POST REPLACEMENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** To be used in accordance with Index 400.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 400

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 83- A** **GUARDRAIL POST REPLACEMENT** **EA**

A =
1 (Regular)
3 (Steel In Concrete, Regular)
4 (Steel In Asphalt, Regular)
5 (Steel In Soil, Regular)
6 (Wooden In Asphalt, Regular)
7 (Wooden In Soil, Regular)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 83 1 | GUARDRAIL POST REPLACEMENT, REGULAR | EA | | 1/1/2010 | |

## 536- 85- AA GUARDRAIL END ANCHORAGE ASSEMBLY

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Includes furnishing and installing all necessary hardware, as shown in Standard Index 400.

**Related Items** **Required** 536- 1 **Recommended**

**Design Forms and Documentation**

SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 400

**Specifications** Section 536

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **536- 85- AA** **GUARDRAIL END ANCHORAGE ASSEMBLY** **EA**

AA =
22 (Flared)
24 (Parallel)
25 (Type II)
26 (Type CRT)
27 (Double Face Terminal)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0536 85 22 | GUARDRAIL END ANCHORAGE ASSEMBLY-FLARED | EA | | 1/1/2010 | |
| 0536 85 24 | GUARDRAIL END ANCHORAGE ASSEMBLY-PARALLEL | EA | | 1/1/2010 | |
| 0536 85 25 | GUARDRAIL END ANCHORAGE ASSEMBLY-TYPE II | EA | | 1/1/2010 | |
| 0536 85 26 | GUARDRAIL END ANCHORAGE ASSEMBLY-TYPE CRT | EA | | 1/1/2010 | |
| 0536 85 27 | GUARDRAIL END ANCHORAGE ASSEMBLY-DOUBLE FACE TERMINAL | EA | | 1/1/2010 | |

## 538- 1- GUARDRAIL- RESET

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Consists of the removal of existing guardrail and resetting of the salvaged guardrail along with necessary new materials. Locations of the existing and proposed guardrail must be shown in the plans. Coordinate the use of this item with District Maintenance Office.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBGuardrail: Summary of Guardrail (Includes Ped Safety, Rub Rail, and End Anchorage Assy)
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 400
**Specifications** Section 538
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **538- 1-** **GUARDRAIL- RESET** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0538 1 | GUARDRAIL RESET | LF | | 1/1/2010 | |

## 539- 75-ABC GLARE SCREEN

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Material and installation requirements are needed for project specific conditions.

This item is for permanent installations only. For temporary installations (during construction/maintenance contract), see MOT Section 102 items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **539- 75-ABC** **GLARE SCREEN** **LF**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC=00
4 (Remove) BC=00
6 (Relocate) BC=00

B = Material
1 (Modular)

C = Height
1 (18")
2 (24")
3 (30")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0539 75113 | GLARE SCREEN , F&I, MODULAR, 30" | LF | T | 1/1/2010 | |
| 0539 75400 | GLARE SCREEN, REMOVE | LF | T | 1/1/2011 | |
| 0539 75600 | GLARE SCREEN, RELOCATE | LF | T | 1/1/2011 | |

| 539- 80-ABC | OPAQUE VISUAL BARRIER |
|---|---|

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

The Designer should coordinate the details on Index 461 with project specific conditions. Payment for barrier includes concrete and reinforcing steel, as shown on design standard.

Non-concrete materials will require details and material specifications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 461

**Specifications**

Special Provision available for compensation information

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

| Struct. | 539- 80-ABC | OPAQUE VISUAL BARRIER | LF |
|---|---|---|---|

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC=00
4 (Remove) BC=00

B = Material
1 (Concrete)
2 (Fiberglass)*
3 (Aluminum)*

C = Height
1 (2' 3" Height)

**Notes** *Only concrete option included on design standard

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0539 80111 | OPAQUE VISUAL BARRIER, F&I, CONCRETE, 2'3" HT | LF | | 1/1/2010 | |

## 540- HIGH TENSION CABLE BARRIER SYSTEM WITH ANCHORS

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Future item; refer to developmental item 904-540-xx1**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **540-** **HIGH TENSION CABLE BARRIER SYSTEM WITH ANCHORS** **LF**

pending

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 542- 70- BUMPER GUARDS, CONCRETE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Parking space bumper, used in rest areas, service plazas, etc. Concrete Bumper guard dimensions are shown on index 300. The Designer should coordinate the design standard and/or plan details as needed. If other materials are acceptable, detail the material requirements in the plans/specs.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 300

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **542- 70-** **BUMPER GUARDS, CONCRETE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0542 70 | BUMPER GUARDS, CONCRETE | EA | T | 1/1/2010 | |

## 544- 74- AA RELOCATE CRASH CUSHION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Items to be relocated/installed in accordance with Standards and/or manufacturer's instructions.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBCushion: Summary of Permanent Crash Cushions

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications** Section 544

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **544- 74- AA** **RELOCATE CRASH CUSHION** **EA**

AA =Brand Name, to be updated to coordinate with the QPL
8 (Cat)
9 (Brakemaster)
10 (Dragnet)
13 (React 350)
14 (Quadgard)
17-20 Hold
23 (SCI)
24 (Quest)
25 (HEART)
26 (X-MAS)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0544 74 14 | RELOCATE CRASH CUSHION - QUADGUARD | EA | | 1/1/2010 | |
| 0544 74 23 | RELOCATE CRASH CUSHION - SCI | EA | | 1/1/2010 | |
| 0544 74 24 | RELOCATE CRASH CUSHION - QUEST | EA | | 1/1/2010 | |

## 544- 75- AA CRASH CUSHION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Refer to Plans Preparation Manual and Design Standards prior to selecting a specific option. Items are to be installed in accordance with Standards and/or manufacturer's instructions. All items must be listed on QPL, per specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBCushion: Summary of Permanent Crash Cushions
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter** Vol 1, Chapter 4
**Trns·port**
**Other Standards** Index No. 430
**Specifications** Section 544
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **544- 75- AA** **CRASH CUSHION** **EA**

AA = Brand Name, to be updated to coordinate with the QPL
DOES NOT INCLUDE SAND FILLED ATTENUATORS; Project Specific Design Required.
8 (Cat)*
9 (Brakemaster)* @9-8-1997

10 (Dragnet)*
13 (React 350)* @10-13-1995
14 (Quadguard)* @2-3-1999
16 (Tracc)* @Temporary use only; valid through ???
17 (QuadGuard Elite)* @11-18-1999
18 (QuadGuard LMC)* @11-9-1998
19 (QuadGuard LMA)*
20 (QuadTrend)*
21 (TAU-II)* @6-16-2004
22 (Widetracc)*
23 (SCI)* @6-10-2005
24 (Quest)* @7-24-2006
25 (Heart)* @4-9-2009
26 (X-MAS: X-tension Median Attenuator System)* @2-1-2010
27 (Energite III)* @new 11-9-1998
28 (QuadTrend 350)* @new 7-20-1999
29 (Quadguard HS)* @new 10-7-2002
31 (Absorb 350 TM)* @new 6-16-2004
32 (Guadguard CZ system on a Plate)* @new 1-12-2005
33 (Quadguard Wide 10 Flare)* @new 2-6-2006
34 (TRACC 05)* @new 2-6-2006
35 (Quardguard Elite Family)* @new 2-23-2010
36 (Quadguard II System)* @new 4-6-2010
?? (ACZ-350-TL 3) approvals pending
?? (NEAT) approvals pending
40 (Optional)

**Notes** *AA=40 (Optional) should be used, unless there is a specific reason why options are limited to a single product. Refer to index 430 for additional information.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0544 75 13 | CRASH CUSHION - REACT 350 | EA | | 1/1/2010 | |
| 0544 75 14 | CRASH CUSHION - QUADGUARD | EA | | 1/1/2010 | |
| 0544 75 21 | CRASH CUSHION- TAU-II | EA | | 1/1/2010 | |
| 0544 75 23 | CRASH CUSHION - SCI | EA | | 1/1/2010 | |
| 0544 75 24 | CRASH CUSHION - QUEST | EA | | 1/1/2010 | |
| 0544 75 26 | CRASH CUSHION- X-MAS | EA | | 1/1/2010 | |
| 0544 75 40 | CRASH CUSHION - OPTIONAL | EA | | 1/1/2010 | |

## 544- 76- A ATTENUATOR MODULES- SAND FILLED

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **DO NOT OPEN without a project specific approved design**

**Details** Note: QPL Products available; project specific design may also be required.
(Fitch Universal Sand)* @new 4-21-1999
(CrashGard Sand Barrel)* @new 8-10-2007

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBCushion: Summary of Permanent Crash Cushions
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications** Section 544

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **544- 76- A** **ATTENUATOR MODULES- SAND FILLED** **EA**

A= Project Number

Note: QPL Products available; project specific design may be required.
(Fitch Universal Sand)* @new 4-21-1999
(CrashGard Sand Barrel)* @new 8-10-2007

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 546- 71- RUMBLE STRIP SETS

**Unit** PS **Accuracy** Per Set **PlanQuantity?** no

**Notes**

**Details**

Raised rumble strip SETS shall be constructed at all structures with less than full width shoulders. They will also be constructed at intersection approaches only when specified in the plans. This item is to be used in accordance with Standard Index 518.

Note that thermoplastic sets typically include 4 strips; Asphalt sets include 6 strips. Refer to Index for details.

For ground-in strips, refer to item 546-72-AB.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter** Vol 1, Ch 2

**Trns·port**

**Other Standards** Index No. 518

**Specifications** Section 546

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **546- 71-** **RUMBLE STRIP SETS** **PS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0546 71 | RUMBLE STRIPS | PS | | 1/1/2010 | |

## 546- 72- AB RUMBLE STRIPS

**Unit** PM; KM **Accuracy** 1/10 Mile; Kilometer **PlanQuantity?** yes

**Notes**

**Details**

Ground-in rumble strips (16" minimum width, 400 mm minimum width) shall be constructed on freeway and other limited access per Index No. 518. Other methods and types of applications shall not be used unless approved in writing by the State Roadway Design Engineer. Approval will be considered only with sufficient documented justification for variance from this standard.
For Raised Rumble Strips, refer to item 546-71-.

Measurement, per specification: The quantity of will be the plan quantity in miles, constructed and accepted. The plan quantity will be determined based on the roadway length minus bridge lengths for each shoulder on which Rumble Strips are to be constructed.

Per specifications, plan quantity will be determined based on the roadway length, minus bridge lengths for each shoulder on which Rumble Strips are to be constructed. (No deduction is made for skip section of skip array.)

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Ch 2

**Trns·port**

**Other Standards** Index No. 518

**Specifications** Section 546

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **546- 72- AB** **RUMBLE STRIPS** **PM; KM**

A = Type
5 (Ground-In)

B =
1 (16" Min. Width)
0 (Non Standard)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0546 72 50 | RUMBLE STRIPS, GROUND-IN, NON STANDARD | PM | | 1/1/2010 | |
| 0546 72 51 | RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH | PM | | 1/1/2010 | |

## 547- 70- A RIPRAP, FABRIC-FORMED CONCRETE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Future use may require development of specs and/or standards.**

**Details** Used for specialized fabric riprap; requires Technical Special Provisions. Contact State Drainage office for additional information.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **547- 70- A** **RIPRAP, FABRIC-FORMED CONCRETE** **SY**

A =
1 (8" Filter Points)
2 (10" Filter Points)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0547 70 1 | RIPRAP FABRIC-FORMED CONCRETE, 8" FILTER POINTS | SY | T | 1/1/2010 | |
| 0547 70 2 | RIPRAP FABRIC-FORMED CONCRETE, 10" FILTER POINTS | SY | T | 1/1/2010 | |

## 548- AA- RETAINING WALL SYSTEM

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Approved MSE walls are listed on the Qualified Products List (QPL).

Per the specifications, the quantity to be paid for will be plan quantity, subject to the following:
For permanent retaining wall systems: the top of the coping, the top of the leveling pad, top of structural footings, and the beginning and end wall limits as shown on the wall control drawings.
For temporary retaining wall systems: the top of wall and the beginning and end wall limits as shown on the wall control drawings.

This pay item is not intended for Soldier Pile, Concrete Steel Sheet Pile, or cast-in-place walls. For these wall types, use the appropriate pay items for concrete and steel.

*For Permanent-Widening walls, compensation information is needed in the specifications. Coordinate with Specs to modify existing spec.

NOTE: Include item in TRNS*PORT Roadway Category.

**Related Items** **Required** **Recommended** 521- 6-xxa, or 521-8-xaa

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Chapter 30

**Trns·port**

**Other Standards** Through June 2011, Index No. 5300, 5301.
Effective July 2011, Index 6020 and 6030.

**Specifications** Section 548

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **548- AA-** **RETAINING WALL SYSTEM** **SF**

AA = Type
12 (Permanent) excluding barrier
13 (Temporary) excluding barrier
14 (Permanent- Widening) attached to existing wall; *see BOE detail

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0548 12 | RETAINING WALL SYSTEM, PERMANENT, EXCLUDING BARRIER | SF | | 1/1/2010 | |
| 0548 13 | RETAINING WALL SYSTEM,TEMPORARY, EXCLUDING BARRIER | SF | | 1/1/2010 | |
| 0548 14 | RETAINING WALL SYSTEM, PERMANENT-WIDENING, ATTACHED TO EXISTING WALL | SF | | 1/1/2010 | |

## 550- 10-ABC FENCING

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Includes all fence, posts, and incidental materials. Gates to be paid under 550-60-ABC.

Type A= 9 (Special) is used for decorative/wood fencing, other than A, B, or R. Tech Spec and/or plan details required to specify materials, installation, and payment.

Details/Features C=8 (Reset Existing), per the specification, measurement & payment is for "the actual length of existing fence reset, including gates when applicable."

Details/Features C=9 (Special) may be used for Type A or B fence, when special features, other than barbed attachment or coatings are needed. For example, fine mesh added to standard Type B fence, for restricting small critters.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended** 550- 60-ABC

**Design Forms and Documentation**

SBFence: Summary of Fence (no posts); SBFence Type A: Summary of Fence, Type A w/Posts; or SBFence Type B: Summary of Fence, Type B w/ Posts

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Ch 2 for Bridge Fencing

**Trns·port**

**Other Standards** Indexes 800, 801, 802, 803, 810, 811, 812

**Specifications** Section 550

**T: Selected Items may require Plan Details and/or Technical**

## Specifications

### Prep & Doc Manual Chapter(s)

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **550- 10-ABC** **FENCING** **LF**

A = Type
1 (Type A)
2 (Type B)
3 (Type R)
9 (Special) Not Type A, B, or R; C= 8 or 9

B = Nominal Fabric Height
1 (0.0- 5.0' Height) Note: Type A Standard; may be used for other types
2 (5.1- 6.0' Height) Note: Type B Standard; may be used for other types
3 (6.1- 7.0' Height)
4 (7.1- 8.0' Height)
5 (8.1-10.0' Height)

C = Details/Features
0 (Standard features) No coating, barbed wire, or other special features
1 (w/Barbed Wire Attachment), Type B Only
2 (w/Vinyl Coating), Type B Only
3 (Full Enclosure), Type R Only
4 (Partial Enclosure), Type R Only
5 (Vertical) Type R Only
8 (Reset Existing) see detail for measurement
9 (Special Feature) Features), other than coating, barbs, or enclosure

**Notes** *A= Special for non-standard types (wood fence?)
*C= Special for other than coatings or enclosure
*A or C =9 may require Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0550 10110 | FENCING, TYPE A, 0.0-5.0', STANDARD | LF | | 1/1/2010 | |
| 0550 10118 | FENCING, TYPE A, 0.0-5.0', TYPE A STANDARD, RESET EXISTING | LF | | 1/1/2010 | |
| 0550 10120 | FENCING, TYPE A, 5.1-6.0, STANDARD | LF | | 1/1/2010 | |
| 0550 10130 | FENCING, TYPE A, 6.1-7.0, STANDARD | LF | | 1/1/2010 | |
| 0550 10140 | FENCING, TYPE A, 7.1-8.0', STANDARD | LF | | 1/1/2010 | |
| 0550 10150 | FENCING, TYPE A, 8.1-10.0', STANDARD | LF | | 1/1/2010 | |
| 0550 10210 | FENCING, TYPE B, 0.0-5.0', STANDARD FEATURES | LF | | 1/1/2010 | |
| 0550 10212 | FENCING, TYPE B, 0.5-5.0, W/ VINYL COATING | LF | | 1/1/2010 | |
| 0550 10218 | FENCING, TYPE B, 0.0-5.0', RESET EXISTING | LF | | 1/1/2010 | |
| 0550 10220 | FENCING, TYPE B, 5.1-6.0, STANDARD | LF | | 1/1/2010 | |
| 0550 10221 | FENCING, TYPE B, 5.1-6.0, W/ BARB WIRE ATTMT | LF | | 1/1/2010 | |
| 0550 10222 | FENCING, TYPE B, 5.1-6.0, W/ VINYL COATING | LF | | 1/1/2010 | |
| 0550 10228 | FENCING, TYPE B, 5.1-6.0, RESET EXISTING | LF | | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0550 10229 | FENCING, TYPE B, 5.1-6.0, SPECIAL FEATURES | LF | | 1/1/2010 |
| 0550 10230 | FENCING, TYPE B, 6.1-7.0', STANDARD | LF | | 1/1/2010 |
| 0550 10231 | FENCING, TYPE B, 6.1-7.0, W/ BARB WIRE ATTMT | LF | | 1/1/2010 |
| 0550 10232 | FENCING, TYPE B, 6.1-7.0, W/ VINYL COATING | LF | | 1/1/2010 |
| 0550 10238 | FENCING, TYPE B, 6.1-7.0, RESET EXISTING | LF | | 1/1/2010 |
| 0550 10240 | FENCING, TYPE B, 7.1-8.0', STANDARD | LF | | 1/1/2010 |
| 0550 10242 | FENCING, TYPE B, 7.1-8.0', VINYL COATING | LF | | 1/1/2010 |
| 0550 10248 | FENCING, TYPE B, 7.1-8.0, RESET EXISTING | LF | | 1/1/2010 |
| 0550 10250 | FENCING, TYPE B, 8.1-10.0', STANDARD FEATURES | LF | | 1/1/2010 |
| 0550 10251 | FENCING, TYPE B, 8.1-10.0', WITH BARBED WIRE ATTMT | LF | | 1/1/2010 |
| 0550 10252 | FENCING, TYPE B, 8.1-10.0', VINYL COATING | LF | | 1/1/2010 |
| 0550 10259 | FENCING, TYPE B, 8.1-10.0', SPECIAL | LF | | 1/1/2010 |
| 0550 10315 | FENCING, TYPE R, 0-5.0', VERTICAL | LF | | 1/1/2010 |
| 0550 10325 | FENCING, TYPE R, 5.1-6.0', VERTICAL | LF | | 1/1/2010 |
| 0550 10335 | FENCING, TYPE R, 6.1-7.0', VERTICAL | LF | | 1/1/2010 |
| 0550 10343 | FENCING, TYPE R, 7.1-8.0, W/FULL ENCLOSURE | LF | | 1/1/2010 |
| 0550 10344 | FENCING, TYPE R, 7.1-8.0, W / PARTIAL ENCLOSURE | LF | | 1/1/2010 |
| 0550 10353 | FENCING, TYPE R, 8.1 - 10.0', WITH FULL ENCLOSURE | LF | | 1/1/2010 |
| 0550 10354 | FENCING, TYPE R, 8.1-10.0', WITH PARTIAL ENCLOSURE, TYPE R ONLY | LF | | 1/1/2010 |
| 0550 10918 | FENCING, SPECIAL TYPE, 0.0-5.0', RESET EXISTING | LF | T | 1/1/2010 |
| 0550 10919 | FENCING, SPECIAL TYPE, 0.0-5.0', SPECIAL FEATURES | LF | T | 1/1/2010 |
| 0550 10929 | FENCING, SPECIAL TYPE, 5.1-6.0', SPECIAL FEATURES | LF | T | 1/1/2010 |
| 0550 10938 | FENCING, SPECIAL TYPE, 6.1-7.0', RESET EXISTING | LF | T | 1/1/2010 |
| 0550 10948 | FENCING, SPECIAL TYPE, 7.1-8.0', RESET EXISTING | LF | T | 1/1/2010 |
| 0550 10959 | FENCING, SPECIAL TYPE, 8.1-10.0', SPECIAL FEATURES | LF | T | 1/1/2010 |

## 550- 60-ABC FENCE GATE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Fence to be installed in accordance with standards, Index Nos. 800-812.

Special: Tech Spec and/or plan details required to specify materials, installation, and payment. Do not use "special" item for type A, B, or R fencing.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended** 550-10-ABC

**Design Forms and Documentation**

SBFence: Summary of Fence (no posts); SBFence Type A: Summary of Fence, Type A w/Posts; or SBFence Type B: Summary of Fence, Type B w/ Posts

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Indexes 800, 801, 802, 803, 810, 811, 812

**Specifications** Section 550

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **550- 60-ABC** **FENCE GATE** **EA**

A = Type
1 (Type A)
2 (Type B)
9 (Special) *Not Type A or B

B = Type
1 (Single)
2 (Double)
3 (Sliding / Cantilever)

C = Size of Opening
1 (0-6.0’ Opening)
2 (6.1-12.0’ Opening)
3 (12.1-18.0’ Opening)
4 (18.1-20.0’ Opening)
5 (20.1-24.0’ Opening)
6 (24.1-30.0’ Opening)
7 (Greater than 30’ Opening)

**Notes** * Special may require Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0550 60111 | FENCE GATE, TYPE A, SINGLE, 0-6.0' OPENING | EA | | 1/1/2010 | |
| 0550 60112 | FENCE GATE, TYPE A, SINGLE, 6.1-12.0' OPENING | EA | | 1/1/2010 | |
| 0550 60122 | FENCE GATE, TYPE A, DOUBLE, 6.1-12.0' OPENING | EA | | 1/1/2010 | |
| 0550 60123 | FENCE GATE, TYPE A, DOUBLE, 12.1-18.0' OPENING | EA | | 1/1/2010 | |
| 0550 60124 | FENCE GATE, TYPE A, DOUBLE, 18.1-20.0' OPENING | EA | | 1/1/2010 | |
| 0550 60125 | FENCE GATE, TYPE A, DOUBLE, 20.1-24.0' OPENING | EA | | 1/1/2010 | |
| 0550 60126 | FENCE GATE, TYPE A, DOUBLE, 24.1-30.0' OPENING | EA | | 1/1/2010 | |
| 0550 60127 | FENCE GATE, TYPE A, DOUBLE, GREATER THAN 30' OPENNING | EA | | 1/1/2010 | |
| 0550 60134 | FENCE GATE, TYPE A, SLIDING/CANTILEVER, 18.1-20.0' OPENING | EA | | 1/1/2010 | |
| 0550 60135 | FENCE GATE, TYPE A, SLIDING/CANTILEVER, 20.1-24.0' OPENING | EA | | 1/1/2010 | |
| 0550 60211 | FENCE GATE, TYPE B, SINGLE, 0- 6.0' OPENING | EA | | 1/1/2010 | |
| 0550 60212 | FENCE GATE, TYPE B, SINGLE, 6.1 - 12.0' OPENING | EA | | 1/1/2010 | |
| 0550 60213 | FENCE GATE, TYPE B, SINGLE, 12.1-18.0' OPENING | EA | | 1/1/2010 | |
| 0550 60214 | FENCE GATE, TYPE B, SINGLE, 18.1-20.0' OPENING | EA | | 1/1/2010 | |
| 0550 60222 | FENCE GATE, TYPE B, DOUBLE, 6.1-12.0' OPENING | EA | | 1/1/2010 | |
| 0550 60223 | FENCE GATE, TYPE B, DOUBLE, 12.1-18.0' OPENING | EA | | 1/1/2010 | |
| 0550 60224 | FENCE GATE, TYPE B, DOUBLE, 18.1-20.0' OPENING | EA | | 1/1/2010 | |
| 0550 60225 | FENCE GATE , TYPE B, DOUBLE, 20.1-24' OPENING | EA | | 1/1/2010 | |
| 0550 60226 | FENCE GATE , TYPE B, DOUBLE, 24.1-30.0' OPENING | EA | | 1/1/2010 | |
| 0550 60227 | FENCE GATE, TYPE B, DOUBLE, GREATER THAN 30' OPENNING | EA | | 1/1/2010 | |
| 0550 60232 | FENCE GATE, TYPE B, SLIDING/CANTILEVER, 6.1-12' OPENING | EA | | 1/1/2010 | |
| 0550 60233 | FENCE GATE, TYPE B, SLIDING/CANTILEVER, 12.1-18' OPENING | EA | | 1/1/2010 | |
| 0550 60234 | FENCE GATE, TYPE B, SLIDING/CANTILEVER, 18.1-20.0' OPENING | EA | | 1/1/2010 | |
| 0550 60235 | FENCE GATE, TYPE B, SLIDING/CANTILEVER, 20.1-24' OPENING | EA | | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0550 60236 | FENCE GATE, TYPE B, SLIDING/CANTILEVER, 24.1-30' OPENING | EA | | 1/1/2010 |
| 0550 60237 | FENCE GATE, TYPE B, SLIDING/CANTILEVER, GREATER THAN 30' OPENNING | EA | | 1/1/2010 |
| 0550 60914 | FENCE GATE, SPECIAL TYPE, SINGLE, 18.1-20' OPENING | EA | T | 1/1/2010 |
| 0550 60927 | GATE, SPECIAL TYPE, DOUBLE, >30' OPENING | EA | T | 1/1/2010 |
| 0550 60934 | FENCE GATE, SPECIAL TYPE, SLIDING/CANTILEVER, 18.1-20' OPENING | EA | T | 1/1/2010 |
| 0550 60935 | FENCE GATE, SPECIAL TYPE, SLIDING/CANTILEVER, 20.1-24' OPENING | EA | T | 1/1/2010 |

## 555- 1- A DIRECTIONAL BORE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Payment will include work and materials, including casing, to be installed in accordance with specified method. Review alternate installation methods to determine best method for each location/crossing.

Through June 2011 lettings: Per Specification, Bundled products in a single bore will be paid as a single bore, based on the required drill bit head or back reamer head size. Separate payment shall not be made for individual products in a bundle.

Effective July 2011 lettings: Per specification, Bundled products in a single bore will be paid as a single bore, based on the equivalent outside pipe diameter (not restrained joint diameter). The cost to populate the installed product (such as wires pipes, or carriers/conduit/casers/ducts) will be paid separately.

This item should be loaded into the category for which the item is used (Roadway, Lighting, Signals, etc.) The Item may appear on multiple categories, as needed.

**Related Items** **Required** **Recommended** 556-1-xaa, 557-1-xxa

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 555

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **555- 1- A** **DIRECTIONAL BORE** **LF**

A = Diameter Of Pipe/Conduit*
1 (Less Than 6")
2 ( 6" to <12")
3 (12" to <18")
4 (18" to <24")
5 (24" to <36")
6 (36" to <48")
7 (48" to <60")

**Notes** Additional Ranges At 12" Increments
*Refer to detail information when working with bundled products

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0555 1 1 | DIRECTIONAL BORE, LESS THAN 6" | LF | | 1/1/2010 | |
| 0555 1 2 | DIRECTIONAL BORE, 6" TO < 12" | LF | | 1/1/2010 | |
| 0555 1 3 | DIRECTIONAL BORE, 12" TO < 18" | LF | | 1/1/2010 | |
| 0555 1 4 | DIRECTIONAL BORE, 18" TO < 24" | LF | | 1/1/2010 | |
| 0555 1 5 | DIRECTIONAL BORE, 24" TO < 36" | LF | | 1/1/2010 | |
| 0555 1 6 | DIRECTIONAL BORE, 36" TO < 48" | LF | | 1/1/2010 | |
| 0555 1 7 | DIRECTIONAL BORE, 48" TO < 60" | LF | | 1/1/2010 | |

**556- 1- A** **JACK AND BORE**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Payment will include work and materials, including casing, to be installed in accordance with specified method. Review alternate installation methods to determine best method for each location/crossing.

This item should be loaded into the category for which the item is used (Roadway, Lighting, Signals, etc.) The Item may appear on multiple categories, as needed.

**Related Items** **Required** **Recommended** 556-1-xaa, 557-1-xxa

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 556

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **556- 1- A** **JACK AND BORE** **LF**

AA = Diameter Of Casing
1 ( <6")
2 ( 6" to < 12")
3 ( 12" to < 18")
4 ( 18" to < 24")
5 ( 24" to < 36")
6 ( 36" to < 48")
7 ( 48" to < 60")
8 ( 60" to < 72")
9 ( 72" to < 84")
10 (84" to < 96")
11 (96" to < 108")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0556 1 1 | JACK AND BORE, CASING DIAMETER <6" | LF | | 1/1/2010 | |
| 0556 1 2 | JACK AND BORE, CASING DIAMETER 6"TO<12" | LF | | 1/1/2010 | |
| 0556 1 3 | JACK AND BORE, CASING DIAMETER 12"TO<18" | LF | | 1/1/2010 | |
| 0556 1 4 | JACK AND BORE, CASING DIAMETER 18"TO<24" | LF | | 1/1/2010 | |
| 0556 1 5 | JACK AND BORE, CASING DIAMETER 24"TO<36" | LF | | 1/1/2010 | |
| 0556 1 6 | JACK AND BORE, CASING DIAMETER, 36" TO <48" | LF | | 1/1/2010 | |
| 0556 1 7 | JACK AND BORE, CASING DIAMETER 48"TO<60" | LF | | 1/1/2010 | |
| 0556 1 8 | JACK AND BORE, CASING DIAMETER 60"TO<72" | LF | | 1/1/2010 | |
| 0556 1 9 | JACK AND BORE, CASING DIAMETER 72"TO<84" | LF | | 1/1/2010 | |
| 0556 1 10 | JACK AND BORE, CASING DIAMETER 84"TO<96" | LF | | 1/1/2010 | |
| 0556 1 11 | JACK AND BORE, CASING DIAMETER 96"TO<108" | LF | | 1/1/2010 | |

**557- 1- A** **VIBRATORY PLOWING**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Effective January 03: Payment will include work and materials, including casing, to be installed in accordance with specified method. Review alternate installation methods to determine best method for each location/crossing.

This item should be loaded into the category for which the item is used (Roadway, Lighting,

Signals, etc.) The Item may appear on multiple categories, as needed.

**Related Items** **Required** **Recommended** 556-1-xaa, 557-1-xxa

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 557

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **557- 1- A** **VIBRATORY PLOWING** **LF**

A = Diameter Of Casing
1 ( < 6")
2 ( 6" to < 12")
3 (12" to < 18")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 560- 1- PAINTING STRUCTURAL STEEL- REHAB

**Unit** LS/TN; LS/MT **Accuracy** Lump Sum (Ton); Lump Sum (Metric Ton) **PlanQuantity?** yes

**Notes**

**Specification and pay item for rehab painting valid through 6-30-10. New 561 pay item and specification valid for July 2010.**

**Details**

Intended for rehabilitation projects. For new bridges, the cost of painting is included in the cost of the structural steel. Do not include quantities in the plans. The weight of the steel to be painted is for estimating purposes only.

Tech Spec required for Rehab painting (Projects let through 6/2010).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 560

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0100 Structures

**Struct.** **560- 1-** **PAINTING STRUCTURAL STEEL- REHAB** **LS/TN**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 561- 1- COATING EXISTING STRUCTURAL STEEL

**Unit** LS/TN; LS/MT **Accuracy** Lump Sum (Ton); Lump Sum (Metric Ton) **PlanQuantity?** yes

**Notes** **New pay items and specifications implemented for July 2010 letting.**

**Details** Coordinate the use of this item with the District Materials Office and the State Materials Office.

Consists of removing and replacing the existing coating, or using an overcoating system. Do not include quantities in the plans. The weight of the steel to be painted is for estimating purposes only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-05: Lump Sum Quantities

Use a quantity of 1, but calculations and computation book documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **561- 1-** **COATING EXISTING STRUCTURAL STEEL** **LS/TN**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0561 1 | COATING EXISTING STRUCTURAL STEEL | LS | | 7/1/2010 | |
| 0561 1 | COATING EXISTING STRUCTURAL STEEL | LS | | 7/1/2010 | |

## 563- A ANTI-GRAFFITI COATING

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details**

Coordinate the use of this item with District Maintenance Office. Consists of furnishing and applying anti-graffiti coating to the surfaces indicated in the plans. The work also includes surface preparations prior to application of the coating. All coatings are to be clear, unless otherwise specified in the plans, or approved by the Engineer. Pay Item specifies whether material is sacrificial or non-sacrificial.
Measurement is based on the projected area of the wall (height x length) or surface, with no additional allowance for surface texture.
**********
For projects let before 7/2008, measurement/payment will be based on measured area, as indicated above.
For projects let 7/2008 and later, measurement will be based on plan quantity, as indicated above.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Section 563

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 100 or 200 Structures or Roadway

**Struct.** **563- A** **ANTI-GRAFFITI COATING** **SF**

A =
3 (Sacrificial)
4 (Non – Sacrificial)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0563 3 | ANTI-GRAFFITI COATING, SACRIFICIAL | SF | | 1/1/2010 | |
| 0563 4 | ANTI-GRAFFITI COATING, NON-SACRIFICIAL | SF | | 1/1/2010 | |

## 570- 1- A PERFORMANCE TURF

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes** **Effective July 2010, Mowing is paid separately. Refer to Estimates/Roadway Design Bulletin and specifications Section 107 for details.**

**Details** Consists of establishing a stand of grass on slopes, shoulders, or other areas by seeding (includes seeding, seeding & mulching, hydroseeding, bonded fiber matrix, or any combination), or sodding, in accordance with Section 570.
Coordinate the use of this item with Sections 104, 107, 162, and 580.

Through June 2010 lettings: This item includes the mowing of all areas, including undisturbed areas, within the project limits, as noted in the plans. DO NOT use item 104-4 when this item is used. Payment for all mowing is incidental to the turf payment.

Effective July 2010 letting: Litter Removal and Mowing are paid separately under Section 107.

Per Section 570 specification, the Statewide Disputes Review Board specifications must be included on projects with this item.

SHOULDER SODDING: When Performance Turf is used in accordance with Index 105-Treatment II, separate payment for Finished Soil Layer should also be included. Refer to specification section 162 and index no. 105 for additional information.

**Related Items** **Required** **Recommended** 162-1 Prepared Soil Layer

**Design Forms and Documentation** SBSodding: Summary of Performance Turf & Sod, or
COMP 700-050-01: Area Computation and Contunuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** 700-050-55: Daily Log Sheet Grassing Items Site Source Record

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 105 for shoulder sodding and turf on existing facilities

**Specifications** Section 570

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **570- 1- A** **PERFORMANCE TURF** **SY**

A= Type
1 *leave secondary description blank- Contractor's Option

2 (Sod)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0570 1 1 | PERFORMANCE TURF | SY | | 1/1/2010 | |
| 0570 1 2 | PERFORMANCE TURF, SOD | SY | | 1/1/2010 | |

## 571- 1- AB PLASTIC EROSION MAT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes**

**Details**

Geosynthetic rolled erosion control product that retains soil, moisture, and seed; promotes vegetative growth while preventing erosion in ditches, channels, and spillways. to be used where conditions prevent vegetation that lasts past a single growing season.

Design standard 199 lists standard criteria/material properties. Plans/Specs need to detail installation requirements and compensation.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 199

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **571- 1- AB** **PLASTIC EROSION MAT** **SY**

A =Application
1 (TRM) “Turf Reinforcement Mat”

B =Type
1 (Type 1)
2 (Type 2)
3 (Type 3)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0571 1 11 | PLASTIC EROSION MAT, TURF REINFORCED MAT, TYPE 1 | SY | | 1/1/2010 | |
| 0571 1 12 | PLASTIC EROSION MAT, TRM, TYPE 2 | SY | | 1/1/2010 | |
| 0571 1 13 | PLASTIC EROSION MAT, TURF REINFORCED MAT, TYPE 3 | SY | | 1/1/2010 | |

## 580- 1- A LANDSCAPE COMPLETE

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

This item is for the complete installation of plants, in accordance with Specification Section 580, including all incidental work. The designer should coordinate plan details with installation requirements shown in the specifications.

Through June 2010: Mowing included as part of the landscape work will be identified in the contract documents. If mowing is required outside of the landscape areas, use pay item 104-4, unless 570-1-A is included.

July 2010 and later: Mowing included as part of the landscape work will be identified in the contract documents. If mowing is required outside of the landscape areas, use pay item 107-2.

Small plants includes all ground covers, shrubs to less than 7 gallon, trees to less than 7 gallon, palms clustering type less than 6 foot overall height, cycads to less than 7 gallon. Incidentals, as shown in the landscaping plans, should be included on the tabulation sheet for payment along with small plans.

Large plants include shrubs 7 gallon or greater, trees 7 gallon or greater, all palms single trunk, palms clustering type 6 foot overall height and greater, cycads 7 gallon or greater, all Sabal palms (aka Sabal palmetto, cabbage palm, state tree)

Refer to the latest edition of the Florida Grades and Standards for Nursery Plants for classification. All plants must be detailed in the plans in accordance with Volume 2, Chapter 26 of the PPM. See also PPM Vol 1, Chapter 9.

The computation book will use form 70-050-05 Lump Sum Quantities. On the form, refer to the plans tabulation sheet for calculations; do not repeat tabulation sheet information on the comp book form.

All 580 and 590 items must be loaded in TRNS*PORT Category 0600. If there are only a few items, they may be shown in roadway plans, but tabulated with "Summary of Landscape Pay Items" in Category 0600.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqld: Landscape Tabulation of Quantity Sheet, or
SHTabQuantLD2: Landscape Tabulation or Quantities

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter** Vol 1, Chapter 9; Vol 2, Chapter 26

**Trns·port**

**Other**

**Standards**

**Specifications** Section 580

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0600 Landscaping

**Struct.** **580- 1- A** **LANDSCAPE COMPLETE** **LS/LS**

A= Plant Size
1 ( Small Plants) Includes incidental landscape work
2 (Large Plants)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0580 1 1 | LANDSCAPE COMPLETE- SMALL PLANTS | LS | | 1/1/2010 | |
| 0580 1 2 | LANDSCAPE COMPLETE- LARGE PLANTS | LS | | 1/1/2010 | |

## 590- 70- IRRIGATION SYSTEM

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

All 580 and 590 items must be loaded in TRNS*PORT Category 0600. If there are only a few items, they may be shown in roadway plans, but tabulated with "Summary of Landscape Pay Items" in Category 0600.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0600 Landscaping

**Struct.** **590- 70-** **IRRIGATION SYSTEM** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0590 70 | IRRIGATION SYSTEM | LS | T | 1/1/2010 | |

# BOE

## Basis of Estimates

*Chapter 16*

*Items 600 to 699*

State Specifications and Estimates Office
Estimating Systems Support Section

## 604- 3- A TIMING IMPLEMENTATION

**Unit** PI **Accuracy** Per Intersection **PlanQuantity?** no

**Notes** **Contact the State Traffic Ops office prior to using this item. BOE Details needed.**

**Details** This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **604- 3- A** **TIMING IMPLEMENTATION** **PI**

A = Controller Type
1 (Controller)
2 (Controller And Coordination Unit)
3 (Master Clock Unit)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0604 3 1 | TIMING IMPLEMENTATION, CONTROLLER | PI | T | 1/1/2010 | |
| 0604 3 2 | TIMING IMPLEMENTATION, CONTROLLER & COORDINATION UNIT | PI | T | 1/1/2010 | |
| 0604 3 3 | TIMING IMPLEMENTATION, MASTER CLOCK UNIT | PI | T | 1/1/2010 | |

## 630- 1- AB SIGNALS- CONDUIT

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

Use 'Underground' in locations where the placement of the conduit will not necessitate saw-cutting of pavement. Most conduit placed on new construction projects will be placed underground prior to the placement of pavement, and should be paid for as 'Underground.' 'Underpavement' should be used when it is necessary to saw-cut and backfill the pavement

in order to place the conduit, i.e. EXISTING PAVEMENT.

NOTE: per the specifications (Section 630), payment for conduit used for fiber optic applications includes the locate wire and testing.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqsg: Signalization Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS for Items 630- 1- 11 thru 630- 1- 22

**Other**

**Standards** Index No. 17721

**Specifications** Section 630
Min Specs: Section A630

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **630- 1- AB** **SIGNALS- CONDUIT** **LF**

A = Operation
1 (Furnish & Install)

B = Conduit Installation Type
1 (Aboveground)
2 (Underground)
3 (Underpavement Sawcut) Note: Only when sawcutting is necessary for location under EXISTING PAVEMENT
4 (Underground - Jacked)
5 (Bridge Mount)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0630 1 11 | CONDUIT - SIGNALS, FURNISH & INSTALL, ABOVEGROUND | LF | | 1/1/2010 | |
| 0630 1 12 | CONDUIT - SIGNALS, FURNISH & INSTALL, UNDERGROUND | LF | | 1/1/2010 | |
| 0630 1 13 | CONDUIT - SIGNALS, FURNISH & INSTALL, SAWCUT & PLACE UNDER EXISTING PAVEMENT | LF | | 1/1/2010 | |
| 0630 1 14 | CONDUIT, SIGNALS, F & I, UNDERGROUND - JACKED | LF | | 1/1/2010 | |
| 0630 1 15 | CONDUIT, SIGNALS, F & I, BRIDGE MOUNT | LF | | 1/1/2010 | |

**632- 6- A** **SIGNALS- CABLE OUTSIDE OF INTERSECTION**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

Use for runs to flashing beacon, signs, etc. beyond the normal limits of the intersection. Includes cable, support wire, cable ties, cable clamps, lashing wire, terminal connectors and cable grounding. Use item 632- 7- (2632- 7-) for cable within the intersection.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other**

**Standards** Index No. 17727

**Specifications** Min Specs: Section A632

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **632- 6- A** **SIGNALS- CABLE OUTSIDE OF INTERSECTION** **LF**

A = Operation
1 (Furnish & Install)
3 (Install) Furnished by FDOT or Local Agency
4 (Adjust)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0632 6 1 | CABLE - SIGNAL, FURNISH & INSTALL | LF | | 1/1/2010 | |
| 0632 6 3 | CABLE - SIGNAL, INSTALL | LF | | 1/1/2010 | |

## 632- 7- A SIGNALS- CABLE WITHIN INTERSECTION

**Unit** PI **Accuracy** Per Intersection **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

Includes cable, support wire, cable ties, cable clamps, lashing wire, terminal connectors and cable grounding, within the normal limits of the intersection. Consider 632- 6- (2632- 6-) for runs outside the limits of the intersection.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards** Index No. 17727

**Specifications** Section 632
Min Specs: Section A632

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **632- 7- A** **SIGNALS- CABLE WITHIN INTERSECTION** **PI**

A = Operation
1 (Furnish & Install)
4 (Adjust)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0632 7 1 | CABLE, SIGNAL, FURNISH & INSTALL | PI | | 1/1/2010 | |
| 0632 7 4 | CABLE SIGNAL, ADJUST | PI | | 1/1/2010 | |

## 632- 8-ABC SIGNALS- INTERCONNECT CABLE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

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: Plans or specs should clearly identify the item and initial/final locations. As needed, detail incidental items to be furnished by the Contractor for a complete installation. Clearly identify conditions under which item replacement (damaged by contractor) is needed.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS for Items 632- 8-111 thru 632- 8-131, 632- 8-211 thru 632-8-222, and 632- 8-311 thru 632- 8-422

**Other Standards** Index No. 17733

**Specifications** Section 632
Min Specs: Section A632

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **632- 8-ABC** **SIGNALS- INTERCONNECT CABLE** **LF**

A = Number Of Pairs
1 (to Be Determined By Contractor)
2 ( 1- 25)
3 ( 26- 50)
4 ( 51-100)
5 (101-150)

B = Operation
1 (Furnish & Install)
3 (Install)
4 (Relocate) A=1, C=0
For remove, see item 690-91

C = Type Of Interconnect Cable Installation
0 used for relocate item; details in plans
1 (Aerial)
2 (Underground)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0632 8112 | CABLE, INTERCONNECT, PAIRS - DETERMINED BY CONTRACTOR, F&I, UNDER GROUND | LF | | 1/1/2010 | |
| 0632 8131 | CABLE, INTERCONNECT, PAIRS - DETERMINED BY CONTRACTOR, INSTALL, AERIAL | LF | | 1/1/2010 | |
| 0632 8140 | CABLE, INTERCONNECT, PAIRS - DETERMINED BY CONTRACTOR, RELOCATE | LF | | 1/1/2010 | |
| 0632 8211 | CABLE, INTERCONNECT, 1- 25, F&I, AERIAL | LF | | 1/1/2010 | |
| 0632 8212 | CABLE, INTERCONNECT, 1-25 PAIRS, F&I, UNDERGROUND | LF | | 1/1/2010 | |
| 0632 8231 | CABLE, INTERCONNECT, 1-25 PAIRS, INSTALL, AERIAL | LF | | 1/1/2010 | |
| 0632 8232 | CABLE, INTERCONNECT, 1-25 PAIRS, INSTALL, UNDERGROUND | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0632 8311 | CABLE, INTERCONNECT, 26-50 PAIRS, F&I, AERIAL | LF | 1/1/2010 |
| 0632 8312 | CABLE, INTERCONNECT, 26-50 PAIRS, F&I, UNDERGROUND | LF | 1/1/2010 |
| 0632 8412 | CABLE, INTERCONNECT, 51-100 PAIRS, F&I, UNDERGROUND | LF | 1/1/2010 |

## 633- 1-ABC SIGNALS- FIBER OPTIC CABLE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **New items for Signals use, pending spec approval.**

**Details** For use in fiber optic networks that support ITS devices and their connection to communication hubs, transportation management centers, and related facilities.
Use "overhead" for installations involving bridges and other aboveground structures. Use "underground" for cable placed in buried conduit along the roadside.
*******
REMOVE (A=6): For cable to be removed, detail location and size of cable (approximate number of fibers) to be removed. Contractor takes ownership (remove & dispose), unless otherwise indicated in the plans or specs.
REMOVE & STOCKPILE (A=7): For cable to be removed, detail location and size of cable (approximate number of fibers) to be removed. FDOT retains ownership of cable. Detail in plans location for stockpile, i.e. Maintenance yard.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter** Vol 1, Chapter 7
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **633- 1-ABC** **SIGNALS- FIBER OPTIC CABLE** **LF**

A= Operation
1 (Furnish & Install)
3 (Install) Furnished by FDOT or local agency; C=0
4 (Relocate) C=0
6 (Remove) BC=00
7 (Remove and Stockpile) BC=00

B= Location
1 (Overhead)
2 (Underground)

C= Number of Fibers in Cable
1 (2 to 12)
2 (13 to 48)
3 (49 to 96)
4 (97 to 144)

**Notes** *Remove item may require plan details and/or tech spec

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0633 1111 | SIGNALS FIBER OPTIC CABLE, F&I, OVERHEAD,2-12 FIBERS | LF | T | 1/1/2010 | |
| 0633 1112 | SIGNALS FIBER OPTIC CABLE, F&I, OVERHEAD,13-48 FIBERS | LF | T | 1/1/2010 | |
| 0633 1113 | SIGNALS FIBER OPTIC CABLE, F&I, OVERHEAD,49-96 FIBERS | LF | T | 1/1/2010 | |
| 0633 1121 | SIGNALS FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS | LF | T | 1/1/2010 | |
| 0633 1122 | SIGNALS FIBER OPTIC CABLE, F&I, UNDERGROUND,13-48 FIBERS | LF | T | 1/1/2010 | |
| 0633 1123 | SIGNALS FIBER OPTIC CABLE, F&I, UNDERGROUND,49-96 FIBERS | LF | T | 1/1/2010 | |
| 0633 1410 | SIGNALS FIBER OPTIC CABLE, RELOCATE, OVERHEAD | LF | T | 1/1/2011 | |
| 0633 1412 | SIGNALS FIBER OPTIC CABLE, RELOCATE, OVERHEAD, 13-48 | LF | T | 1/1/2010 | 12/31/2010 |
| 0633 1420 | SIGNALS FIBER OPTIC CABLE, RELOCATE, UNDERGROUND | LF | T | 1/1/2011 | |
| 0633 1422 | SIGNALS FIBER OPTIC CABLE, RELOCATE, UNDERGROUND, 13-48 | LF | T | 1/1/2010 | 12/31/2010 |
| 0633 1423 | SIGNALS FIBER OPTIC CABLE, RELOCATE, UNDERGROUND, 49-96 | LF | T | 1/1/2010 | 12/31/2010 |
| 0633 1600 | SIGNALS FIBER OPTIC CABLE, REMOVE | LF | T | 1/1/2010 | |

## 633- 2- AB SIGNALS- FIBER OPTIC CONNECTION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **New items for Signals use, pending spec approval.**

**Details** For use in fiber optic networks where segments of fiber optic cable must be spliced together, or when cables must be terminated at the end of a segment. Note that each connection involves the fusing of individual optical fibers in a cable. Payment "each" is for each FIBER to be connected.
Type of connection must be noted in the plans.

**Related Items** **Required** **Recommended** 783-3

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **633- 2- AB** **SIGNALS- FIBER OPTIC CONNECTION** **EA**

New items for Signals use, pending spec approval.

A= Operation
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

B= Type
1 (Splice)
2 (Termination)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0633 2 31 | SIGNALS- FIBER OPTIC CONNECTION, INSTALL, SPLICE | EA | T | 1/1/2010 | |
| 0633 2 32 | SIGNALS- FIBER OPTIC CONNECTION, INSTALL, TERMINATION | EA | T | 1/1/2010 | |

## 633- 3- AB SIGNALS- FIBER OPTIC CONNECTION HARDWARE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **New items for Signals use, pending spec approval.**

**Details** For use in fiber optic networks, where segments of cable must be spliced together. This item includes hardware and incidental materials for splices; payment for splicing individual fibers is made under 783-2.

For B=8 (Patch Cord), tech spec needed to describe the patch cord requirements. FO patch cords or Cat5 cables may be considered as incidental to the hardware to be installed. Ensure that the plans/specs clearly define if separate payment will be made for patch cords. Otherwise, payment will be considered as incidental to hardware being installed. When multiple cords/cables are needed, use a tabulation sheet in the plans to clearly Identify the number of pairs and length of each cord/cable.

**Related Items** **Required** **Recommended** 783-2

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **633- 3- AB** **SIGNALS- FIBER OPTIC CONNECTION HARDWARE** **EA**

New items for Signals use, pending spec approval.

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

B=Component
1 (Splice Enclosure)
2 (Splice Tray)
3 (Preterminated Connector Assembly)
4 (Buffer Tube Fan Out Kit)
5 (Patch Panel, Preterminated)
6 (Patch Panel, Field Terminated)
7 (Connector Panel)
8 (Patch Cord)* Tech Spec needed; see BOE detail

**Notes** *B=8: Tech Spec needed. Coordinate the use of this item with Traffic Ops Office.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0633 3 11 | SIGNALS- FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE | EA | T | 1/1/2010 | |
| 0633 3 12 | SIGNALS- FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY | EA | T | 1/1/2010 | |
| 0633 3 14 | SIGNALS- FIBER OPTIC CONNECTION HARDWARE, F&I, BUFFER TUBE FAN OUT KIT | EA | T | 1/1/2010 | |
| 0633 3 15 | SIGNALS- FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED PATCH PANEL | EA | T | 1/1/2010 | |
| 0633 3 16 | SIGNALS- FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED | EA | T | 1/1/2010 | |
| 0633 3 17 | SIGNALS- FIBER OPTIC CONNECTION HARDWARE, F&I, CONNECTOR PANEL | EA | T | 1/1/2010 | |
| 0633 3 46 | SIGNALS- FIBER OPTIC CONNECTION HARDWARE, RELOCATE PATCH PANEL- FIELD TERMINATED | EA | T | 1/1/2010 | |

**633-ABC- D** **SIGNALS- FIBER OPTIC CABLE**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Valid through ????, pending implementation of new Section 633 specification.**

**Details** This pay item is for traffic signals and traffic control devices only.
NOT TO BE USED FOR ITS Projects. Refer to 780 items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port** Normally requires SHOP DRAWINGS
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **633-ABC- D** **SIGNALS- FIBER OPTIC CABLE** **LF**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)

B = Type Of Interconnect Cable Installation
1 (Aerial)
2 (Underground)
3 (Drop)

C = Type Of Fiber
1 (Single Mode)
2 (Multi Mode)
3 (Composite)

D = Number Of Fibers In Cable
1 ( 1 - 25)
2 ( 26 - 50)
3 ( 51 - 100)
4 (101 - 150)
5 (151 - 200)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0633111 1 | CABLE FIBER OPTIC, F&I, 1- 25PR, AERIAL, SINGLE | LF | T | 1/1/2010 | |
| 0633111 3 | CABLE FIBER OPTIC, F&I, 51-100PR, AERIAL, SINGLE MODE | LF | T | 1/1/2010 | |
| 0633113 2 | CABLE FIBER OPTIC, F&I, 26- 50 PR, AERIAL, COMPOSITE | LF | T | 1/1/2010 | |
| 0633121 1 | CABLE - FIBER OPTIC, F&I, UNDERGROUND, SGL MODE, 1- 25 PR | LF | T | 1/1/2010 | |
| 0633121 2 | CABLE - FIBER OPTIC, F&I, UNDERGROUND, SGL MODE, 26 - 50PR | LF | T | 1/1/2010 | |
| 0633121 3 | CABLE - FIBER OPTIC, F&I, UNDERGROUND, SGL MODE, 51-100 PR | LF | T | 1/1/2010 | |
| 0633121 4 | CABLE - FIBER OPTIC, F&I, UNDERGROUND, SGL MODE, 101-150 PR | LF | T | 1/1/2010 | |
| 0633122 1 | CABLE - FIBER OPTIC, F&I, UNDERGROUND, MULTI MODE,1- 25 PR | LF | T | 1/1/2010 | |
| 0633122 3 | CABLE - FIBER OPTIC, F&I, UNDERGROUND, MULTI MODE,51-100 PR | LF | T | 1/1/2010 | |
| 0633123 1 | CABLE -FIBER OPTIC, F&I, UNDERGROUND,COMPOSITE, 1 - 25 PR | LF | T | 1/1/2010 | |
| 0633123 2 | CABLE -FIBER OPTIC, F&I, UNDERGROUND,COMPOSITE, 26- 50 PR | LF | T | 1/1/2010 | |
| 0633123 3 | CABLE -FIBER OPTIC, F&I, UNDERGROUND,COMPOSITE, 51-100 PAIR | LF | T | 1/1/2010 | |
| 0633131 1 | CABLE FIBER OPTIC, F&I, 1- 25 PR, DROP, SINGLE MODE | LF | T | 1/1/2010 | |
| 0633131 3 | CABLE -FIBER OPTIC, F&I, DROP, SINGLE MODE, 51 - 100 PR | LF | T | 1/1/2010 | |
| 0633132 1 | CABLE -FIBER OPTIC, F&I, DROP, MULTI MODE, 1 - 25 PR | LF | T | 1/1/2010 | |
| 0633133 1 | CABLE FIBER OPTIC, F&I, DROP, COMPOSITE,1-25 | LF | T | 1/1/2010 | |
| 0633133 2 | CABLE FIBER OPTIC, F&I, DROP, COMPOSITE, 26-50 | LF | T | 1/1/2010 | |
| 0633313 2 | CABLE -FIBER OPTIC, INSTALL, AERIAL, COMPOSITE, 26 - 50 PR | LF | T | 1/1/2010 | |
| 0633421 1 | CABLE - FIBER OPTIC, RELOCA, UNDERGROUND, SGL MODE, 1-25 PR | LF | T | 1/1/2010 | |
| 0633422 1 | CABLE - FIBER OPTIC, RELOCA, UNDERGROUND, MULTI MODE, 1-25 PR | LF | T | 1/1/2010 | |
| 0633431 1 | SIGNALS - FIBER OPTIC CABLE, RELOCA, DROP, SINGLE MODE,1-25 PR | LF | T | 1/1/2010 | |

## 634- 4-ABC SIGNALS- SPAN WIRE ASSEMBLY

**Unit** PI **Accuracy** Per Intersection **PlanQuantity?** no

**Notes**

**Details** This pay item is for permanent traffic signals and traffic control devices only.

For projects let through June 2009, Items for two wire and three wire are valid. Projects may be updated to use Single Point and Two Point pay item descriptions, when changes do not adversely affect production. Refer to 2009 PPM implementation letter.

For projects let July 2009 and later, use the single or two point attachment type pay items, as applicable. (Estimates Bulletin 09-01, 2009 PPM implementation letter.)

Perpendicular spans, box spans or drop box spans shall be used for all signal span wire assemblies. Diagonal span assemblies shall only be used for flashing beacon installations. (2009 PPM- Plans Preparation Manual, Design Bulletin 09-01; Vol 1, Ch 7.4.18)

Other Span Type: Do not use for perpendicular, box, or diagonal spans. Complete plan details are required.

Install Span wire in accordance with Design Standards. For minor installation changes, note details in the plans with standard span type.

OPERATIONS:
Install: Materials furnished by FDOT or local agency.

Adjust: NOT TO BE USED FOR MOT or Temporary Signals. Adjust existing Span Wires, as detailed in the plans.

| **Related Items** | **Required** | **Recommended** |
|---|---|---|
| **Design Forms and Documentation** | tabqsg: Signalization Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter** Vol 1, Ch 7.4.18<br>**Trns·port** Normally requires SHOP DRAWINGS for Items 634- 4-111 thru 634- 4-311<br>**Other Standards** Index No. 17727<br>**Specifications** Section 634<br>**Prep & Doc Manual Chapter(s)** 6, 7, 13 | |

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **634- 4-ABC** **SIGNALS- SPAN WIRE ASSEMBLY** **PI**

A = Operation
1 (Furnish & Install)
3 (Install) Furnished by FDOT or local agency
4 (Adjust) BC=00
Remove: Use item 690-80

B = Type Assembly
1 (Two Wire) valid through 6-30-2009
2 (Three Wire) valid through 6-30-2009

B= Attachment Type
4 (Single Point) effective July 2009, or earlier

5 (Two Point) effective July 2009, or earlier

C = Type Span
1 (Perpendicular)
2 (Diagonal) see details above; flashing beacon installations only
3 (Box)
4 (Other - As Shown In Plans) Details required for approved design variances

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0634 4141 | SPAN WIRE ASSEMBLY, F&I, SINGLE POINT, PERPENDICULAR | PI | | 1/1/2010 | |
| 0634 4142 | SPAN WIRE ASSEMBLY, F&I, SINGLE POINT, DIAGONAL | PI | | 1/1/2010 | |
| 0634 4143 | SPAN WIRE ASSEMBLY, F&I, SINGLE POINT, BOX | PI | | 1/1/2010 | |
| 0634 4151 | SPAN WIRE ASSEMBLY, F&I, TWO POINT, PERPENDICULAR | PI | | 1/1/2010 | |
| 0634 4152 | SPAN WIRE ASSEMBLY, F&I, TWO POINT, DIAGONAL | PI | | 1/1/2010 | |
| 0634 4153 | SPAN WIRE ASSEMBLY, F&I, TWO POINT, BOX | PI | | 1/1/2010 | |
| 0634 4154 | SPAN WIRE ASSEMBLY, F&I, TWO POINT, OTHER TYPE | PI | D | 1/1/2010 | |
| 0634 4341 | SPAN WIRE ASSEMBLY, INSTALL, SINGLE POINT ATTACH, PERPENDICULAR | PI | | 1/1/2010 | |
| 0634 4342 | SPAN WIRE ASSEMBLY, INSTALL, SINGLE POINT ATTACH, DIAGONAL | PI | | 1/1/2010 | |
| 0634 4343 | SPAN WIRE ASSEMBLY, INSTALL, SINGLE POINT ATTACH, BOX SPANS | PI | | 1/1/2010 | |
| 0634 4344 | SPAN WIRE ASSEMBLY, INSTALL, SINGLE POINT ATTACH, OTHER SPAN TYPE | PI | D | 1/1/2010 | |
| 0634 4351 | SPAN WIRE ASSEMBLY, INSTALL, TWO POINT ATTACH, PERPENDICULAR | PI | | 1/1/2010 | |
| 0634 4352 | SPAN WIRE ASSEMBLY, INSTALL, TWO POINT ATTACH, DIAGONAL | PI | | 1/1/2010 | |
| 0634 4353 | SPAN WIRE ASSEMBLY, INSTALL, TWO POINT ATTACH, BOX SPANS | PI | | 1/1/2010 | |
| 0634 4354 | SPAN WIRE ASSEMBLY, INSTALL, TWO POINT ATTACH, OTHER SPAN TYPE | PI | D | 1/1/2010 | |
| 0634 4400 | SPAN WIRE ASSEMBLY, ADJUST | PI | D | 1/1/2011 | |
| 0634 4453 | SPAN WIRE ASSEMBLY,ADJUST, TWO POINT, BOX | PI | | 1/1/2010 | 12/31/2012 |

## 634- 5- A SIGNALS- FIBERGLASS INSULATOR

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

Fiberglass Insulators are to be used on span wires located within 6 feet of overhead electric power lines. Detail length of each insulator in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port** Normally requires SHOP DRAWINGS
**Other Standards**
**Specifications** Section 634
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **634- 5- A** **SIGNALS- FIBERGLASS INSULATOR** **LF**

A = Operation
1 (Furnish & Install)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0634 5 1 | FIBERGLASS INSULATOR, FURNISH & INSTALL | LF | D | 1/1/2010 | |

## 634- 6- A SIGNALS- MESSENGER WIRE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**
This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards** Index No. 17356, 17727

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **634- 6- A** **SIGNALS- MESSENGER WIRE** **LF**

A = Operation
1 (Furnish & Install)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0634 6 1 | MESSENGER WIRE, F&I | LF | T | 1/1/2010 | |

## 634- 7- SIGNALS- CABLE, ADJUST

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

Tech Spec or Plan details to clearly define necessary adjustments to existing span wire assembly. DO NOT USE this item for Maintenance of Traffic adjustments. (Adjustment of new assemblies is incidental to the furnish/install item.)

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **634- 7-** **SIGNALS- CABLE, ADJUST** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0634 7 | ADJUST CABLE- SPAN WIRE ASSEMBLY | EA | T | 1/1/2010 | |

## 635- 1- AB SIGNALS- PULL & JUNCTION BOXES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

NOT TO BE USED FOR ITS Projects. Refer to 780 items.
Use in accordance with Section 635 of the specifications.

Special (B=6): MONITORED ITEM- APPROVAL NEEDED prior to letting; Contact the State Traffic Operations Office- Carl Morse or Ron Meyer.
Detail the size, shape, and material properties in the plans or specifications.

Install (A=3): Item furnished by maintaining agency. Plan details required to inform contractor how to obtain pull & junction box. Include Agency name, contact name & number, storage location, and/or delivery instructions (agency delivery or contractor pick-up).

Relocate (A=4): When a box is to be relocated, specs or plan details should include the removal, protection/relocation, and reinstallation- in accordance with the specs & standards. Depending on the type of box, current condition, and the extent of the relocation, replacement versus relocation should be considered.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS for Items 635- 1- 11 thru 635- 1- 23, and 635- 1- 34

**Other Standards** Index No. 17500, 17503, 17733
(Index No. 17503 valid through July 2009)

**Specifications** Min Specs: Section A635

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **635- 1- AB** **SIGNALS- PULL & JUNCTION BOXES** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) B=0; item furnished by FDOT or local agency
4 (Relocate) B=0

B = Type Of Box
1 (Pull Box)
2 (Aerial Junction Box)
3 (Mounted Junction Box)
5 (Fiber Optics)
6 (Special) MONITORED ITEM- APPROVAL NEEDED From Traffic Ops- see details above

**Notes** * Special may require Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0635 1 11 | PULL & JUNCTION BOXES, F&I, PULL BOX | EA | | 1/1/2010 | |
| 0635 1 12 | PULL & JUNCTION BOXES, F&I, AERIAL JUNCTION BOX | EA | | 1/1/2010 | |
| 0635 1 13 | PULL & JUNCTION BOXES, F&I, MOUNTED JUNCTION BOX | EA | | 1/1/2010 | |
| 0635 1 15 | PULL & JUNCTION BOXES, F&I, FIBER OPTICS | EA | T | 1/1/2010 | |
| 0635 1 16 | PULL & JUNCTION BOXES, F&I, SPECIAL | EA | M | 1/1/2010 | |
| 0635 1 30 | PULL & JUNCTION BOXES, INSTALL | EA | T | 1/1/2010 | |
| 0635 1 40 | PULL & JUNCTION BOXES, RELOCATE | EA | T | 1/1/2010 | |

## 639- 1- AB SIGNALS- ELECTRICAL POWER SERVICE

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 17736
**Specifications** Section 639
Min Specs: Section A639
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct. 639- 1- AB** **SIGNALS- ELECTRICAL POWER SERVICE** **AS**

A = Type Of Service
1 (Overhead)
2 (Underground)

B = Meter Base
1 (Furnished By Power Company)
2 (Purchased By Contractor From Power Company)
3 (Not Required)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0639 1 11 | SIGNALS, ELECTRICAL POWER SERVICE, OVERHEAD, METER FURNISHED BY POWER COMPANY | AS | | 1/1/2010 | |
| 0639 1 12 | SIGNALS, ELECTRICAL POWER SERVICE, OVERHEAD, METER FURNISHED BY CONTRACTOR | AS | | 1/1/2010 | |
| 0639 1 13 | SIGNALS, ELECTRICAL POWER SERVICE, OVERHEAD | AS | | 1/1/2010 | |
| 0639 1 21 | SIGNALS, ELECTRICAL POWER SERVICE, UNDERGROUND, METER FURNISHED BY POWER COMPANY | AS | | 1/1/2010 | |
| 0639 1 22 | SIGNALS,ELECTRICAL POWER SERVICE,UNDERGROUND, PURCHASED BYCONTRACTOR FROM POWER COMPANY | AS | | 1/1/2010 | |
| 0639 1 23 | SIGNALS, ELECTRICAL POWER SERVICE,UNDERGROUND | AS | | 1/1/2010 | |

**639- 2- A** **SIGNALS- ELECTRICAL SERVICE WIRE**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
Payment shall be based on the linear foot (meter) of a single conductor. Refer to Specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**

**Other Standards**

**Specifications** Section 639
Min Specs: Section A639

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **639- 2- A** **SIGNALS- ELECTRICAL SERVICE WIRE** **LF**

A = Operation
1 (Furnish & Install)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0639 2 1 | SIGNALS, ELECTRICAL SERVICE WIRE | LF | | 1/1/2010 | |

## 639- 3- AB SIGNALS- ELECTRICAL SERVICE DISCONNECT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards** Index No. 17736

**Specifications** Section 639
Min Specs: Section A639

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **639- 3- AB** **SIGNALS- ELECTRICAL SERVICE DISCONNECT** **EA**

A = Operation
1 (Furnish & Install)

B = Type Mount
1 (Pole)
2 (Cabinet)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0639 3 11 | SIGNALS, ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT | EA | | 1/1/2010 | |
| 0639 3 12 | SIGNALS, ELECTRICAL SERVICE DISCONNECT, F&I, CABINET | EA | | 1/1/2010 | |

## 639- 4- A SIGNALS- EMERGENCY GENERATOR (PORTABLE)

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes** **Selected items are for Emergency / Pre-Event contract use only.**

**Details** This pay item is for traffic signals and traffic control devices only.

FURNISH & INSTALL: COORDINATE THE USE OF THIS ITEM WITH THE STATE TRAFFIC OPERATIONS OFFICE. Tech Spec needs to address several issues related to the generator: Size, capacity, mounting, maintenance, and security.
*** Generators cannot be furnished to the maintenance yard or maintaining agency using construction funds.***
If Generator is to be installed at the signals location, maintenance agreements should be completed with maintaining agency. Installation details should address securing generator to minimize potential theft.

Install: For Pre-Event or Emergency contracts, coordinate the use of this item with the District Maintenance Office, to ensure the availability of generators. Tech Spec should detail security of generator and instructions for returning unit to FDOT maintenance yard.

Retrofit: Signalized location has been retrofit to accept generator connection.

Not Retrofit: Signalized location has NOT been retrofit to accept generator connection; contractor must complete the retrofit prior to generator installation. Payment for retrofit operation is included in the payment for installing generator.

Monitor & Refuel: Tech Specs should detail monitoring requirements. Fuel to be included in payment for hourly rate. (No separate payment for fuel.)

Install Generator Housing (Item furnished by maintaining agency): Details or Tech Spec should indicate that the contractor is to coordinate with the maintaining agency for pick-up/delivery of the housing to the project site. Contractor will install housing. Details or specs should indicate approximate housing dimensions, and whether a foundation/pad (included in this item for payment) is necessary.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **639- 4- A** **SIGNALS- EMERGENCY GENERATOR (PORTABLE)** **Mixed**

A = Operation
1 (Furnish & Install) Blocked 8-10-08
3 (Install - Retrofit; FDOT furnished) EA; For Emergency /Pre-Event contracts only. Signalized location HAS BEEN RETROFIT to accept generator connection.
4 (Install - Not Retrofit; FDOT furnished) EA; For Emergency /Pre-Event contracts only. Signalized location HAS NOT BEEN RETROFIT to accept generator connection.
5 (Monitor and Refuel) HR; For Emergency /Pre-Event contracts only
6 (Install Generator Housing only) EA; housing furnished by maintaining agency.

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0639 4 3 | EMERGENCY GENERATOR - PORTABLE INSTALL- RETROFIT; FDOT FURNISHED | EA | T | 1/1/2010 | |
| 0639 4 4 | EMERGENCY GENERATOR - PORTABLE, INSTALL- NOT RETROFIT, FDOT FURNISHED | EA | T | 1/1/2010 | |
| 0639 4 5 | EMERGENCY GENERATOR - PORTABLE, MONITOR & REFUEL | HR | T | 1/1/2010 | |
| 0639 4 6 | EMERGENCY GENERATOR - PORTABLE, INSTALL HOUSING ONLY | EA | T | 1/1/2010 | |

## 639- 5- A EMERGENCY GENERATOR- PERMANENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**
**Details**
**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **639- 5- A** **EMERGENCY GENERATOR- PERMANENT** **EA**

A= Generator Size
1 (up to 25 KW)
2 (25-50 KW)
3 (50-

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0639 5 2 | EMERGENCY GENERATOR-PERMANANT 26-50 KW | EA | T | 1/1/2011 | |

## 641- 1- SIGNALS- STRAIN POLES, GUYING, CONCRETE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 17725
**Specifications** Section 641
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **641- 1-** **SIGNALS- STRAIN POLES, GUYING, CONCRETE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0641 1 | STRAIN POLES GUYING, CONCRETE | EA | | 1/1/2010 | |

## 641- 2- AB PRESTRESSED CONCRETE POLES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.
Pole description, including the type, height, and other details must be included in the signal plans.
to be used as detailed on index 17725. Poles must be on QPL list.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
SBStrainPoles: Summary of Strain Poles, or
SHStrainPole: Strain Pole Schedule

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 17725

**Specifications** Section 641

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **641- 2- AB** **PRESTRESSED CONCRETE POLES** **EA**

A= Operation
1 (Furnish & Install)
3 (Install) B=0

B = Pole Type (defined in Design Standards)
1 (Type P-II Pedestal)
2 (Type P-II Service Pole)
3 (Type P-III)
4 (Type P-IV)
5 (Type P-V)
6 (Type P-VI)
7 (Type P-VII)
8 (Type P-VIII)
9 (Custom Design)*

**Notes** *Custom Design requires Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0641 2 11 | PRESTRESSED CONCRETE POLE, F&I, TYPE P-II PEDESTAL | EA | | 1/1/2010 | |
| 0641 2 12 | PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE | EA | | 1/1/2010 | |
| 0641 2 14 | PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV | EA | | 1/1/2010 | |
| 0641 2 15 | PRESTRESSED CONCRETE POLE, F&I, TYPE P-V | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0641 2 16 | PRESTRESSED CONCRETE POLE, F&I, TYPE P-VI | EA | 1/1/2010 |
| 0641 2 17 | PRESTRESSED CONCRETE POLE, F&I, TYPE P-VII | EA | 1/1/2010 |
| 0641 2 18 | PRESTRESSED CONCRETE POLE, F&I, TYPE P-VIII | EA | 1/1/2010 |
| 0641 2 19 | PRESTRESSED CONCRETE POLE, F&I, CUSTOM DESIGN | EA | 1/1/2010 |
| 0641 2 30 | PRESTRESSED CONCRETE POLE, INSTALL | EA | 1/1/2010 |

## 643- 1- STRAIN POLES, GUYING, WOOD

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBStrainPoles: Summary of Strain Poles, or
SHStrainPole: Strain Pole Schedule

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards** Index No. 17356, 17727

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **643- 1-** **STRAIN POLES, GUYING, WOOD** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0643 1 | STRAIN POLES, GUYING, WOOD | EA | | 1/1/2010 | |

## 643-ABB- STRAIN POLES, WOOD

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended** 643- 1- (2643- 1)

**Design Forms and Documentation**

SBStrainPoles: Summary of Strain Poles, or
SHStrainPole: Strain Pole Schedule

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **643-ABB-** **STRAIN POLES, WOOD** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) furnished by local agency
BB = Pole Length (Specified In 5' Increments Only)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0643125 | STRAIN POLE, WOOD, F&I, 25' | EA | | 1/1/2010 | |
| 0643130 | STRAIN POLES, WOOD, FURNISH & INSTALL, 30' | EA | | 1/1/2010 | |
| 0643140 | STRAIN POLE, WOOD, FURNISH & INSTALL, 40' | EA | | 1/1/2010 | |
| 0643145 | STRAIN POLES, WOOD, FURNISH & INSTALL, 45' | EA | | 1/1/2010 | |
| 0643150 | STRAIN POLE, WOOD, F&I, 50' | EA | | 1/1/2010 | |

## 649- 1- AB STEEL STRAIN POLES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
Pole description, including the type, height, and other details must be included in the signal plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SBStrainPoles: Summary of Strain Poles, or
SHStrainPole: Strain Pole Schedule

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **649- 1- AB** **STEEL STRAIN POLES** **EA**

A= Operation
1 (Furnish & Install)
3 (Install) B=0

B = Pole Type (defined in Design Standards)
1 (Type PS-IV)
2 (Type PS - V)
3 (Type PS-VI)
4 (Type PS-VII)
5 (Type PS - VIII)
6 (Type PS-IX)
7 (Type PS - X)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0649 1 13 | STEEL STRAIN POLE, F&I, TYPE PS- VI | EA | | 1/1/2010 | |
| 0649 1 14 | STEEL STRAIN POLE, F&I, TYPE PS- VII | EA | | 1/1/2010 | |
| 0649 1 15 | STEEL STRAIN POLE, F&I, TYPE PS- VIII | EA | | 1/1/2010 | |
| 0649 1 16 | STEEL STRAIN POLE, F&I, TYPE PS- I X | EA | | 1/1/2010 | |
| 0649 1 17 | STEEL STRAIN POLE, F&I, TYPE PS- X | EA | | 1/1/2010 | |

## 649- 1A-BBB MONOTUBE ASSEMBLIES, STEEL

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.

After December 2007: Design Standards are no longer available. Please contact the State Structures Office for assistance. Ensure that the maintaining agency and local authorities have agreed to the use of a monotube. Tech Specs and/or Plan Details will be required for

structural size/shape, material requirements, installation details, and measurement/payment. Foundation is to be included in the price for the complete assembly.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

NOT TO BE USED FOR ITS Projects. Refer to 780 items.
Item used for monotube structures which carry signals. Refer to Plans Preparation Manual, Vol I Chapters 7 and 29, Vol II Chapter 24 for details.
Use Monotube Tabulation Sheet (available from CADD bar menu).

| **Related Items** | **Required** | **Recommended** |
|---|---|---|
| **Design Forms and Documentation** | SHMono Tube: Monotube Tabulation<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | Index No. 17746 (Index valid through 12/2007) |
| | **Specifications** | |
| | | **T: Plan Details and/or Technical Specifications required** |
| | **Prep & Doc Manual Chapter(s)** | 7, 13 |

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **649- 1A-BBB** **MONOTUBE ASSEMBLIES, STEEL** **EA**

A = Operation
1 (Furnish & Install)

BBB = Size
001 (Special) see detail
002 (Special 2) see detail
003 (Special 3) see detail
110 (Standard 110' span)
135 (Standard 135' span)
160 (Standard 160' span)
185 (Standard 185' span)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0649 11160 | STEEL MONOTUBE ASSEMBLY, FURNISH & INSTALL, STANDARD 160' SPAN | EA | T | 1/1/2010 | |
| 0649 11185 | STEEL MONOTUBE ASSEMBLY, FURNISH & INSTALL, STANDARD 185' SPAN | EA | T | 1/1/2010 | |

| 649- 3A-BCC | STEEL MAST ARM ASSEMBLY |
|---|---|

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Effective January 2009: Refer to PPM (Plans Preparation Manual) Vol 1, Chapters 7 and 29 for current FDOT Policy on the use of Mast Arms: in general, only to be used within 10 miles of coastline.**

**Details**

This pay item is for traffic signals and traffic control devices only.
Pole description, including the type, height, and other details must be included in the signal plans. Payment includes foundation, as well as all incidentals, per specifications.

When "w/ Luminaire" is used, detail luminaire requirements in the plans.

BCC=999 (Custom) to be used only when specifications and/or standards do not apply, due to significant design changes. Complete design calculations, including wind loads, are required in the plans.

Note: For minor changes in arm lengths, such as field cuts, use the standard pay item, with a note in the plans for the final length.

When street name signs are to be located on a signals mast arm, tabulate and detail the sign (size, shape, letters, etc.) in the SIGNING plans. Load the pay item in the SIGNING category. The installation location may be shown on the signal plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SHMastArmTab 1 or SHMAstArmTab 2: Signalization Mast Arm Tabulation, or SHSpecialMastArmDsgn or SHStandardMast ArmDsgn: Mast Arm Assembly 17745 or 17743

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, 7.4

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **649- 3A-BCC** **STEEL MAST ARM ASSEMBLY** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)

3 (Install) BCC=000
4 (Relocate) BCC=000

B= Wind Speed
1 (150 with signal backplates)
2 (130 with signal backplates or 150 without signal backplates)
3 (110 with signal backplates)
9 (Custom) CC=99 *See details above

CC= Arm Length(s)
For Single Arm, w/o Luminaire
01 (36)
02 (46)
03 (60)
04 (70.5)
05 (78)
For Single Arm w/ Luminaire- see details above
06 (36)
07 (46)
08 (60)
09 (70.5)
For Double Arm w/o Luminaire
10 (36-36)
11 (36-46)
12 (36-60)
13 (36-70.5)
14 (46-46)
15 (46-60)
16 (46-70.5)
17 (60-60)
18 (60-70.5)
19 (70.5-70.5)
Custom/Non-Standard Arm Combinations
99= (Custom) B=9, *See details above

**Notes** Include Arm Type/luminaire in TRNS*PORT description

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0649 31101 | STEEL MAST ARM,F&I, WIND SPEED-150,SINGLE ARM, W/0 LUMINAIRE-36 | EA | | 1/1/2010 | |
| 0649 31102 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM,W/0 LUMINAIRE-46 | EA | | 1/1/2010 | |
| 0649 31103 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM,W/0 LUMINAIRE-60 | EA | | 1/1/2010 | |
| 0649 31104 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM,W/0 LUMINAIRE-70.5 | EA | | 1/1/2010 | |
| 0649 31105 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM,W/0 LUMINAIRE-78 | EA | | 1/1/2010 | |
| 0649 31106 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM WITH LUMINAIRE-36' | EA | | 1/1/2010 | |
| 0649 31107 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM,WITH LUMINAIRE-46 | EA | | 1/1/2010 | |
| 0649 31108 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM,WITH LUMINAIRE-60 | EA | | 1/1/2010 | |

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|---|---|---|---|
| 0649 31109 | MAST ARM,F&I, WIND SPEED-150,SINGLE ARM,WITH LUMINAIRE-70.5 | EA | 1/1/2010 |
| 0649 31110 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 36-36 | EA | 1/1/2010 |
| 0649 31111 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 36-46 | EA | 1/1/2010 |
| 0649 31112 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 36-60 | EA | 1/1/2010 |
| 0649 31113 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 36-70.5 | EA | 1/1/2010 |
| 0649 31114 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM, W/0 LUMINAIRE, 46-46 | EA | 1/1/2010 |
| 0649 31115 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM, W/0 LUMINAIRE, 46-60 | EA | 1/1/2010 |
| 0649 31116 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 46-70.5 | EA | 1/1/2010 |
| 0649 31117 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 60-60 | EA | 1/1/2010 |
| 0649 31118 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 60-70.5 | EA | 1/1/2010 |
| 0649 31119 | MAST ARM,F&I, WIND SPEED-150,DOUBLE ARM,W/0 LUMINAIRE, 70.5' AND 70.5' | EA | 1/1/2010 |
| 0649 31201 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/0 LUMINAIRE-36 | EA | 1/1/2010 |
| 0649 31202 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/0 LUMINAIRE-46 | EA | 1/1/2010 |
| 0649 31203 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/0 LUMINAIRE-60 | EA | 1/1/2010 |
| 0649 31204 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/0 LUMINAIRE, ARM LENGTH 70.5 | EA | 1/1/2010 |
| 0649 31205 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/0 LUMINAIRE, ARM LENGTH 78 | EA | 1/1/2010 |
| 0649 31206 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/0 LUMINAIRE, ARM LENGTH 36' | EA | 1/1/2010 |
| 0649 31207 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/ LUMINAIRE, ARM LENGTH 46 | EA | 1/1/2010 |
| 0649 31208 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/ LUMINAIRE, ARM LENGTH 60 | EA | 1/1/2010 |
| 0649 31209 | MAST ARM,F&I, WIND SPEED-130,SINGLE ARM,W/ LUMINAIRE, ARM LENGTH 70.5 | EA | 1/1/2010 |
| 0649 31210 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/ LUMINAIRE, ARM LENGTH 36' AND 36' | EA | 1/1/2010 |
| 0649 31211 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 36-46 | EA | 1/1/2010 |
| 0649 31212 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 36-60 | EA | 1/1/2010 |
| 0649 31213 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 36-70.5 | EA | 1/1/2010 |

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|---|---|---|---|
| 0649 31214 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 46' AND 46' | EA | 1/1/2010 |
| 0649 31215 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 46-60 | EA | 1/1/2010 |
| 0649 31216 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 46-70.5 | EA | 1/1/2010 |
| 0649 31217 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 60-60 | EA | 1/1/2010 |
| 0649 31218 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 60-70.5 | EA | 1/1/2010 |
| 0649 31219 | MAST ARM,F&I, WIND SPEED-130,DOUBLE ARM,W/0 LUMINAIRE, 70.5' AND 70.5' | EA | 1/1/2010 |
| 0649 31301 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,W/0 LUMINAIRE-36 | EA | 1/1/2010 |
| 0649 31302 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,W/0 LUMINAIRE-46 | EA | 1/1/2010 |
| 0649 31303 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,W/0 LUMINAIRE-60 | EA | 1/1/2010 |
| 0649 31304 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,W/0 LUMINAIRE-70.5 | EA | 1/1/2010 |
| 0649 31305 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,W/0 LUMINAIRE-78 | EA | 1/1/2010 |
| 0649 31306 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,WITH LUMINAIRE-36 | EA | 1/1/2010 |
| 0649 31307 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,WITH LUMINAIRE-46 | EA | 1/1/2010 |
| 0649 31308 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,WITH LUMINAIRE-60 | EA | 1/1/2010 |
| 0649 31309 | MAST ARM,F&I, WIND SPEED-110,SINGLE ARM,W/ LUMINAIRE-70.5 | EA | 1/1/2010 |
| 0649 31310 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 36' AND 36' | EA | 1/1/2010 |
| 0649 31311 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 36' AND 46' | EA | 1/1/2010 |
| 0649 31312 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 36' AND 60' | EA | 1/1/2010 |
| 0649 31313 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 36' AND 70.5' | EA | 1/1/2010 |
| 0649 31314 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 46' AND 46' | EA | 1/1/2010 |
| 0649 31315 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 46' AND 60' | EA | 1/1/2010 |
| 0649 31316 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 46' AND 70.5' | EA | 1/1/2010 |
| 0649 31317 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 60' AND 60' | EA | 1/1/2010 |
| 0649 31318 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 60-70.5 | EA | 1/1/2010 |
| 0649 31319 | MAST ARM,F&I, WIND SPEED-110,DOUBLE ARM,W/0 LUMINAIRE, 70.5' AND 70.5' | EA | 1/1/2010 |

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|---|---|---|---|---|
| 0649 31999 | MAST ARM,F&I, CUSTOM WIND SPEED, CUSTOM ARM LENGTH(S) | EA | T | 1/1/2010 |
| 0649 33000 | MAST ARM, INSTALL | EA | | 1/1/2010 |
| 0649 34000 | MAST ARM, RELOCATE | EA | | 1/1/2010 |

## 650- 5A-BCD TRAFFIC SIGNAL

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **PROPOSED SPEC CHANGE: Effective 7-1-11, specifically includes backplates. (Previous payment based on project details.)**

**Details** This pay item is for "permanent" traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable. For Maintenance of Traffic (MOT) activities, refer to MOT specifications, section 102.

Includes standard traffic signal, with LED indicators, and all other materials necessary for a complete and accepted installation.

Install only: Signal to be furnished by FDOT or Maintaining Agency. Plans or Specifications must provide pick-up or delivery instructions. Contractor to furnish any incidentals for a complete installation.

Relocate: Includes the removal of the signal head and installation at the location shown in the plans. Payment includes signal cable and all other materials necessary for a complete and accepted relocation. DO NOT USE this item for Maintenance of Traffic (MOT) adjustments.

Special: DO NOT Use this item for LED (standard) signals. "Special" types should be submitted to the State Traffic Ops office for review.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications** Min Specs: Section A650
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **650- 5A-BCD** **TRAFFIC SIGNAL** **AS**

A = Operation
1 (Furnish & Install)
3 (Install) BCD=blank. Signal furnished by FDOT or Maintaining Agency.
4 (Relocate) BCD=blank. DO NOT USE for MOT activities.
Remove: Use item 690-10

5 (Retrofit Existing Hanger Assembly) BCD=blank

B = Number Of Sections On Each Face

C = Number Of Directions

D = Type
1 (Standard) LED indicators
2 (Light Weight)
3 (Special) see detail

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0650 51111 | TRAFFIC SIGNAL, F&I, 1 SECTION, 1 WAY, STANDARD | AS | | 1/1/2010 | |
| 0650 51112 | TRAFFIC SIGNAL, F&I, 1 SECTION, 1 WAY, LIGHT WEIGHT | AS | | 1/1/2010 | |
| 0650 51113 | TRAFFIC SIGNAL, F&I, 1 SECTIONS, 1 WAY, SPECIAL | AS | T | 1/1/2010 | |
| 0650 51121 | TRAFFIC SIGNAL, F&I, 1 SECTIONS, 2 WAY, STANDARD | AS | | 1/1/2010 | |
| 0650 51122 | TRAFFIC SIGNAL, F&I, 1 SECTIONS, 2 WAY, LIGHT WEIGHT | AS | | 1/1/2010 | |
| 0650 51123 | TRAFFIC SIGNAL, F&I, 1 SECTIONS, 2 WAY, SPECIAL | AS | T | 1/1/2010 | |
| 0650 51131 | TRAFFIC SIGNAL, F&I, 1 SECT, 3 WAY, STD | AS | | 1/1/2010 | |
| 0650 51132 | TRAFFIC SIGNAL, F&I, 1 SECT, 3 WAY, LIGHT WEIGHT | AS | | 1/1/2010 | |
| 0650 51133 | TRAFFIC SIGNAL, F&I, 1 SECTIONS, 3 WAY, SPECIAL | AS | T | 1/1/2010 | |
| 0650 51141 | TRAFFIC SIGNAL, F&I, 1 SECT, 4 WAY, STD | AS | | 1/1/2010 | |
| 0650 51142 | TRAFFIC SIGNAL, F&I, 1 SECT, 4 WAY, LIGHT WEIGHT | AS | | 1/1/2010 | |
| 0650 51143 | TRAFFIC SIGNAL, F&I, 1 SECTIONS, 4 WAY, SPECIAL | AS | T | 1/1/2010 | |
| 0650 51211 | TRAFFIC SIGNAL, F&I, 2 SECTION, 1 WAY, STANDARD | AS | | 1/1/2010 | |
| 0650 51212 | TRAFFIC SIGNAL, F&I, 2 SECTION, 1 WAY, LIGHT WEIGHT | AS | | 1/1/2010 | |
| 0650 51213 | TRAFFIC SIGNAL, F&I, 2 SECTIONS, 1 WAY, SPECIAL | AS | T | 1/1/2010 | |
| 0650 51311 | TRAFFIC SIGNAL, F&I, 3 SECTION, 1 WAY, STANDARD | AS | | 1/1/2010 | |
| 0650 51312 | TRAFFIC SIGNAL, F&I, 3 SECTIONS, 1 WAY, LIGHT WEIGHT | AS | | 1/1/2010 | |
| 0650 51313 | TRAFFIC SIGNAL, F&I, 3 SECTIONS, 1 WAY, SPECIAL | AS | T | 1/1/2010 | |
| 0650 51321 | TRAFFIC SIGNAL, F&I, 3 SECTION, 2 WAY, STANDARD | AS | | 1/1/2010 | |
| 0650 51322 | TRAFFIC SIGNAL, F&I, 3 SECTION, 2 WAY, LIGHT WEIGHT | AS | | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0650 51323 | TRAFFIC SIGNAL, F&I, 3 SECTIONS, 2 WAY, SPECIAL | AS | T | 1/1/2010 |
| 0650 51331 | TRAFFIC SIGNAL, F&I, 3 SECTION, 3 WAY, STANDARD | AS | | 1/1/2010 |
| 0650 51332 | TRAFFIC SIGNAL, F&I, 3 SECTION, 3 WAY, LIGHT WEIGHT | AS | | 1/1/2010 |
| 0650 51341 | TRAFFIC SIGNAL, F&I, 3 SECTION, 4 WAY, STANDARD | AS | | 1/1/2010 |
| 0650 51342 | TRAFFIC SIGNAL, F&I, 3 SECTION, 4 WAY, LIGHT WEIGHT | AS | | 1/1/2010 |
| 0650 51411 | TRAFFIC SIGNAL, F&I, 4 SECT 1 WAY, STD | AS | | 1/1/2010 |
| 0650 51412 | TRAFFIC SIGNAL, F&I, 4 SECT 1 WAY, LIGHT WEIGHT | AS | | 1/1/2010 |
| 0650 51511 | TRAFFIC SIGNAL, F&I, 5 SECTIONS, 1 WAY, STANDARD | AS | | 1/1/2010 |
| 0650 51512 | TRAFFIC SIGNAL, F&I, 5 SECTIONS, 1 WAY, LIGHT WEIGHT | AS | | 1/1/2010 |
| 0650 51513 | TRAFFIC SIGNAL, F&I, 5 SECTIONS, 1 WAY, SPECIAL | AS | T | 1/1/2010 |
| 0650 51521 | TRAFFIC SIGNAL , F&I, 5 SECT, 2 WAY, STD | AS | | 1/1/2010 |
| 0650 51522 | TRAFFIC SIGNAL, F&I, 5 SECTIONS, 2 WAY, LIGHT WEIGHT | AS | | 1/1/2010 |
| 0650 53 | TRAFFIC SIGNAL, INSTALL | AS | | 1/1/2010 |
| 0650 54 | TRAFFIC SIGNAL, RELOCATE | AS | | 1/1/2010 |
| 0650 55 | TRAFFIC SIGNAL, RETROFIT EXISTING HANGER ASSEMBLY | AS | | 1/1/2010 |

## 653-ABC- PEDESTRIAN SIGNAL

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

LED Countdown is the current standard; refer to PPM Vol 1, Chapter 7.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Ch 7

**Trns·port**

**Other Standards** Index No. 17764, 17784

**Specifications** Min Specs: Section A653

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **653-ABC-** **PEDESTRIAN SIGNAL** **AS**

A = Operation
1 (Furnish & Install)
3 (Install) Items provided by local maintaining agency; BC=00
4 (Relocate) BC=00
Remove: use item 690-20

B = Type Signal
1 (12" Incandescent)

7 (Neon International Symbol Low Wattage)
8 (LED)
9 (LED- Countdown) STANDARD

C = Number Of Directions (Ways)

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0653111 | SIGNAL PEDESTRIAN, 12 INCH, INCANDESCENT, 1 WAY | AS | | 1/1/2010 | |
| 0653112 | SIGNAL PEDESTRIAN, 12 INCH, INCANDESCENT, 2 WAY | AS | | 1/1/2010 | |
| 0653171 | SIGNAL PEDESTRIAN, NEON INTERNATIONAL SYMBOL LOW WATTAGE, 1 WAY | AS | | 1/1/2010 | |
| 0653172 | SIGNAL PEDESTRIAN, NEON INTERNATIONAL SYMBOL LOW WATTAGE, F&I, 2 WAY | AS | | 1/1/2010 | |
| 0653181 | PEDESTRIAN SIGNAL, F&I, LED, 1 DIRECTION | AS | | 1/1/2010 | |
| 0653182 | PEDESTRIAN SIGNAL, F&I, LED, 2 DIRECTIONS | AS | | 1/1/2010 | |
| 0653191 | PEDESTRIAN SIGNAL, F&I, LED - COUNT DOWN, 1 DIRECTION | AS | | 1/1/2010 | |
| 0653192 | PEDESTRIAN SIGNAL, F&I, LED - COUNT DOWN, 2 DIRECTIONS | AS | | 1/1/2010 | |
| 0653193 | PEDESTRIAN SIGNAL, F&I, LED - COUNT DOWN, 3 DIRECTIONS | AS | | 1/1/2010 | |
| 0653300 | PEDESTRIAN SIGNAL , INSTALL ONLY | AS | | 1/1/2011 | |
| 0653311 | PEDESTRIAN SIGNAL,INSTALL,12" INCANDESCENT,1 DIRECTION | AS | | 1/1/2010 | 12/31/2010 |
| 0653312 | PEDESTRIAN SIGNAL,INSTALL,12" INCANDESCENT,2 DIRECTIONS | AS | | 1/1/2010 | 12/31/2010 |
| 0653381 | PEDESTRIAN SIGNAL, INSTALL, LED, 1 WAY | EA | | 1/1/2010 | 12/31/2010 |
| 0653391 | PEDESTRIAN SIGNAL , INSTALL, LED - COUNT DOWN, 1 DIRECTION | AS | | 1/1/2010 | 12/31/2010 |
| 0653392 | PEDESTRIAN SIGNAL , INSTALL, LED - COUNT DOWN, 2 DIRECTION | AS | | 1/1/2010 | 12/31/2010 |

| 0653400 | SIGNAL PEDESTRIAN, RELOCATE | AS | 1/1/2010 |
|---|---|---|---|

## 659-ABB- SIGNAL HEAD AUXILIARIES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**PROPOSED SPEC CHANGE: Effective 7/2011 (??), backplates are included in the payment for traffic signals. (Previously, payment was either included in signal, or separate payment per backplate.)**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

INSTALL: Items to be furnished by FDOT or local/maintaining agency.

RELOCATE: Items to be relocated within current project. DO NOT USE this item for Maintenance of Traffic relocations. Valid for

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Min Specs: Section A659

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **659-ABB-** **SIGNAL HEAD AUXILIARIES** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) item furnished by local agency
4 (Relocate) BB= 7, 8, or 9
Remove: for signal pedestal, use item 690-31

BB = Item
01 (Back Plates, 3 Section)
02 (Back Plates, 4 Section)
03 (Disconnect Hanger)
04 (Signal Lamps 140 Watt Max.)
05 (Signal Lamps 60 Watt Max.)
06 (Tunnel Visor)
07 (Aluminum Pedestal)
08 (Steel Pedestal)
09 (Concrete Pedestal, Type II)
10 (Louvers)
11 (Back Plates, 1-Section)
12 (Mounting Brackets, 2-Way)
13 (Mounting Brackets, 3-Way)

14 (Mounting Brackets, 4-Way)
15 (12" Lens)
16 (8" Lens)
17 (Signal Frame)
18 (Back Plates, 5-Section Cluster)
20 (LED Module)

### Notes

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0659101 | SIGNAL HEAD AUXILIARIES, F&I, BACK PLATES 3 SECT | EA | | 1/1/2010 | |
| 0659102 | SIGNAL HEAD AUXILIARIES, F&I, BACK PLATES 4 SECT | EA | | 1/1/2010 | |
| 0659103 | SIGNAL HEAD AUXILIARIES, FURNISH & INSTAL, DISCONNECT HANGER | EA | | 1/1/2010 | |
| 0659104 | SIGNAL HEAD AUXILIARIES, FURNISH & INSTAL, SIGNAL LAMPS 140 WATT MAX | EA | | 1/1/2010 | |
| 0659106 | SIGNAL HEAD AUXILIARIES, F&I, TUNNEL VISOR | EA | | 1/1/2010 | |
| 0659107 | SIGNAL HEAD AUXILIARIES, F&I, ALUMINUM PEDESTAL | EA | | 1/1/2010 | |
| 0659108 | SIGNAL HEAD AUXILIARIES, F&I, STEEL PEDESTAL | EA | | 1/1/2010 | |
| 0659109 | SIGNAL HEAD AUXILIARIES, F&I, CONC PEDESTAL TYPE II | EA | | 1/1/2010 | |
| 0659110 | SIGNAL HEAD AUXILIARIES, F&I, LOUVERS | EA | | 1/1/2010 | |
| 0659111 | SIGNAL HEAD AUXILIARIES, F&I, BACK PLATES, 1 SECTION | EA | | 1/1/2010 | |
| 0659112 | SIGNAL HEAD AUXILIARIES, F&I, MOUNTING BRACKETS, 2- WAY | EA | | 1/1/2010 | |
| 0659115 | SGNL HEAD AUXI, F&I, 12" LENS | EA | | 1/1/2010 | |
| 0659118 | SIGNAL HEAD AUXILIARIES, F&I, BACK PLATES, 5 SECT CLUSTER | EA | | 1/1/2010 | |
| 0659120 | SIGNAL HEAD AUXILIARIES, F&I, LED MODULE | EA | | 1/1/2010 | |
| 0659301 | SIGNAL HEAD AUXILIARIES, INS, BACK PLATES 3 SECT | EA | | 1/1/2010 | |
| 0659307 | SIGNAL HEAD AUXILIARIES, INSTALL, ALUMINUM PEDESTAL | EA | | 1/1/2010 | |
| 0659308 | SIGNAL HEAD AUXILIARIES, INSTALL, STEEL PEDESTAL | EA | | 1/1/2010 | |
| 0659309 | SIGNAL HEAD AUXILIARIES, INSTALL, CONC PEDESTAL TYPE II | EA | | 1/1/2010 | |
| 0659318 | SIGNAL HEAD AUXILIARIES, INS, BACK PLATES, 5 SECT CLUSTER | EA | | 1/1/2010 | |

## 660- 1-ABB LOOP DETECTOR, INDUCTIVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Min Specs: Section A660

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **660- 1-ABB** **LOOP DETECTOR, INDUCTIVE** **EA**

A = Operation
1 (Furnish & Install)

BB = Type
01 (Type 1, 1 Ch, R, S)
02 (Type 2, 1 Ch, R, S, TD)
03 (Type 3, 1 Ch, SS, S))
04 (Type 4, 1 Ch, SS, S, TD)
05 (Type 5, 2 Ch, SS, S)
06 (Type 6, 2 Ch, SS, S, TD)
07 (Type 7, 4 Ch, SS, S)
08 (Type 8, 4 Ch, SS, S, TD)
09 (Type 9, 2 Ch, SS, RM)
10 (Type 10, 2 Ch, SS, RM, TD)
11 (Type 11, 4 Ch, SS, RM)
12 (Type 12, 4 Ch, SS, RM, TD)
Legend
Ch = Channel
R = Relay Output
S = Shelf Mounted
TD = Time Delay
RM = Rack Mounted
SS = Solid State

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0660 1101 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 1 | EA | | 1/1/2010 | |
| 0660 1102 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 2 | EA | | 1/1/2010 | |
| 0660 1103 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 3 | EA | | 1/1/2010 | |
| 0660 1104 | LOOP DETECTOR, INDUCTIVE, F&I, TYPE 4, 2CHANNEL, SOLID STATE, SHELF MOUNTED, TIME DELAY | EA | | 1/1/2010 | |
| 0660 1105 | LOOP DETECTOR, INDUCTIVE, F&I, TYPE 5, 2CHANNEL, SOLID STATE, SHELF MOUNTED | EA | | 1/1/2010 | |
| 0660 1106 | LOOP DETECTOR INDUCTIVE , F&I, TYPE 6, 2 CH,SS,S,TD | EA | | 1/1/2010 | |
| 0660 1107 | LOOP DETECTOR INDUCTIVE , F&I, TYPE 7, 4 CH,SS,S | EA | | 1/1/2010 | |
| 0660 1109 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 9 | EA | | 1/1/2010 | |
| 0660 1110 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 10 | EA | | 1/1/2010 | |
| 0660 1111 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 11, 4 CH, SS, RM | EA | | 1/1/2010 | |
| 0660 1112 | LOOP DETECTOR INDUCTIVE, F&I, TYPE 12, 4 CH, SS, RM, TD | EA | | 1/1/2010 | |

## 660- 2-ABB LOOP ASSEMBLY

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

Includes cost of loop material, labor, etc. according to specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 17781

**Specifications** Min Specs: Section A660

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **660- 2-ABB** **LOOP ASSEMBLY** **AS**

A = Operation
1 (Furnish & Install)

BB = Type
01 (Type A)
02 (Type B)
03 (Type C)
04 (Type D)
05 (Type E)
06 (Type F)
07 (Type G)
08 (Type H)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0660 2101 | LOOP ASSEMBLY- F&I, TYPE A | AS | | 1/1/2010 | |
| 0660 2102 | LOOP ASSEMBLY, F&I, TYPE B | AS | | 1/1/2010 | |
| 0660 2103 | LOOP ASSEMBLY, F&I, TYPE C | AS | | 1/1/2010 | |
| 0660 2104 | LOOP ASSEMBLY, F&I, TYPE D | AS | | 1/1/2010 | |
| 0660 2105 | LOOP ASSEMBLY, F&I, TYPE E | AS | | 1/1/2010 | |
| 0660 2106 | LOOP ASSEMBLY, F&I, TYPE F | AS | | 1/1/2010 | |
| 0660 2107 | LOOP ASSEMBLY, F&I, TYPE G | AS | | 1/1/2010 | |

## 663- 74- AB VEHICLE DETECTOR ASSEMBLIES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
Includes all work and materials necessary for a complete assembly, as detailed in the plans or specifications. One assembly is needed, per approach (normally 4 per intersection).

For Relocate operation, ensure that plans/specs detail removal and re-installation instructions, as well as guidance if detector is damaged or broken.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **663- 74- AB** **VEHICLE DETECTOR ASSEMBLIES** **EA**

A = Operation
1 (Furnish & Install)
4 (Relocate) B=0
Remove: use item 690-60

B = Assembly Type
1 (Optical Type)
2 (Infrared)
3 (Road Tube)
4 (Emergency Pre-emption)
5 (Video)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0663 74 11 | VEHICLE DETECTOR ASSEM, F&I, OPTICAL TYPE | EA | T | 1/1/2010 | |
| 0663 74 12 | VEHICLE DETECTOR ASSEMBLIES, F&I, INFRARED | EA | T | 1/1/2010 | |
| 0663 74 14 | VEHICLE DETECTOR ASSEMBLIES, F&I, EMERGENCY PRE-EMPTION | EA | T | 1/1/2010 | |
| 0663 74 15 | VEHICLE DETECTOR ASSEMBLIES, F&I, VIDEO | EA | T | 1/1/2010 | |
| 0663 74 40 | VEHICLE DETECTOR ASSEM, RELOCATE | EA | T | 1/1/2010 | |

## 665- AB- PEDESTRIAN DETECTOR

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

Includes pedestrian signs, as shown on index 17784.

INSTALL: Detector and Sign to be furnished by FDOT or Maintaining agency. Plans or Specs must indicate pick-up or delivery instructions. Incidental parts to complete the installation to be furnished by the contractor.

RELOCATE: Ensure that plans/specs detail removal and re-installation instructions, as well as guidance if detector is damaged or broken.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 17784
**Specifications** Min Specs: Section A665
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **665- AB-** **PEDESTRIAN DETECTOR** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) B=0. Furnished by FDOT or Maintaining Agency
4 (Relocate) B=0 see details above
Remove: use item 690-70

B = Assembly Type
1 (Pole Or Controller Cabinet Mounted Detector Station & Sign)
2 (Detector Station With Post & Sign)
3 (Detector With Sign Only)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0665 11 | PEDESTRIAN DETECTOR, F&I, POLE OR CONTROLLER CABINET MOUNTED DETECTOR STATION & SIGN | EA | | 1/1/2010 | |
| 0665 12 | PEDESTRIAN DETECTOR, F&I, DETECTOR STATION WITH POST & SIGN | EA | | 1/1/2010 | |
| 0665 13 | PEDESTRIAN DETECTOR, F&I, DETECTOR WITH SIGN ONLY | EA | | 1/1/2010 | |
| 0665 30 | PEDESTRIAN DETECTOR, INSTALL | EA | | 1/1/2010 | |
| 0665 40 | PEDESTRIAN DETECTOR, RELOCATE | EA | | 1/1/2010 | |

**668- AB-** **DETECTOR CABINET (SIGNALS)**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**
This pay item is for traffic signals and traffic control devices only.

A=4 (Relocate): Plan details/pay item note is required to detail any incidentals included with the relocate item, including batteries, internal electronics, reconnection, new concrete pad, removal of the old pad, etc.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **668- AB-** **DETECTOR CABINET (SIGNALS)** **EA**

A =
1 (Furnish & Install)
3 (Install)
4 (Relocate) B=0

B = Cabinet Size (Minimum)
1 (Type I 13" X 10" X 6")
2 (Type II 27" X 15" X 12")
3 (Type III 32" X 20" X 14")
4 (Type IV 48" X 29" X 16")
5 (Type V 54" X 38" X 24")
6 (Type VI 74" X 38" X 24")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0668 11 | DETECTOR CABINET, FURNISH & INSTALL, TYPE I 13"X10"X6" | EA | | 1/1/2010 | |
| 0668 12 | DETECTOR CABINET, FURNISH & INSTALL, TYPE II 27"X15"X12" | EA | | 1/1/2010 | |
| 0668 13 | DETECTOR CABINET, SIGNALS, F&I, TYPE III, 32"X20"X14" | EA | | 1/1/2010 | |
| 0668 14 | DETECTOR CABINET, SIGNALS, F&I, TYPE IV, 48"X29"X16" | EA | | 1/1/2010 | |
| 0668 15 | DETECTOR CABINET- SIGNALS, F&I, TYPE V, 54"X38"X24" | EA | | 1/1/2010 | |
| 0668 16 | DETECTOR CABINET, SIGNALS, F&I, TYPE VI, 74"X38"X24" | EA | | 1/1/2010 | |
| 0668 33 | DETECTOR CABINET, INS, TYPE III, 32"X20"X14" | EA | | 1/1/2010 | |
| 0668 35 | DETECTOR CABINET, INS, TYPE V, 54"X38"X24" | EA | | 1/1/2010 | |
| 0668 40 | DETECTOR CABINET, RELOCATE | EA | D | 9/1/2010 | |

**670- 4- A** **FLASHING BEACON CONTROLLER ASSEMBLY**

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 17841
**Specifications** Min Specs: Section A670
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct. 670- 4- A FLASHING BEACON CONTROLLER ASSEMBLY AS**

A =
1 (Furnish & Install)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0670 4 1 | FLASHING BEACON CONTROLLER ASSEMBLY, F&I | AS | | 1/1/2010 | |

## 670- 5-ABC TRAFFIC CONTROLLER ASSEMBLY

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

For Modify, detail all work to be completed.
For Special Type, detail all components.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Min Specs: Section A670

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **670- 5-ABC** **TRAFFIC CONTROLLER ASSEMBLY** **AS**

A =
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Modify)

B = Type
1 (NEMA)
2 (170)
3 (Special)

C = Special Features
0 (None)
1 (One Preemption Plan)
2 (Two Preemption Plans)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0670 5110 | TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA | AS | | 1/1/2010 | |
| 0670 5111 | TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 1 PREEMPTION | AS | | 1/1/2010 | |
| 0670 5112 | TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 2 PREEMPTION | AS | | 1/1/2010 | |
| 0670 5120 | TRAFFIC CONTROLLER ASSEMBLY, F&I, 170 | AS | | 1/1/2010 | |
| 0670 5121 | TRAFFIC CONTROLLER ASSEMBLY, F&I, 170, 1 PREEMPTION PLAN | AS | | 1/1/2010 | |
| 0670 5122 | TRAFFIC CONTROLLER ASSEMBLY, F&I,170,2 PREEMPTION PLANS | AS | | 1/1/2010 | |
| 0670 5130 | TRAFFIC CONTROLLER ASSEMBLY, F&I, SPECIAL | AS | T | 1/1/2010 | |
| 0670 5131 | TRAFFIC CONTROLLER ASSEMBLY, F&I, SPECIAL ONE PREEMPTION PLAN | AS | T | 1/1/2010 | |
| 0670 5132 | TRAFFIC CONTROLLER ASSEMBLY, F&I, SPECIAL, 2 PREEMPTION PLANS | AS | T | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0670 5310 | TRAFFIC CONTROLLER ASSEMBLY, INSTALL, NEMA | AS | | 1/1/2010 |
| 0670 5311 | TRAFFIC CONTROLLER ASSEMBLY, INSTALL, NEMA, 1 PREEMPT | AS | | 1/1/2010 |
| 0670 5320 | TRAFFIC CONTROLLER ASSEMBLY, INSTALL, 170 | AS | | 1/1/2010 |
| 0670 5330 | TRAFFIC CONTROLLER ASSEMBLY, INSTALL, SPECIAL | AS | T | 1/1/2010 |
| 0670 5331 | TRAFFIC CONTROLLER ASSEMBLY, INSTALL, SPECIAL ONE PREEMPTION PLAN | AS | T | 1/1/2010 |
| 0670 5410 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY, NEMA | AS | | 1/1/2010 |
| 0670 5411 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY, NEMA, 1 PREEMPT | AS | | 1/1/2010 |
| 0670 5412 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY, NEMA, 2 PREEMPT | AS | | 1/1/2010 |
| 0670 5420 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY, 170 | AS | | 1/1/2010 |
| 0670 5430 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY, SPECIAL | AS | T | 1/1/2010 |
| 0670 5431 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY, SPECIAL, 1 PREEMPTION PLANS | AS | | 1/1/2010 |
| 0670 5432 | TRAFFIC CONTROLLER ASSEMBLY, MODIFY, SPECIAL, 2 PREEMPTION PLANS | AS | | 1/1/2010 |
| 0670 5520 | TRAFFIC CONTROLLER ASSEMBLY, RELOCATE, 170 | AS | | 1/1/2010 |

## 671- 2- AB TRAFFIC CONTROLLER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Min Specs: Section A671

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **671- 2- AB** **TRAFFIC CONTROLLER** **EA**

A =
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Modify)

B = Type
1 (NEMA)
2 (170)
3 (Special)
4 (2070)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0671 2 11 | TRAFFIC CONTROLLER, F&I, NEMA | EA | | 1/1/2010 | |
| 0671 2 13 | TRAFFIC CONTROLLER, F&I, SPECIAL | EA | | 1/1/2010 | |
| 0671 2 41 | TRAFFIC CONTROLLER, MODIFY, NEMA | EA | | 1/1/2010 | |
| 0671 2 42 | TRAFFIC CONTROLLER, MODIFY, 170 | EA | | 1/1/2010 | |
| 0671 2 43 | TRAFFIC CONTROLLER, MODIFY, SPECIAL | EA | | 1/1/2010 | |

## 678- 1-ABB CONTROLLER ACCESSORIES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** Min Specs: Section A678

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **678- 1-ABB** **CONTROLLER ACCESSORIES** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)

3 (Install)

BB = Type Of Controller Accessory
01 (Type 3 Conflict Monitor)
02 (Type 6 Conflict Monitor)
03 (Type 12 Conflict Monitor)
04 (Load Switch)
05 (Type 1 Flasher)
06 (Type 3 Flasher)
07 (Type 1 Time Switch)
08 (Type 2 Time Switch)
09 (Type 3 Time Switch)
10 (Type 4 Time Switch)
11 (Power Reduction Assembly)
12 (Master Clock Unit)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0678 1103 | CONTROLLER ACCESSORIES, F&I, TYPE 12CONFLICT MONITOR | EA | | 1/1/2010 | |
| 0678 1104 | CONTROLLER ACCESSORIES, F&I, LOAD SWITCH | EA | | 1/1/2010 | |
| 0678 1105 | CONTROLLER ACCESSORIES, F&I, TYPE 1 FLASHER | EA | | 1/1/2010 | |
| 0678 1106 | CONTROLLER ACCESSORIES, F&I, TYPE 3 FLASHER | EA | | 1/1/2010 | |
| 0678 1107 | CONTROLLER ACCESSORIES, F&I, TYPE 1 TIME SWITCH | EA | | 1/1/2010 | |
| 0678 1109 | CONTROLLER ACCESSORIES, F&I, TYPE 3 TIME SWITCH | EA | | 1/1/2010 | |
| 0678 1110 | CONTROLLER ACCESSORIES, F&I, TYPE 4 TIME SWITCH | EA | | 1/1/2010 | |
| 0678 1111 | CONTROLLER ACCESSORIES, F&I, POWER REDUCTION ASSEMBLY | EA | | 1/1/2010 | |
| 0678 1112 | CONTROLLER ACCESSORIES, F&I, MASTER CLOCK UNIT | EA | | 1/1/2010 | |
| 0678 1305 | CONTROLLER ACCESSORIES, INSTALL, TYPE 1 FLASHER | EA | | 1/1/2010 | |

## 680-ABB- SYSTEM CONTROL EQUIPMENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
Detailed plan notes or specifications to be provided by designer.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **680-ABB-** **SYSTEM CONTROL EQUIPMENT** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) Item furnished by local agency

BB = Item As Described
06 (Communications Interface)
11 (Roadside Master)
14 (Central Modem Card)
15 (Autodial/Answer Ext Communications Modem)
16 (Fiber Optic, FSK Modem)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0680104 | SYSTEM CONTROL EQUIPMENT,F&I, LINE PRINTER | EA | T | 1/1/2010 | 12/31/2010 |
| 0680106 | SYSTEM CONTROL EQUIPMENT,F&I, COMMUNICATION INTERFACE | EA | T | 1/1/2010 | |
| 0680111 | SYSTEM CONTROL EQUIPMENT, FURNISH AND INSTALL ROADSIDE MASTER | EA | T | 1/1/2010 | |
| 0680113 | SYSTEM CONTROL EQUIPMENT,F&I, CENTRAL MICROCOMPUTER ASSEMBLY | EA | T | 1/1/2010 | 12/31/2010 |
| 0680114 | SYSTEM CONTROL EQUIPMENT,F&I, MODEM CARD | EA | T | 1/1/2010 | |
| 0680115 | SYSTEM CONTROL EQUIPMENT, F&I, AUTODIAL / ANSWER EXT COMM MODEM | EA | T | 1/1/2010 | |
| 0680116 | SYSTEM CONTROL EQUIPMENT,F&I, FIBER OPTIC, FSK MODEM | EA | T | 1/1/2010 | |

**681-100-** **SIGNALS- TRAFFIC CONTROL SYSTEM SOFTWARE**

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

Detail software requirements in the Technical Special Provisions.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **681-100-** **SIGNALS- TRAFFIC CONTROL SYSTEM SOFTWARE** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**681-ABB-** **SYSTEM SOFTWARE**

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details** This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **681-ABB-** **SYSTEM SOFTWARE** **LS/LS**

A = Operation
1 (Furnish & Install)
3 (Install) BB=00 Item furnished by local agency

BB = Item As Described
01 (CPU Software)
02 (UTCS Fortran Routines)
03 (UTCS Assembly Language Routines)
04 (Data Base)
05 (Control Patterns)
06 (Data Base Generator)
07 (Pattern Generator)
08 (SCS Operating Software)
09 (Motorist Aid Operating Software)
10 (Weigh In Motion Operating Software)
11 (Traffic Control System Software)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0681101 | SYSTEM SOFTWARE, F&I, CPU SOFTWARE | LS | T | 1/1/2010 | 12/31/2010 |
| 0681104 | SYSTEM SOFTWARE, F&I, DATA BASE | LS | T | 1/1/2010 | |
| 0681111 | SYSTEM SOFTWARE, F&I, TRAFFIC CONTOL SYSTEM SOFTWARE | LS | T | 1/1/2010 | 12/31/2010 |

**682-ABB-** **SYSTEM DISPLAY**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
Refer to ITS Items for Intelligent Transportation System applications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **682-ABB-** **SYSTEM DISPLAY** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) BB=00 Item furnished by local agency
4 (Modify) BB=00

BB = Item As Described
01 (CRT Display)
02 (Panel Board Map)
03 (Projected Display)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0682101 | SYSTEM DISPLAY, CRT DISPLAY | EA | T | 1/1/2010 | |

## 683-ABB- SYSTEM COMMUNICATIONS

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
Tabulation summary required on all projects.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **683-ABB-** **SYSTEM COMMUNICATIONS** **LS/LS**

A = Operation
1 (Furnish & Install)
3 (Install)
4 (Modify)

BB= Item As Described
01 (FDM) Frequency Division Multiplexor
02 (TDM)
03 (TDM Hardware)
04 (TDM Radio)
05 (TDM Coaxial)
06 (Central Site Radio)
07 (System Communications Modems)
08 (Voice Equipment)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0683103 | SYSTEM COMMUNICATIONS, TDM HARDWARE | LS | T | 1/1/2010 | |
| 0683107 | SYSTEM COMMUNICATIONS, F&I, COMMUNICATIONS MODEMS | LS | T | 1/1/2010 | |

## 684- AB- SYSTEM COMMUNICATIONS CARRIER

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **684- AB-** **SYSTEM COMMUNICATIONS CARRIER** **LF**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) Item furnished by local agency

B = Item As Described
1 (Multi-Pair Cable)
2 (Coaxial Cable)
3 (Lead Jacketed Coaxial Cable)
4 (Fiber Optic Cable)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0684 11 | SYSTEM COMMUNICATIONS CARRIER, F&I, MULTI-PAIR CABLE | LF | T | 1/1/2010 | |
| 0684 12 | SYSTEM COMMUNICATIONS CARRIER, F&I, COAXIAL CABLE | LF | T | 1/1/2010 | |
| 0684 14 | SYSTEM COMMUNICATIONS CARRIER, F&I, FIBER OPTIC CABLE | LF | T | 1/1/2010 | |
| 0684 34 | SYSTEM COMMUNICATIONS CARRIER, INSTALL, FIBER OPTIC CABLE | LF | T | 1/1/2010 | |

## 685-ABB- SYSTEM AUXILIARIES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
NOT TO BE USED FOR ITS Projects. Refer to 780 items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

| **Struct.** | **685-ABB-** | **SYSTEM AUXILIARIES** | **EA** |
|---|---|---|---|

A = Operation
1 (Furnish & Install)
3 (Install)

BB = Item As Described
01 (RF Modulator)
02 (Multi-Plex Field Transceiver, Wire)
03 (Multi-Plex Field Transceiver, Radio)
04 (Data Accumulator)
05 (Master Clock Unit)
06 (Uninterruptible Power Source)
07 (Test Equipment)
08 (Equipment Cabinet, Type A)
09 (Equipment Cabinet, Type B)
10 (Equipment Cabinet, Type C)
11 (Equipment Cabinet, Type D)
12 (Bridge Continuity Sensor)
13 (Pier Vibration Detection System-Sensors)
14 (Pier Vibration Detection System-Monitor/Controller)
15 (Weather Instrumentation)
16 (Remote Site-Radio)
17 (Citizen Band-Radio)
18 (Telemetry Transmitter)
19 (Telemetry Receiver)
20 (Telemetry Transceiver)
21 (Pre-Timed Controller Adapter)
22 (2-Phase Or Full Actuated Adapter)
23 (3/Phase Thru 8-Phase Full Actuated Adapter)
24 (Universal Adapter)
25 (Standby System Relay)
26 (Standby System Timer)
27 (Telephone Connection Box)
28 (Interface Panel)
29 (Pneumatic Transport Tube Assembly)
30 (Weigh In Motion Scale Assembly)
31 (Static Scale Assembly)
32 (Public Address System Assembly)
33 (RF Demodulator)
34 (Dimensional Measurement Assembly)
36 (Low Band Vhf Radio)
37 (Line Amplifier)
38 (CCTV Camera Assembly)
39 (Fiber Optic Video Amplifier, Transmitter & Receiver)
40 (Fiber Optic, Modulator/Demodulator)
41 (Fiber Optic, Multiplexor/Demultiplexor)
42 (Video Central Control Equipment)
43 (Video Monitors)
44 (Video System Support Equipment)
55 (PLP FSK Card)
56 (FSK Modem, Interface Panel Wall)

57 (FSK Modem, Multiplexor Interface Panel)
58 (FSK Modem, Interface Panel Rack)
60 (Microwave Radar Detection Unit Assembly)

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0685106 | SYSTEM AUXILIARIES, F&I, UNINTERRUPTIBLE POWER SOURCE | EA | T | 1/1/2010 | |
| 0685107 | SYSTEM AUXILIARIES, F&I, TEST EQUIPMENT | EA | T | 1/1/2010 | |
| 0685110 | SYSTEM AUXILIARIES, F&I, EQUIPMENT CABINET, TYPE C | EA | T | 1/1/2010 | |
| 0685118 | SYSTEM AUXILIARIES, F&I, TELEMETRY TRANSCEIVER | EA | T | 1/1/2010 | |
| 0685120 | SYSTEM AUXILIARIES, F&I, TELEMETRY TRANSCEIVER | EA | T | 1/1/2010 | |
| 0685124 | SYSTEM AUXILIARIES, F&I, UNIVERSAL ADAPTER | EA | T | 1/1/2010 | |
| 0685127 | SYSTEM AUXILIARIES, FURNISH & INSTALL TELEPHONE CONNECTION BOX | EA | T | 1/1/2010 | |
| 0685128 | SYSTEM AUXILIARIES, FURNISH & INSTALL, INTERFACE PANEL | EA | T | 1/1/2010 | |
| 0685138 | SYSTEM AUXILIARIES, FURNISH & INSTALL, CCTV CAMERA ASSEMBLY | EA | T | 1/1/2010 | |
| 0685139 | SYSTEM AUXILIARIES, F&I, FIBER OPTIC VIDEO AMPLIFIER, TRANSMITTER & RECEIVER | EA | T | 1/1/2010 | |
| 0685140 | SYSTEM AUXILIARIES, FURNISH & INSTALL FIBER OPTIC-MODULATOR/DEMODULATOR | EA | T | 1/1/2010 | |
| 0685141 | SYSTEM AUXILIARIES, FIBER OPTIC-MULTIPLEXOR/DEMULTIPLEXOR | EA | T | 1/1/2010 | |
| 0685142 | SYSTEM AUXILIARIES, F&I, VIDEO CENTRAL CONTROL EQUIPMENT | EA | T | 1/1/2010 | |
| 0685143 | SYSTEM AUXILIARIES, F&I, VIDEO MONITORS | EA | T | 1/1/2010 | |
| 0685144 | SYSTEM AUXILIARIES, F&I, VIDEO SYSTEM SUPPORT EQUIPMENT | EA | T | 1/1/2010 | |
| 0685156 | SYSTEM AUXILIARIES, F&I, FSK MODEM INTERFACE PANEL WALL | EA | T | 1/1/2010 | |
| 0685158 | SYSTEM AUXILIARIES, F&I, FSK MODEM INTERFACE PANEL RACK | EA | T | 1/1/2010 | |
| 0685160 | SYSTEM AUXILIARIES, F&I, MICROWAVE RADAR DETECTION UNIT ASSEMBLY | EA | T | 1/1/2010 | |
| 0685320 | SYSTEM AUXILIARIES, INSTALL, TELEMETRY TRANSCEIVER | EA | T | 1/1/2010 | |
| 0685324 | SYSTEM AUXILIARIES, INSTALL, UNIVERSAL ADAPTER | EA | T | 1/1/2010 | |
| 0685327 | SYSTEM AUXILIARIES, INSTALL, TELEPHONE CONNECTION BOX | EA | T | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0685338 | SYSTEM AUXILARIES, INSTALL, CCTV CAMERA ASSEMBLY | EA | T | 1/1/2010 |
| 0685360 | SYSTEM AUXILIARIES, INSTALL, MICROWAVE RADAR DETECTION UNIT ASSEMBLY | EA | T | 1/1/2010 |

## 686-ABB- CLOSED CIRCUIT TELEVISION EQUIPMENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **686-ABB-** **CLOSED CIRCUIT TELEVISION EQUIPMENT** **EA**

A = Operation
1 (Furnish & Install)
3 (Install)

BB = Item As Described
01 (Camera Assembly)
02 (Monitor)
03 (Recorder)
04 (Central Controls)
05 (Camera Support)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0686101 | CLOSED CIRCUIT TV EQUIPMENT, F&I, CAMERA ASSEMBLY | EA | T | 1/1/2010 | |
| 0686102 | CLOSED CIRCUIT TV EQUIPMENT, F&I, MONITOR | EA | T | 1/1/2010 | |
| 0686103 | CLOSED CIRCUIT TV EQUIPMENT, F&I, RECORDER | EA | T | 1/1/2010 | |
| 0686104 | CLOSED CIRCUIT TV EQUIPMENT, F&I, CENTRAL CONTROLS | EA | T | 1/1/2010 | |
| 0686105 | CLOSED CIRCUIT TV EQUIPMENT, F&I, CAMERA SUPPORT | EA | T | 1/1/2010 | |
| 0686301 | CLOSED CIRCUIT TV EQUIPMENT, INSTALL, CAMERA ASSEMBLY | EA | T | 1/1/2010 | |
| 0686302 | CLOSED CIRCUIT TV EQUIP, INS, MONITOR | EA | T | 1/1/2010 | |
| 0686305 | CLOSED CIRCUIT TV EQUIPMENT, INSTALL, CAMERA SUPPORT | EA | T | 1/1/2010 | |

## 690- 10- TRAFFIC SIGNAL HEAD ASSEMBLY, REMOVAL

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. DO NOT use this item for Maintenance of Traffic (MOT) activities; refer to specifications section 102.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 10-** **TRAFFIC SIGNAL HEAD ASSEMBLY, REMOVAL** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 10 | SIGNAL HEAD TRAFFIC ASSEMBLY REMOVAL | EA | | 1/1/2010 | |

## 690- 20- SIGNAL PEDESTRIAN ASSEMBLY, REMOVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. DO NOT use this item for Maintenance of Traffic (MOT) activities; refer to specifications section 102.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 20-** **SIGNAL PEDESTRIAN ASSEMBLY, REMOVE** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 20 | SIGNAL PEDESTRIAN ASSEMBLY REMOVAL | EA | | 1/1/2010 | |

## 690- 31- SIGNAL PEDESTAL- REMOVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 31-** **SIGNAL PEDESTAL- REMOVE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 31 | SIGNAL PEDESTAL REMOVAL | EA | | 1/1/2010 | |

## 690- 32- A POLE REMOVAL- SHALLOW

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.
Separate items exist for "shallow" and "deep" pole removal, as defined in the specifications.
Shallow: includes complete removal of the above ground portion of the pole, attachments, and removal of the pole foundation , including buried attachments to a depth of 4 feet (1.2 m) below existing grade, measured per each.

NOTE ALL: Plans should identify locations for pole removal, and type of pole to be removed at each location. Not to be used on poles for highway lighting, unless they are jointly used to support traffic signal mast arms or span wire assemblies.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct. 690- 32- A POLE REMOVAL- SHALLOW EA**

A =
1 (Direct Burial)
2 (Bolt on Attachment)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 32 1 | POLE REMOVAL, SHALLOW, DIRECT BURIAL | EA | | 1/1/2010 | |
| 0690 32 2 | POLE REMOVAL, SHALLOW, BOLT ON ATTACHMENT | EA | | 1/1/2010 | |

## 690- 33- A POLE REMOVAL- DEEP

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Valid through 12-31-10. Replaced by 690-34- A. See Estimates Bulletin 10-06.**

**Details**

This pay item is for traffic signals and traffic control devices only.
Separate items exist for "shallow" and "deep" pole removal, as defined in the specifications.
Deep: includes complete removal of the above ground portion of the pole and attachments, and the complete removal of the pole foundation, measured per foot (meter) from the existing grade to the deepest portion of the pole foundation actually removed. Estimate 20 ft (6 meters) per deep pole removal.

NOTE ALL: Plans should identify locations for pole removal, and type of pole to be removed at each location. Not to be used on poles for highway lighting, unless they are jointly used to support traffic signal mast arms or span wire assemblies.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 33- A** **POLE REMOVAL- DEEP** **LF**

A =
1 (Direct Burial) LF
2 (Bolt on Attachment) LF

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 33 1 | POLE REMOVAL, DEEP DIRECT BURIAL | LF | | 1/1/2010 | 12/31/2010 |
| 0690 33 2 | POLE REMOVAL, DEEP, BOLT ON ATTACHMENT | LF | | 1/1/2010 | 12/31/2010 |

## 690- 34- A CONMPLETE POLE REMOVAL- DEEP

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Effective 1-1-11. Replaces 690-33-A. See Estimates Bulletin 10-06.**

**Details**

This pay item is for traffic signals and traffic control devices only.
Separate items exist for "shallow" and "deep" pole removal, as defined in the specifications. Deep: includes complete removal of the above ground portion of the pole and attachments, and the complete removal of the pole foundation. Refer to the specifications for additional information.

NOTE ALL: Plans should identify locations for pole removal, and type of pole to be removed at each location. Not to be used on poles for highway lighting, unless they are jointly used to support traffic signal mast arms or span wire assemblies.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 34- A** **CONMPLETE POLE REMOVAL- DEEP** **EA**

A = Pole Type
blank (pole type not identified) valid through 6-30-11; use A= 1 or 2
1 (Direct Burial)
2 (Bolt on Attachment)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 34 | COMPLETE POLE REMOVAL- DEEP | EA | | 1/1/2011 | 6/30/2011 |
| 0690 34 1 | COMPLETE POLE REMOVAL- DEEP, DIRECT BURIAL | EA | | 1/1/2011 | |
| 0690 34 2 | COMPLETE POLE REMOVAL- DEEP, BOLT ON ATTACHMENT | EA | | 1/1/2011 | |

## 690- 50- A CONTROLLER ASSEMBLY- REMOVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. DO NOT use this item for Maintenance of Traffic (MOT) activities; refer to specifications section 102.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 50- A** **CONTROLLER ASSEMBLY- REMOVE** **EA**

A =
'Blank' = Complete Assembly
1 (Cabinet Assembly, Less Foundation)
2 (Controller Unit)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 50 | CONTROLLER ASSEMBLY, REMOVE, COMPLETE ASSEMBLY | EA | | 1/1/2010 | |
| 0690 50 1 | CONTROLLER ASSEMBLY, REMOVE, CAB ASSEMBLY, LESS FOUNDATION | EA | | 1/1/2010 | |
| 0690 50 2 | CONTROLLER ASSEMBLY, REMOVE, CONTROLLER UNIT | EA | | 1/1/2010 | |

## 690- 60- DETECTOR VEHICLE ASSEMBLY, REMOVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. DO NOT use this item for Maintenance of Traffic (MOT) activities; refer to specifications section 102.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 60-** **DETECTOR VEHICLE ASSEMBLY, REMOVE** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 60 | DETECTOR VEHICLE ASSEMBLY REMOVE | EA | | 1/1/2010 | |

## 690- 70- DETECTOR PEDESTRIAN ASSEMBLY, REMOVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. DO NOT use this item for Maintenance of Traffic (MOT) activities; refer to specifications section 102.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 70-** **DETECTOR PEDESTRIAN ASSEMBLY, REMOVE** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 70 | DETECTOR PEDESTRIAN ASSEMBLY REMOVE | EA | | 1/1/2010 | |

## 690- 80- SPAN WIRE ASSEMBLY REMOVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. DO NOT use this item for Maintenance of Traffic (MOT) activities; refer to specifications section 102.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 80-** **SPAN WIRE ASSEMBLY REMOVE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 80 | SPAN WIRE ASSEMBLY, REMOVE | EA | | 1/1/2010 | |

## 690- 90- REMOVE CONDUIT & CABLING

**Unit** PI **Accuracy** Per Intersection **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 90-** **REMOVE CONDUIT & CABLING** **PI**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 90 | CONDUIT & CABLING REMOVE | PI | | 1/1/2010 | |

## 690- 91- SIGNAL INTERCONNECT CABLE, REMOVE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**
This pay item is for traffic signals and traffic control devices only.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsg: Signalization Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690- 91-** **SIGNAL INTERCONNECT CABLE, REMOVE** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690 91 | SIGNAL INTERCONNECT CABLE REMOVE | LF | | 1/1/2010 | |

## 690-100- SIGNAL EQUIPMENT, MISCELLANEOUS REMOVE

**Unit** PI **Accuracy** Per Intersection **PlanQuantity?** no

**Notes**

**Details**

This pay item is for traffic signals and traffic control devices only. DO NOT use this item for Maintenance of Traffic (MOT) activities; refer to specifications section 102.

Per the specifications, the Department retains ownership of the equipment removed unless otherwise stated in the Contract Documents. The designer should indicate where materials are to be stockpiled, as needed.

For items being reused within the contract, consider "Relocate" item(s). DO NOT USE both "Remove" and "Relocate" pay items for the same signal equipment item. "Relocate" includes both the removal and new installation of the specified item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsg: Signalization Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **690-100-** **SIGNAL EQUIPMENT, MISCELLANEOUS REMOVE** **PI**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0690100 | SIGNAL EQUIPMENT MISCELLANOUS REMOVE | PI | | 1/1/2010 | |

## 699- 1- AB INTERNALLY ILLUMINATED SIGN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This item should be used when requested by maintaining agency. Refer to Minimum Specifications for Traffic Control Signal Devices, as applicable.

The internally illuminated street name sign is normally attached to the signals mast arm or span wire. This item should be shown on the signals plans and loaded in the signals category.

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: Plans or specs should clearly identify the item and initial/final locations. As needed, detail incidental items to be furnished by the Contractor for a complete installation. Clearly identify conditions under which item replacement (damaged by contractor) is needed.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqsg: Signalization Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | Index No. 17748 |
| | **Specifications** | Min Specs: Section A699 |
| | **Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0500 Signalization (or ITS)

**Struct.** **699- 1- AB** **INTERNALLY ILLUMINATED SIGN** **EA**

A=Operation
blank (Furnish & Install)
2 (Install)
3 (Modify)
4 (Relocate)

B = Sign type
1(Street Name)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0699 1 1 | INTERNAL ILLUM SIGN, FURNISH & INSTALL, STREET NAME | EA | | 1/1/2010 | |
| 0699 1 21 | INTERNAL ILLUM SIGN, INSTALL, ST NAME | EA | T | 1/1/2010 | |
| 0699 1 31 | INTERNAL ILLUM SIGN, MODIFY, ST NAME | EA | T | 1/1/2010 | |
| 0699 1 41 | INTERNAL ILLUM SIGN, RELOCATE, ST NAME | EA | T | 1/1/2010 | |

# BOE

## Basis of Estimates

*Chapter 17*

*Items 700 to 799*

State Specifications and Estimates Office
Estimating Systems Support Section

| 700- 20- AB | SINGLE POST SIGN |
|---|---|

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **Effective January 2011, note the changes to sign sizes.**

**Details**

Includes sign panel, post, any foundation or breakaway base as required by the Design Standards or plans. Per specifications, "for the purpose of payment, a sign assembly consists of all the signs mounted on a single structure (one, two, or three posts, or overhead structure)…"

MULTIPLE SIGNS ON A SINGLE POST, BACK-TO-BACK, PANELS WITH MULTI-DIRECTIONS (street names signs): Detail the signs in the plans. Select the panel size based on the combined total sign area.

IN-STREET FLEXIBLE POST SIGN: Used for R1-6 crosswalk signs. All signs must meet MUTCD requirements. Recommended plan note: "In-street flexible post sign must meet MUTCD requirements." A maintenance agreement with the maintaining agency must be included with the project file.

CUSTOM: If project conditions require a single post sign greater than 30 ft² (single direction), a custom sign may be used. Plan details will be needed, as design standard does not apply. Verify with Roadway Design Office prior to using this pay item on a project. MULTI-POST SIGNS are recommended where site conditions allow installation.

VALID THROUGH DECEMBER 2009 LETTING: Standards limit single post sign area (wind resistance area from any one direction) to 20 ft².
EFFECTIVE JANUARY 2010 LETTING: Standards limit single post sign area (wind resistance area from any one direction) to 30 ft².

**********
OPERATIONS
INSTALL: Install includes the installation of existing panel(s) on a new sign post. This item is used for signs furnished by FDOT or a local agency. The contractor will provide the post(s) and foundation, as needed to meet current design standards.

RELOCATE: Relocate includes the removal of the sign assembly in accordance with the specifications, and the relocation/installation of the sign within the project limits, in accordance with the current design standards. If new sign post(s) are needed, they should be noted in the plans, and included in the cost of the relocated sign.

REMOVE: Includes the removal of the sign, post, and foundation. Do not use the "remove" operation for a sign that is to be relocated. Signs become the property of the contractor, unless otherwise noted in the plans or specs.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index Nos. 11200 series: 11200, 11300, 11310, 11320, 11860, 11870,

13417, 17302, 17328, 17344, 17345, 17346, 17347, 17349, 17350, 17351, 17352, 17354, 17355, 17356, 17357, 17359

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 20- AB** **SINGLE POST SIGN** **AS**

A= Operation
1 (Furnish & Install)
3 (Install) furnished by FDOT or local agency
4 (Relocate) B=0; relocated within project
6 (Remove) B=0

B= Combined total sign area
1 (less than 12 ft²)
2 (12-20 ft²)
3 (20+ back-to-back) valid through 6/2011
4 (21-30 ft²) effective 1/2010
5 (31+ ft²) effective 1/2011

8 (In-Street Flexible Post)
9 (Custom) see details above

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 20 11 | SINGLE POST SIGN, F&I, LESS THAN 12 SF | AS | | 1/1/2010 | |
| 0700 20 12 | SINGLE POST SIGN, F&I, 12-20 SF | AS | | 1/1/2010 | |
| 0700 20 13 | SINGLE POST SIGN, F&I, 20 + BACK TO BACK SF | AS | | 1/1/2010 | 6/30/2011 |
| 0700 20 14 | SINGLE POST SIGN, F&I, 21-30 SF | AS | | 1/1/2010 | |
| 0700 20 15 | SINGLE POST SIGN, F&I, 31+ SF | AS | | 1/1/2011 | |
| 0700 20 18 | SINGLE POST SIGN, F&I, IN-STREET FLEXIBLE POST | AS | T | 1/1/2010 | |
| 0700 20 19 | SINGLE POST SIGN, F&I, NON - STANDARD | AS | T | 1/1/2010 | |
| 0700 20 31 | SINGLE POST SIGN, INSTALL, LESS THAN 12 SF | AS | | 1/1/2010 | |
| 0700 20 32 | SINGLE POST SIGN, INSTALL, 12-20 SF | AS | | 1/1/2010 | |
| 0700 20 40 | SINGLE POST SIGN, RELOCATE | AS | | 1/1/2010 | |
| 0700 20 60 | SINGLE POST SIGN, REMOVE | AS | | 1/1/2010 | |

**700- 21- AB** **MULTI-POST SIGN**

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **Effective with the January 2011 letting, refer to Roadway Design Bulletin 10-07 for business logo signs.**

**Details** Includes sign panel, posts, any foundation or breakaway base as required by the Design Standards or plans. The number and size of post and the average post length must be shown in the plans. Per specifications, "for the purpose of payment, a sign assembly consists of all the signs mounted on a single structure (one, two, or three posts, or

overhead structure)…"

INSTALL: Install includes the installation of existing panel(s) on new sign posts. This item is used for signs furnished by FDOT or a local agency. The contractor will provide the post(s) and foundation, as needed to meet correct design standards.

RELOCATE: Relocate includes the removal of the sign assembly in accordance with the specifications, and the relocation/installation of the sign within the project limits, in accordance with the current design standards. If new sign post(s) are needed, they should be noted in the plans, and included in the cost of the relocated sign.

Remove: Includes the removal of the sign, post, and foundation. Do not use the "remove" operation for a sign that is to be relocated. Signs become the property of the contractor, unless otherwise noted in the plans or specs.

| **Related Items** | **Required** | **Recommended** |
|---|---|---|
| **Design Forms and Documentation** | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | Index Nos. 11200 series: 11200, 11300, 11310, 11320, 11860, 13417, 17302, 17328, 17344, 17345, 17346, 17347, 17349, 17350, 17351, 17352, 17354, 17355, 17356, 17357, 17359 |
| | **Specifications** | |
| | **Prep & Doc Manual Chapter(s)** | 7, 13 |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 21- AB** **MULTI-POST SIGN** **AS**

A= Operation
1 (Furnish & Install)
3 (Install ) Furnished by FDOT or local agency, installed on new contractor furnished posts
4 (Relocate) B=0
6 (Remove) B=0

B = Sign Panel Size, square feet
1 (50 or less)
2 (51 to 100)
3 (101 to 150)
4 (151 to 200)
5 (201 to 250)
6 (251 to 300)
7 (over 300)
9 (Custom) non-standard sign

**Notes** *B=9 (Custom) for non-standard designs. Verify with Roadway Design Office prior to opening.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 21 11 | MULTI- POST SIGN, F&I, 50 SF OR LESS | AS | | 1/1/2010 | |
| 0700 21 12 | MULTI- POST SIGN, F&I, 51 - 100 SF | AS | | 1/1/2010 | |
| 0700 21 13 | MULTI- POST SIGN, F&I, 101 - 150 SF | AS | | 1/1/2010 | |
| 0700 21 14 | MULTI- POST SIGN, F&I, 151 - 200 SF | AS | | 1/1/2010 | |
| 0700 21 15 | MULTI- POST SIGN, F&I, 201 - 250 SF | AS | | 1/1/2010 | |
| 0700 21 16 | MULTI- POST SIGN, F&I, 251 - 300 SF | AS | | 1/1/2010 | |
| 0700 21 17 | MULTI- POST SIGN, F&I, GREATER THAN 300 SF | AS | | 1/1/2010 | |
| 0700 21 31 | MULTI- POST SIGN, INSTALL, 50 SF OR LESS | AS | | 1/1/2010 | |
| 0700 21 32 | MULTI- POST SIGN, INSTALL, 51 - 100 SF | AS | | 1/1/2010 | |
| 0700 21 33 | MULTI- POST SIGN, INSTALL, 101 - 150 | AS | | 1/1/2010 | |
| 0700 21 34 | MULTI- POST SIGN, INSTALL, 151 - 200 SF | AS | | 1/1/2010 | |
| 0700 21 35 | MULTI- POST SIGN, INSTALL, 201 - 250 SF | AS | | 1/1/2010 | |
| 0700 21 36 | MULTI- POST SIGN, INSTALL, 251 - 300 SF | AS | | 1/1/2010 | |
| 0700 21 37 | MULTI- POST SIGN, INSTALL, > 300 SF | AS | | 1/1/2010 | |
| 0700 21 40 | MULTI- POST SIGN, RELOCATE | AS | | 1/1/2010 | |
| 0700 21 60 | MULTI- POST SIGN, REMOVE | AS | | 1/1/2010 | |

## 700- 22-ABC OVERHEAD TRUSS SPAN SIGN

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

FOR ITS APPLICATIONS, USE 780 items
**********

Includes sign panels, overhead structure, foundations and other incidentals required for a complete assembly. Complete design and details of the structure and foundation must be shown in the plans. Includes all components listed in the Standards and all external conduit and conductors for the service.

All signs are to be lighted, unless otherwise noted in the plans. Payment is included in assembly.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

SHSpanSign: Span Sign 11320

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter** Vol 1, Ch 7 and 29

**Trns·port**

**Other Standards** Index No. 11320

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct. 700- 22-ABC OVERHEAD TRUSS SPAN SIGN AS**

A= Operation
1 (Furnish & Install)
3 (Install) BC=00
4 (Relocate) BC=00
6 (Remove) BC=00

B= Truss Span Length (feet)
1 (50 or less)
2 (51-100)
3 (101-150)
4 (151-200)
5 (Greater than 200)

C= Sign Panel Size (square feet)
1 (300 or less)
2 (301-500)
3 (501-700)
4 (Greater than 700)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 22111 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 50 OR LESS, SIGN AREA 300 OR LESS SF | AS | | 1/1/2010 | |
| 0700 22121 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 51-100', SIGN AREA 300 OR LESS SF | AS | | 1/1/2010 | |
| 0700 22122 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 51-100', SIGN AREA 301-500 SF | AS | | 1/1/2010 | |
| 0700 22123 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 51-100', SIGN AREA 501-700 SF | AS | | 1/1/2010 | |
| 0700 22124 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 51-100', SIGN AREA >700 SF | AS | | 1/1/2010 | |
| 0700 22131 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 101-150', SIGN AREA 300 OR LESS SF | AS | | 1/1/2010 | |
| 0700 22132 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 101-150', SIGN AREA 301-500 SF | AS | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0700 22133 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH 101-150', SIGN AREA 501-700SF | AS | 1/1/2010 |
| 0700 22134 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 101-150', SIGN AREA >700 SF | AS | 1/1/2010 |
| 0700 22141 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH 151-200', SIGN AREA 300 OR LESS SF | AS | 1/1/2010 |
| 0700 22142 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH 151-200', SIGN AREA 301-500SF | AS | 1/1/2010 |
| 0700 22143 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH 151-200', SIGN AREA 501-700SF | AS | 1/1/2010 |
| 0700 22144 | OVERHEAD TRUSS SPAN SIGN, FURNISH & INSTALL, TRUSS LENGTH 151-200', SIGN AREA >700 SF | AS | 1/1/2010 |
| 0700 22151 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH >200', SIGN AREA 300 OR LESS | AS | 1/1/2010 |
| 0700 22152 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH >200', SIGN AREA 301-500 | AS | 1/1/2010 |
| 0700 22153 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH >200', SIGN AREA 501-700SF | AS | 1/1/2010 |
| 0700 22154 | OVERHEAD TRUSS SPAN SIGN,FURNISH & INSTALL, TRUSS LENGTH >200', SIGN AREA >700SF | AS | 1/1/2010 |
| 0700 22400 | OVERHEAD TRUSS SPAN SIGN, RELOCATE | AS | 1/1/2010 |
| 0700 22500 | OVERHEAD TRUSS SPAN SIGN, REPAIR | AS | 1/1/2010 |
| 0700 22600 | OVERHEAD TRUSS SPAN SIGN,REMOVE | AS | 1/1/2010 |

## 700- 23-ABC OVERHEAD TRUSS CANTILEVER SIGN

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

FOR ITS APPLICATIONS, USE 780 items
**********

Includes sign panels, overhead structure, foundations and other incidentals required for a complete assembly. Complete design and details of the structure and foundation must be shown in the plans. Includes all components listed in the Standards and all external conduit and conductors for the service.

All signs are to be lighted, unless otherwise noted in the plans. Payment is included in assembly.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Ch 7 and 29

**Trns·port**

**Other Standards** Index No. 11310

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 23-ABC** **OVERHEAD TRUSS CANTILEVER SIGN** **AS**

A= Operation
1 (Furnish & Install)
3 (Install) BC=00
4 (Relocate) BC=00
6 (Remove) BC=00

B= Truss Span Length (feet)
1 (30 or less)
2 (31-40)
3 (41-50)
4 (over 50)

C= Sign Panel Size (square feet)
1 (100 or less)
2 (101-200)
3 (201-300)
4 (Greater than 300)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 23111 | OVERHEAD TRUSS CANTILEVER SIGN,F&I,T 30 OR <,S 100 OR < | AS | | 1/1/2010 | |
| 0700 23112 | OVERHEAD TRUSS CANTILEVER SIGN,F&I,T 30 OR <,S 101-200 | AS | | 1/1/2010 | |
| 0700 23113 | OVERHEAD TRUSS CANTILEVER SIGN,F&I,T 30 OR <,S 201-300 | AS | | 1/1/2010 | |
| 0700 23114 | OVERHEAD TRUSS CANTILEVER SIGN,F&I,T 30 OR <,S > 300 | AS | | 1/1/2010 | |
| 0700 23121 | OVERHEAD TRUSS CANTILEVER SIGN,F&I, T 31-40, S 100 OR LESS | AS | | 1/1/2010 | |
| 0700 23122 | OVERHEAD TRUSS CANTILEVER SIGN,F&I, T 31-40, S 101-200 | AS | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0700 23123 | OVERHEAD TRUSS CANTILEVER SIGN, FURNISH & INSTALL, T 31-40, S 201-300 | AS | 1/1/2010 |
| 0700 23124 | OVERHEAD TRUSS CANTILEVER SIGN, FURNISH & INSTALL, T 31-40, S GREATER THAN 300 | AS | 1/1/2010 |
| 0700 23131 | OVERHEAD TRUSS CANTILEVER SIGN,F&I, T 41-50, S 100 OR < | AS | 1/1/2010 |
| 0700 23132 | OVERHEAD TRUSS CANTILEVER SIGN,F&I, T 41-50, S 101-200 | AS | 1/1/2010 |
| 0700 23133 | OVERHEAD TRUSS CANTILEVER SIGN,F&I, T 41-50, S 201-300 | AS | 1/1/2010 |
| 0700 23134 | OVERHEAD TRUSS CANTILEVER SIGN, FURNISH & INSTALL TRUSS LENGTH 41-50, SIGN AREA >300 | AS | 1/1/2010 |
| 0700 23141 | OVERHEAD TRUSS CANTILEVER SIGN,FURNISH & INSTALL TRUSS LENGTH > 50, SIGN AREA 100 OR LESS | AS | 1/1/2010 |
| 0700 23142 | OVERHEAD TRUSS CANTILEVER SIGN,FURNISH & INSTALL TRUSS LENGTH > 50, SIGN AREA 101-200 SF | AS | 1/1/2010 |
| 0700 23143 | OVERHEAD TRUSS CANTILEVER SIGN,FURNISH & INSTALL TRUSS LENGTH > 50, SIGN AREA 201-300 SF | AS | 1/1/2010 |
| 0700 23144 | OVERHEAD TRUSS CANTILEVER SIGN,FURNISH & INSTALL TRUSS LENGTH > 50, SIGN AREA >300 SF | AS | 1/1/2010 |
| 0700 23300 | OVERHEAD TRUSS CANTILEVER SIGN, INSTALL | AS | 1/1/2010 |
| 0700 23400 | OVERHEAD TRUSS CANTILEVER SIGN, RELOCATE | AS | 1/1/2010 |
| 0700 23600 | OVERHEAD TRUSS CANTILEVER SIGN, REMOVE | AS | 1/1/2010 |

## 700- 38-AAB SIGN LIGHTED OVERHEAD TRUSS- MONOTUBE

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **Standards valid through 12-31-06**

**Details** Includes sign panel, post, any foundation or breakaway base as required by the plans. Also includes sign luminaries, electrical enclosure and other incidentals required for a complete assembly. Conduit, conductors, pull boxes and service point equipment, if required to get power to the sign structure, are not covered by this item.

For projects let January 2008 and later: Ensure that complete drawings and specifications are available with the contract documents. Contact the maintaining agency prior to design; some agencies have requested standard sign structures be used, rather than monotubes.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SHMono Tube: Monotube Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 38-AAB** **SIGN LIGHTED OVERHEAD TRUSS- MONOTUBE** **AS**

AA = Length Of Sign Truss
01 (20 Or Less)
02 (21 - 40)
03 (41 - 60)
04 (61 - 80)
05 (81 - 100)
06 (101 - 120)
07 (121 - 140)
08 (141 - 160)
09 (161 - 180)
10 (181 - 200)
11 (201 - 220)

B = Square Footage Of Sign Panel
1 (100 Or Less)
2 (101 to 200)
3 (201 to 300)
4 (301 to 400)
5 (401 to 500)
6 (501 to 600)
7 (601 to 700)
8 (Over 700)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 38024 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 21-40,S301-400 | AS | | 1/1/2010 | |
| 0700 38033 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 41-60,S201-300 | AS | | 1/1/2010 | |
| 0700 38034 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 41-60,S301-400 | AS | | 1/1/2010 | |
| 0700 38036 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 41-60,S501-600 | AS | | 1/1/2010 | |
| 0700 38043 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 61-80,S201-300 | AS | | 1/1/2010 | |
| 0700 38044 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 61-80,S301-400 | AS | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0700 38045 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 61-80,S401-500 | AS | 1/1/2010 |
| 0700 38053 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 81-100,S201-300 | AS | 1/1/2010 |
| 0700 38054 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 81-100,S301-400 | AS | 1/1/2010 |
| 0700 38055 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 81-100,S401-500 | AS | 1/1/2010 |
| 0700 38056 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 81-100,S 501-600 | AS | 1/1/2010 |
| 0700 38057 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 81-100,S 601-700 | AS | 1/1/2010 |
| 0700 38058 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 81-100,S OVER 700 | AS | 1/1/2010 |
| 0700 38063 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120, S 201-300 | AS | 1/1/2010 |
| 0700 38064 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120, S301-400 | AS | 1/1/2010 |
| 0700 38065 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S401-500 | AS | 1/1/2010 |
| 0700 38066 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S501-600 | AS | 1/1/2010 |
| 0700 38067 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120, S601-700 | AS | 1/1/2010 |
| 0700 38068 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 101-120,S >700 | AS | 1/1/2010 |
| 0700 38075 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 121-140,S 401-500 | AS | 1/1/2010 |
| 0700 38094 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 161-180, S301-400 | AS | 1/1/2010 |
| 0700 38107 | SIGN LT'D OVHD TRUSS-MONOTUBE, T 181-200, S601-700 | AS | 1/1/2010 |

## 700- 39- AB SIGN LIGHTED OVERHEAD CANTILEVER- MONOTUBE

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **Standards valid through 12-31-06**

**Details** Includes sign panel, post, any foundation or breakaway base as required by the plans. Also includes sign luminaries, electrical enclosure and other incidentals required for a complete assembly. Conduit, conductors, pull boxes and service point equipment, if required to get power to the sign structure, are not covered by this item.

For projects let January 2008 and later: Ensure that complete drawings and specifications are available with the contract documents. Contact the maintaining agency prior to design; some agencies have requested standard sign structures be used, rather than monotubes.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SHMono Tube: Monotube Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 39- AB** **SIGN LIGHTED OVERHEAD CANTILEVER- MONOTUBE AS**

A = Length Of Cantilever
1 (20 Or Less)
2 (21 - 30)
3 (31 - 40)
4 (41 - 50)
5 (51 - 60)
6 (61 - 70)
7 (71 - 80)
8 (81 - 90)

B = Square Footage Of Sign Panel
1 ( 50 Or Less)
2 ( 51 to 100)
3 (101 to 150)
4 (151 to 200)
5 (201 - 250)
6 (251 - 300)
7 (Over 300)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 39 22 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 21-30, S 51-100 | AS | | 1/1/2010 | |
| 0700 39 24 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 21-30, S 151-200 | AS | | 1/1/2010 | |
| 0700 39 25 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 21-30, S 201-250 | AS | | 1/1/2010 | |
| 0700 39 26 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 21-30, S 251-300 | AS | | 1/1/2010 | |
| 0700 39 27 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 21-30, S OVE 300 | AS | | 1/1/2010 | |
| 0700 39 33 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 31-40, S101-150 | AS | | 1/1/2010 | |
| 0700 39 34 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 31-40, S151-200 | AS | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0700 39 35 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 31-40, S201-250 | AS | 1/1/2010 |
| 0700 39 36 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 31-40, S251-300 | AS | 1/1/2010 |
| 0700 39 37 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 31-40, S OVER 300 | AS | 1/1/2010 |
| 0700 39 43 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 41-50, S101-150 | AS | 1/1/2010 |
| 0700 39 44 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 41-50, S151-200 | AS | 1/1/2010 |
| 0700 39 46 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 41-50, S251-300 | AS | 1/1/2010 |
| 0700 39 47 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 41-50, OVER 300 | AS | 1/1/2010 |
| 0700 39 56 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 51-60, S251-300 | AS | 1/1/2010 |
| 0700 39 57 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 51-60, OVER 300 | AS | 1/1/2010 |
| 0700 39 67 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 61-70, OVER 300 | AS | 1/1/2010 |
| 0700 39 74 | SIGN LT'D OVHD CTLVR-MONOTUBE, C 71-80, S151-200 | AS | 1/1/2010 |

## 700- 46- AB EXISTING SIGN

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

The REMOVE item includes the removal of the sign panels and the complete support assembly.
The RELOCATE item includes the reinstallation of the complete assembly at the location shown in the plans.
The INSTALL item includes the installation of the assembly, at the location shown in the plans. Includes the breakaway base and foundation, if required for installation of the new assembly. For a multi-post assembly, the number and size of the post and the average post length must be shown in the plans.

For new/replace operations, the sign supports are included in the price for the sign. When the new sign panel differs from the existing panel, note the sizes in the plans, so that the contractor may consider the available/needed supports.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 46- AB** **EXISTING SIGN** **AS**

A = Operation
1 (Remove)
2 (Relocate) see detail
3 (Install)

B = Sign Assembly Type
5 (Span Wire)
6 (Bridge Mounted)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 46 15 | SIGN EXISTING- REMOVE, SPAN WIRE | AS | | 1/1/2010 | |
| 0700 46 16 | SIGN EXISTING- REMOVE, BRIDGE MOUNTED | AS | | 1/1/2010 | |
| 0700 46 25 | SIGN EXISTING- RELOCATE, SPAN WIRE | AS | | 1/1/2010 | |
| 0700 46 26 | SIGN EXISTING- RELOCATE, BRIDGE MOUNTED | AS | | 1/1/2010 | |

## 700- 48- AB SIGN PANEL

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This item is for the sign panel only. For posts, structures, etc, refer to other Section 700 items. For new/replace operations, the sign supports are included in the price for the sign. When the new sign panel differs from the existing panel, note the sizes in the plans, so that the contractor may consider the available/needed supports.

For multiple sign panels on an existing post or structure, detail the panels in the plans. Note: Each panel is paid separately. Tabulate by location.

The FURNISH AND INSTALL item includes the sign panel and materials required for installation on an existing post.

The INSTALL item includes the materials required for installation. The sign panel will be furnished by FDOT Maintenance or other local agency. Install on an existing post. Note in plans/specs- contractor must furnish any supports necessary to complete the installation.

The OVERLAY item includes the sign panel and the materials required for installation.

The RELOCATE item includes the removal of the sign panel and the reinstallation at the location noted in the plans.

The REPLACE item includes the new sign panel, the removal of the existing panel and the installation of the new panel.

The REMOVE item includes the removal of the existing sign panel. The sign post or structure is to remain. (If post/structure needs to be removed, see item remove items within single post sign, multi-post sign, or sign structure.)

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| References | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** 7, 13 | |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 48- AB** **SIGN PANEL** **EA**

A = Operation
1 (Furnish & Install)
2 (Install)
3 (Overlay)
4 (Relocate)
5 (Replace)
6 (Remove) B=0
7 (Furnish Only)

B = Square Footage Of Sign Panel
2 (101 to 200)
3 (201 to 300)
4 (301 to 400)
5 (401 to 500)
6 (501 to 600)
7 (601 or greater)
8 ( 15 Or Less)
9 ( 16 to 100)
0 (N/A)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 48 12 | SIGN PANELS, F & I, 101 - 200 | EA | | 1/1/2010 | |
| 0700 48 13 | SIGN PANELS, F&I, 201 - 300 | EA | | 1/1/2010 | |
| 0700 48 14 | SIGN PANELS, F&I, 301 - 400 | EA | | 1/1/2010 | |
| 0700 48 15 | SIGN PANELS, F&I, 401 - 500 | EA | | 1/1/2010 | |
| 0700 48 16 | SIGN PANELS, F&I, 501 - 600 | EA | | 1/1/2010 | |
| 0700 48 17 | SIGN PANELS, F&I, 601 - 700 | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0700 48 18 | SIGN PANELS, F & I, 15 OR < | EA | 1/1/2010 |
| 0700 48 19 | SIGN PANELS, F & I, 16 - 100 | EA | 1/1/2010 |
| 0700 48 22 | SIGN PANELS, INSTALL, 101 - 200 | EA | 1/1/2010 |
| 0700 48 28 | SIGN PANELS, INSTALL, 15 OR LESS | EA | 1/1/2010 |
| 0700 48 29 | SIGN PANELS, INSTALL, 16 - 100 | EA | 1/1/2010 |
| 0700 48 32 | SIGN PANELS, OVERLAY, 101 - 200 | EA | 1/1/2010 |
| 0700 48 33 | SIGN PANELS, OVERLAY, 201-300 | EA | 1/1/2010 |
| 0700 48 34 | SIGN PANELS, OVERLAY, 301-400 | EA | 1/1/2010 |
| 0700 48 35 | SIGN PANELS, OVERLAY, 401-500 | EA | 1/1/2010 |
| 0700 48 38 | SIGN PANELS, OVERLAY, 15 OR LESS | EA | 1/1/2010 |
| 0700 48 39 | SIGN PANELS, OVERLAY, 16 - 100 | EA | 1/1/2010 |
| 0700 48 42 | SIGN PANELS, RELOCATE, 101 - 200 | EA | 1/1/2010 |
| 0700 48 43 | SIGN PANELS, RELOCATE, 201 - 300 | EA | 1/1/2010 |
| 0700 48 44 | SIGN PANELS, RELOCATE, 301 - 400 | EA | 1/1/2010 |
| 0700 48 45 | SIGN PANELS, RELOCATE, 401 - 500 | EA | 1/1/2010 |
| 0700 48 46 | SIGN PANELS, RELOCATE, 501 - 600 | EA | 1/1/2010 |
| 0700 48 47 | SIGN PANELS, RELOCATE, 601 - 700 | EA | 1/1/2010 |
| 0700 48 48 | SIGN PANELS RELOCATE, 15 OR < | EA | 1/1/2010 |
| 0700 48 49 | SIGN PANELS RELOCATE, 16 - 100 | EA | 1/1/2010 |
| 0700 48 52 | SIGN PANELS, REPLACE, 101 - 200 | EA | 1/1/2010 |
| 0700 48 53 | SIGN PANELS, REPLACE, 201 - 300 | EA | 1/1/2010 |
| 0700 48 54 | SIGN PANELS, REPLACE, 301 - 400 | EA | 1/1/2010 |
| 0700 48 55 | SIGN PANELS, REPLACE, 401 - 500 | EA | 1/1/2010 |
| 0700 48 56 | SIGN PANELS, REPLACE, 501 - 600 | EA | 1/1/2010 |
| 0700 48 57 | SIGN PANELS, REPLACE, 601 OR > | EA | 1/1/2010 |
| 0700 48 58 | SIGN PANELS, REPLACE, 15 OR LESS | EA | 1/1/2010 |
| 0700 48 59 | SIGN PANELS, REPLACE, 16 - 100 | EA | 1/1/2010 |
| 0700 48 60 | SIGN PANELS, REMOVE | EA | 1/1/2010 |

## 700- 70- SIGN, LIGHTED OVERHEAD- BRIDGE MOUNTED

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** Includes sign panels, overhead structure, sign luminaries, electrical enclosure and other incidentals required for a complete assembly. Conduit, conductors, pull boxes and service point equipment, if required to get power to the sign structure, are not covered by this item. Complete design and details of the structure and connections to the bridge must be shown in the plans. Includes all components listed in the Standards and all external conduit and conductors for the service.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port** Normally requires SHOP DRAWINGS
**Other Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 70-** **SIGN, LIGHTED OVERHEAD- BRIDGE MOUNTED** **AS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 70 | SIGN LIGHTED OVERHEAD, BRIDGE MOUNTED | AS | | 1/1/2010 | |

## 700- 82- OVERHEAD SIGN- SPAN WIRE MOUNTED

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**
This item includes sign panels, poles, span wire assembly and other incidentals required for a complete assembly. The type and length of the poles and the size of the span wires must be shown in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port** Normally requires SHOP DRAWINGS
**Other Standards** Index No. 17356
**Specifications**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 82-** **OVERHEAD SIGN- SPAN WIRE MOUNTED** **AS**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 82 | OVERHEAD SIGN, SPAN WIRE MOUNTED | AS | | 1/1/2010 | |

## 700- 83- OVERHEAD SIGN- BRIDGE MOUNTED

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** This item includes sign panels, overhead structure, and incidentals required for a complete assembly. Complete design and details of the structure and connections to the bridge must be shown in the plans

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 83-** **OVERHEAD SIGN- BRIDGE MOUNTED** **AS**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 83 | OVERHEAD SIGN, BRIDGE MOUNTED | AS | | 1/1/2010 | |

## 700- 89- AA ELECTRIC POWERED SIGN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Valid through 6-30-11; replaced by 700-89-ABC.**

**Details** NOTE: not to be used for ITS projects; refer to 780 items for ITS systems
Refer to 699 items for Internally Illuminated signs.
Includes the complete sign assembly, support and any foundation required. Conduit, conductors, pull boxes and service point equipment, if required to get power to the sign structure, are not covered by this item. Includes all components listed in the Standards and all external conduit and conductors for the service.

"Special" signs to be approved by Roadway Design. Plan Details and/or Tech Specs required to provide materials, construction, and payment information.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** 7, 13 | |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **700- 89- AA** **ELECTRIC POWERED SIGN** **EA**

AA =
2 (Blank-Out)
3 (Changeable Message - Fiber Optics)*

**Notes**
* Consider ITS (780 items) for changeable message signs
** Special requires Tech Spec and/or Plan details. Do not use "Special" for Radar Display Sign Units; contact the Basis of Estimates Coordinator for the current status of this item.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 89 2 | SIGN, ELECTRIC POWERED, BLANK OUT | EA | | 1/1/2010 | |

## 700- 89-ABC ELECTRONIC DISPLAY SIGN

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **Effective 1-1-2011, replaces pay item 700-89- AA**

**Details**

Electronic Display Signs are categorized by type, such as Electronic Warning Sign, Electronic Regulatory Sign, Electronic Speed Feedback Sign, or Blank-Out Sign. Electronic Display Signs are often comprised of a static sign panel with an integrated electronic display portion, such as a “Your Speed” sign that displays the speed of approaching vehicles.

All electronic display signs must be listed on the Department's Approved Products List.

Designer should detail the size of sign, sign text and graphics, type of structure and/or attachment, and installation details in the plans.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** 700, Min Specs A700

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **700- 89-ABC** **ELECTRONIC DISPLAY SIGN** **AS**

A= Operation
1 (Furnish & Install)
3 (Install) Dept or local agency furnished Sign; Contractor provides support/attachment for installatior
4 (Relocate Sign) to a new location; C=0

B=Sign Type
1 (Electronic Warning Sign)
2 (Electronic Regulatory Sign)
3 (Electronic Speed Feedback Sign)
4 (Blank-Out Sign)

C=Sign Support / Attachment
1 (Single Column)
2 (Multi-Column)
3 (Overhead Attachment)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 89111 | ELECTRONIC DISPLAY SIGN, FURNISH & INSTALL, ELECTRONIC WARNING SIGN, SINGLE COLUMN | AS | | 1/1/2011 | |
| 0700 89121 | ELECTRONIC DISPLAY SIGN, FURNISH & INSTALL, ELECTRONIC REGULATORY SIGN, SINGLE COLUMN | AS | D | 1/1/2011 | |

**700- 90- AB** **SIGN, FLASHING BEACON**

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** Includes the complete sign, flashing beacon, flashing beacon controller, support and any foundation required. Conduit, conductors, pull boxes and service point equipment, if required to get power to the sign, are not covered by this item. Includes all components listed in the Standards and all external conduit and conductors for the service.

If solar powered, add note to plans to refer to the APL for solar panels.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 17344, 17882, 17881

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct. 700- 90- AB SIGN, FLASHING BEACON AS**

A = Operation
1 (Furnish & Install)
2 (Relocate)
3 (Remove)

B = Sign Type
1 (Ground Mount)
2 (Overhead Mount)
3 (Bridge Mount)
4 (Span Wire)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0700 90 11 | SIGN FLASHING BEACON, F&I GROUND MOUNT | AS | | 1/1/2010 | |
| 0700 90 12 | SIGN FLASHING BEACON, F&I, OVERHEAD MOUNT | AS | | 1/1/2010 | |
| 0700 90 13 | SIGN FLASHING BEACON, F&I, BRIDGE MOUNT | AS | | 1/1/2010 | |
| 0700 90 14 | SIGN FLASHING BEACON, F&I, SPAN WIRE | AS | | 1/1/2010 | |
| 0700 90 21 | SIGN FLASHING BEACON, RELOCATE, GROUND MOUNT | AS | | 1/1/2010 | |
| 0700 90 31 | SIGN FLASHING BEACON, REMOVE, GROUND MOUNT | AS | | 1/1/2010 | |
| 0700 90 32 | SIGN FLASHING BEACON, REMOVE, OVERHEAD MOUNT | AS | | 1/1/2010 | |
| 0700 90 33 | SIGN FLASHING BEACON, REMOVE, BRIDGE MOUNT | AS | | 1/1/2010 | |
| 0700 90 34 | SIGN FLASHING BEACON, REMOVE, SPAN WIRE | AS | | 1/1/2010 | |

## 701- 1A-BCD AUDIBLE AND VIBRATORY PAVEMENT MARKINGS

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes**

**Details**

For use on "all rural construction projects, excluding limited access facilities". More specifically, "OUTSIDE EDGE line for all 2-lane and multi-lane undivided rural projects" (From FDOT Executive Committee Policy, approved March 19, 2008)

CENTERLINE: Audible and Vibratory pavement markings should be used on centerline of two lane rural roadways ONLY when there is a history of centerline cross over crashes.

Other applications: Audible and Vibratory markings shall also be considered on flush shoulder roadways within Urban 2 and Urban 3 boundaries; noise is the primary consideration in these areas.

**********
Longitudinal stripes (along the direction of traffic) are normally applied by truck; these stripes are paid per NET MILE(solid) or GROSS MILE (skip). Most of these stripes are 6" in width. 3-9 and 10-30 skip stripes are included in the gross mile measurement. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and shall include the unpainted intervals, subject to 9-1.3. It will not include any lengths of unpainted intervals which are greater than 30 ft, per the specifications.

Refer to the specification for complete Method of Measurement information.
Accuracy: GM and NM items are measured to 1/1000 of a mile.

TRNS*PORT quantities:
For Category 0200- MOT, continue to use 710 and 102-78 items.
For Category 0300- Signing and Pavement Markings , include either item 710-90, or pay item(s) for final marking materials, as called for in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **701- 1A-BCD** **AUDIBLE AND VIBRATORY PAVEMENT MARKINGS** **Mixed**

A= Class
1 (Standard)

B= Color

1 (White)
2 (Yellow)

C= Type of Marking
1 (Solid) NM
2 (Skip) GM

D= Width
1 (6")

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0701 11111 | AUDIBLE & VIBRATORY PAVEMENT MARKING,STANDARD,WHITE, SOLID, 6" | NM | | 1/1/2010 | |
| 0701 11121 | AUDIBLE & VIBRATORY PAVEMENT MARKING,STANDARD,WHITE, SKIP, 6" | GM | | 1/1/2010 | |
| 0701 11211 | AUDIBLE & VIBRATORY PAVEMENT MARKING,STANDARD,YELLOW, SOLID, 6" | NM | | 1/1/2010 | |
| 0701 11221 | AUDIBLE & VIBRATORY PAVEMENT MARKING,STANDARD, YELLOW, SKIP,6" | GM | | 1/1/2010 | |

## 702- 1A-BCD WET WEATHER PAVEMENT MARKINGS

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes**

**Details** Wet weather markings shall only be used where there are sufficient nighttime wet weather crashes to justify the markings. A benefit /cost analysis must be performed to justify the use of these markings.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **702- 1A-BCD** **WET WEATHER PAVEMENT MARKINGS** **Mixed**

A= Class
1 (Standard)
2 (with Audible)

B= Color
1 (White)
2 (Yellow)

C= Type
1 (Solid) NM
2 (Skip) GM

D= Width
1 (6")

**Notes** formerly known as INVERTED RIB PROFILE MARKINGS

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0702 11111 | WET WEATHER MARKINGS, SOLID, WHITE, 6" | NM | T | 1/1/2010 | |
| 0702 11121 | WET WEATHER MARKINGS, SKIP, WHITE, 6" | GM | T | 1/1/2010 | |
| 0702 11211 | WET WEATHER MARKINGS, SOLID, YELLOW, 6" | NM | T | 1/1/2010 | |
| 0702 11221 | WET WEATHER MARKINGS, SKIP, YELLOW, 6" | GM | T | 1/1/2010 | |
| 0702 12111 | WET WEATHER AND AUDIBLE MARKINGS, SOLID, WHITE, 6" | NM | T | 1/1/2010 | |
| 0702 12121 | WET WEATHER AND AUDIBLE MARKINGS, SKIP, WHITE, 6" | GM | T | 1/1/2010 | |
| 0702 12211 | WET WEATHER AND AUDIBLE MARKINGS, SOLID, YELLOW, 6" | NM | T | 1/1/2010 | |
| 0702 12221 | WET WEATHER AND AUDIBLE MARKINGS, SKIP, YELLOW, 6" | GM | T | 1/1/2010 | |

## 705- 10- A OBJECT MARKER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Object Markers are to be used to mark obstructions within or adjacent to the roadway, as indicated in the Design Standards or on the plans. Additional details are available in the MUTCD, Chapter 2C.
**********

Refer to Delineators for marking the roadway alignment
**********

Reflective Railing Markers, as shown on Index 420, 421, and 422, are included in the cost of the railing; no separate payment is made for these markers.

**Related Items** **Required** **Recommended** 705-11

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter** Vol 1, 7.2.9

**Trns·port**

**Other Standards** Index No. 17349 (Object Markers), 17345 and 17346 (Delineators), 17349 (Object Markers) 17359 (Object Markers and Delineators)

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **705- 10- A** **OBJECT MARKER** **EA**

A= Type*
1 (Type 1)
2 (Type 2)
3 (Type 3)
4 (Type 4)

**Notes** *Note: The Type is defined in the MUTCD, Chapter 2C.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0705 10 1 | OBJECT MARKER, TYPE 1 | EA | | 1/1/2010 | |
| 0705 10 2 | OBJECT MARKER, TYPE 2 | EA | | 1/1/2010 | |
| 0705 10 3 | OBJECT MARKER, TYPE 3 | EA | | 1/1/2010 | |
| 0705 10 4 | OBJECT MARKER, TYPE 4 | EA | | 1/1/2010 | |

## 705- 11- A DELINEATOR

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Delineators are to be used along the side of the roadway to indicate the alignment of the roadway, as indicated in the Design Standards or on the plans. Additional details are available in the Plans Preparation Manual (PPM) Vol 1, Chapter 7, and the MUTCD, Chapter 3D.

The Department uses delineators to mark median opening for both rural and urban openings. In general, flexible delineators are used on urban median openings and nonflexible
are used on rural median openings. A high visibility median delineator should be used on traffic separators in the following locations:
1. At multilane intersections where additional visibility is required for the marking of the traffic separator,
2. Where the separator is obstructed due to crest vertical curves,
3. At intersections where the alignment thru the intersection is not straight, and
4. Where traditional flexible delineators are constantly being replaced.

High visibility median delineators can be specified for urban median separators.

High performance delineators should be used in all applications where the delineator is being used to maintain lane positions, restrict vehicle movements or any other area where the delineator is subject to being frequently hit.
**********
Refer to Object Markers to mark obstructions.

**********

Reflective Railing Markers, as shown on Index 420, 421, and 422, are included in the cost of the railing; no separate payment is made for these markers.

**Related Items** **Required** **Recommended** 705-10

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter** Vol 1, 7.2.9

**Trns·port**

**Other Standards** Index No. 17349 (Object Markers), 17345 and 17346 (Delineators), 17349 (Object Markers) 17359 (Object Markers and Delineators)

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **705- 11- A** **DELINEATOR** **EA**

A= Type, see above for selection guidance
1 (Flexible Tubular)
2 (non-Flexible)
3 (Flexible High Visibility Median)
4 (Flexible High Performance)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0705 11 1 | DELINEATOR, FLEXIBLE TUBULAR | EA | | 1/1/2010 | |
| 0705 11 2 | DELINEATOR, NON-FLEXIBLE | EA | | 1/1/2010 | |
| 0705 11 3 | DELINEATOR, FLEXIBLE HIGH VISABILITY MEDIAN | EA | | 1/1/2010 | |
| 0705 11 4 | DELINEATOR, FLEXIBLE HIGH PERFORMANCE | EA | | 1/1/2010 | |

## 706- 3- RETRO-REFLECTIVE PAVEMENT MARKER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Refer to 710- 90 for final surface payment.
Use Type B, unless otherwise shown in the plans. Use Pavement markers to supplement lane lines and gore markings, as shown on design standards.

BLUE RPMs: Refer to the Traffic Engineering Manual, Section 4.3. Note that blue RPMs are installed and maintained by local agencies.

| | | |
|---|---|---|
| **Related Items** | **Required** | **Recommended** |
| **Design Forms and Documentation** | COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the computation book form. | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | Index No. 17345, 17352 |
| | **Specifications** | |
| | **Prep & Doc Manual Chapter(s)** | 7, 13 |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct. 706- 3- RETRO-REFLECTIVE PAVEMENT MARKER EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0706 3 | RETRO-REFLECTIVE PAVEMENT MARKERS | EA | | 1/1/2010 | |

## 708- PENDING: OPTIONAL STRIPE

| | | | |
|---|---|---|---|
| | **Unit** | **Accuracy** | **PlanQuantity?** |
| **Notes** | **Reserved pay item group for possible new specification. No pay items valid at this time.** | | |
| **Details** | | | |

| | | |
|---|---|---|
| **Related Items** | **Required** | **Recommended** |
| **Design Forms and Documentation** | | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book | |
| **References** | **PPM Chapter** | |
| | **Trns·port** | |
| | **Other Standards** | |
| | **Specifications** | |
| | **Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **708-** **PENDING: OPTIONAL STRIPE**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 709- 1A-BCD TRAFFIC STRIPE- TWO REACTIVE COMPONENTS

**Unit** EA, LF, GM, NM; GK, NK **Accuracy** Each; Linear Foot; 1/1000 mile **PlanQuantity?** no

**Notes**

**Details**

Consists of "Two Reactive Component Traffic Stripe and Markings" used in areas representing final and work zone pavement markings.
Broken (skip) stripes shall consist of a succession of solid stripes.

**********
Measurement and Payment for Pavement Markings:

LINEAR FOOT ITEMS: Intended for solid stripes 8" wide and greater. The linear foot quantity shall also be used to pay for 2-4 "guide line" and 6-10 "gap extension through cross-over area" (all skip lines, except 3-9 or 10-30 skip traffic stripe sections), as indicated in the plans. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and it shall NOT include the unpainted intervals.

GROSS MILE & NET MILE ITEMS: Intended for 6" stripe. The gross mile quantity shall be used to pay for all 3-9 or 10-30 skip traffic stripes, as indicated in the plans. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and shall include the unpainted intervals, subject to 9-1.3. It will not include any lengths of unpainted intervals which are greater than 30 ft, per the specifications.
The net mile quantity shall be used to pay for all 6" solid stripe, except those identified above for payment as linear foot items.

**********
CONTRASTING ALTERNATING SKIP: Use one application of white skip thermoplastic and one application of black skip paint. Payment will be made for the length of white + length of black stripe applied.

REMOVAL ITEM (A=7): The cost for removing any conflicting pavement markings is to be included in the cost of MOT Lump Sum, per Specification 710-4 and 102-5.8. Pay item 710-17 is only to be used for Maintenance projects to remove non-conflicting pavement markings (i.e. removal of paint prior to applying a two-component reactive material; or 711-17- for removal of thermoplastic prior to applying more thermo, because the maximum thickness will be exceeded if existing thermo is not removed).

YIELD LINE: Per the MUTCD, a yield line is a series of solid white isosceles triangles, used at intersection approaches controlled by a yield sign. It is measured per linear foot, with a length approximately equal to the lane width(s).

MESSAGES: Each word is paid as one message. For example, "SUN PASS ONLY" will be paid as 3 messages. Other example messages include "YIELD", "MERGE", "LEFT", "TURN", Bike symbol and wheelchair/"Universal Symbol of Accessibility". Additional messages shown on index 17346.

Refer to the Specification for the complete Method of Measurement.

ACCURACY: LF items are measured to the nearest Linear Foot; Mile items are measured to 1/1000th of a mile; and Square Foot items are measured to the nearest square foot.

TRNS*PORT quantities:
For Category 0200- MOT, continue to use 710 and 102-78 items.
For Category 0300- Signing and Pavement Markings , include either item 710-90, or pay item(s) for final marking materials, as called for in the plans.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | See Details Above<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| References | **PPM Chapter** Vol 1, 7.2.8 for material selection guidance<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **709- 1A-BCD** **TRAFFIC STRIPE- TWO REACTIVE COMPONENTS** **EA, LF, GM,**

A= Class
1 (Standard)
7 (Remove) SF Note: When A=7, BCD= Blank

B=Color
1 (White)
2 (Yellow)
3 (Black)

C= Type of Marking
1 (Solid) NM
2 (Solid) LF
3 (Skip) GM
4 (Skip) LF
5 (Dotted/Guideline/6-10 Gap Extension) LF

D= Width
1 (6")
2 (8")
3 (12")
4 (18")
5 (24")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0709 11111 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, WHITE, SOLID, 6" | NM | | 1/1/2010 | |
| 0709 11123 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, WHITE, SOLID, 12" | LF | | 1/1/2010 | |
| 0709 11124 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, WHITE, SOLID, 18" | LF | | 1/1/2010 | |
| 0709 11125 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, WHITE, SOLID, 24" | LF | | 1/1/2010 | |
| 0709 11131 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, WHITE, SKIP, 6" | GM | | 1/1/2010 | |
| 0709 11151 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, WHITE, DOTTED/GUIDELINE/6-10 GAP EXTENSION, 6" | LF | | 1/1/2010 | |
| 0709 11211 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, YELLOW, SOLID, 6" | NM | | 1/1/2010 | |
| 0709 11222 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, YELLOW, SOLID, 8" | LF | | 1/1/2010 | |
| 0709 11224 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, YELLOW, SOLID, 18" | LF | | 1/1/2010 | |
| 0709 11251 | TRAFFIC STRIPE-TWO REACTIVE COMPONENTS, STANDARD, YELLOW, DOTTED/GUIDELINE/6-10 GAP EXTENSION, 6" | LF | | 1/1/2010 | |

## 710- 1A-BCD PAINTED PAVEMENT MARKINGS

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes** **Effective July 2010, Durable Paint is valid for use on Maintenance Contracts Only.**

**Details** Consists of paint used in areas representing final and work zone pavement markings. Broken (skip) stripes shall consist of a succession of solid stripes.

Durable Paint is valid for use on Maintenance Contracts Only. Refer to the special provisions for current requirements.
**********
Measurement and Payment for Pavement Markings:
Longitudinal stripes (along the direction of traffic) are normally applied by truck; these stripes are paid per NET MILE(solid) or GROSS MILE (skip). Most of these stripes are 6" in width. 3-9 and 10-30 skip stripes are included in the gross mile measurement. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and shall include the unpainted intervals, subject to 9-1.3. It will not include any lengths of unpainted intervals which are greater than 30 ft, per the specifications.

Transverse stripes (across the direction of traffic) are applied by walking with a hand

operated machine; these stripes are paid per linear foot. Most of these stripes are 8"-24" wide. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and it shall NOT include the unpainted intervals.

Dotted, 2-4 Guideline, and 6-10 Gap Extension Through Cross-over Area stripes are also paid per LF, due to the walking/hand application required. Most of these stripes are 6" wide.

APPROACH TO TOLL PLAZA: 12" wide Longitudinal lines used for the approach to toll plaza are paid per mile.

Non-standard stripe applications should be coordinated with the State Roadway Design Office, prior to including notes/items in the plans.
**********
CONTRASTING ALTERNATING SKIP: Use one application of white skip thermoplastic and one application of black skip paint. Payment will be made for the length of white + length of black stripe applied.

REMOVAL ITEM (A=7): The cost for removing any conflicting pavement markings is to be included in the cost of MOT Lump Sum, per Specification 710-4 and 102-5.8. Pay item 710-17 is only to be used for Maintenance projects to remove non-conflicting pavement markings (i.e. removal of paint prior to applying a two-component reactive material; or 711-17- for removal of thermoplastic prior to applying more thermo, because the maximum thickness will be exceeded if existing thermo is not removed). Use Maintenance item E710-17.

YIELD LINE: Per the MUTCD, a yield line is a series of solid white isosceles triangles, used at intersection approaches controlled by a yield sign. It is measured per linear foot, with a length approximately equal to the lane width(s).

MESSAGES: Each word is paid as one message. For example, "SUN PASS ONLY" will be paid as 3 messages. Other example messages include "YIELD", "MERGE", "LEFT", "TURN", Bike symbol and wheelchair/"Universal Symbol of Accessibility". Additional messages shown on index 17346. BLUE markings (accessible parking) will be paid per LF or EA.

Refer to the Specification for the complete Method of Measurement.

ACCURACY: LF items are measured to the nearest Foot; NM and GM items are measured to 1/1000th of a mile (about +/-5 ft); and SF items are measured to the nearest square foot.

TRNS*PORT quantities:
For Category 0200- MOT, continue to use 710 and 102-78 items.
For Category 0300- Signing and Pavement Markings , include either item 710-90, or pay item(s) for final marking materials, as called for in the plans.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | 700-050-67/68: MOT Painted Pavement Markings- Daily Worksheet/Monthly Certification of Quantities<br>Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **710- 1A-BCD** **PAINTED PAVEMENT MARKINGS** **Mixed**

A= Class
1 (Standard)
2 (Durable) for Maintenance Contracts Only
7 (Remove) SF, BCD=blank. Maintenance use only; see details above.

B= Color
1 (White)
2 (Yellow) C=1, 2, 3, 4, 5, 9
3 (Black)
4 (Blue) C=2, 6

C= Type of Marking
1 (Solid) NM; D = 1
2 (Solid) LF; D = 2, 3, 4, 5
3 (Skip) GM; D= 1 or 2*

5 (Dotted / Guide line/ 6-10 Gap Extension) LF; D=1*
6 (Message) EA; D=0, Includes YIELD message
7 (Arrows) EA; D=0
8 (Yield Line) LF; D=0 see details above
9 (Island Nose) SF; D=0

D= Width
1 (6")
2 (8")
3 (12")
4 (18")
5 (24")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0710 11111 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 6" | NM | | 1/1/2010 | |
| 0710 11122 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 8" | LF | | 1/1/2010 | |
| 0710 11123 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 12" | LF | | 1/1/2010 | |
| 0710 11124 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 18" | LF | | 1/1/2010 | |
| 0710 11125 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 24" | LF | | 1/1/2010 | |
| 0710 11131 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SKIP, 6" | GM | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0710 11132 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SKIP, 8" LANE DROP | GM | 1/1/2010 |
| 0710 11133 | PAINTED PAVEME \|NT MARKING, STANDARD, WHITE, SKIP, 12"- APPROACH TO TOLL PLAZA | GM | 1/1/2010 |
| 0710 11142 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SKIP, 8" | LF | 1/1/2010 |
| 0710 11151 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, DOTTED / GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0710 11160 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, MESSAGE | EA | 1/1/2010 |
| 0710 11170 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ARROWS | EA | 1/1/2010 |
| 0710 11180 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, YIELD LINE | LF | 1/1/2010 |
| 0710 11190 | PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, ISLAND NOSE | SF | 1/1/2010 |
| 0710 11211 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 6" | NM | 1/1/2010 |
| 0710 11222 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 8" | LF | 1/1/2010 |
| 0710 11223 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 12" | LF | 1/1/2010 |
| 0710 11224 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 18" | LF | 1/1/2010 |
| 0710 11225 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 24" | LF | 1/1/2010 |
| 0710 11231 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SKIP, 6" | GM | 1/1/2010 |
| 0710 11251 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, DOTTED/ GUIDELINE/6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0710 11260 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, MESSAGE NOSE | EA | 1/1/2010 |
| 0710 11290 | PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE | SF | 1/1/2010 |
| 0710 11311 | PAINTED PAVEMENT MARKINGS, STANDARD,BLACK, SOLID, 6" | NM | 1/1/2010 |
| 0710 11331 | PAINTED PAVEMENT MARKINGS, STANDARD,BLACK, SKIP, 6" | GM | 1/1/2010 |
| 0710 11342 | PAINTED PAVEMENT MARKINGS, STANDARD,BLACK, SKIP, 8" | LF | 1/1/2010 |
| 0710 11351 | PAINTED PAVEMENT MARKINGS, STANDARD, BLACK, DOTTED / GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0710 11421 | PAINTED PAVEMENT MARKINGS, STANDARD, BLUE, SOLID, 6" | LF | 1/1/2010 |
| 0710 11460 | PAINTED PAVEMENT MARKINGS, STANDARD,BLUE, MESSAGE | EA | 1/1/2010 |

## 710- 90- PAINTED PAVEMENT MARKINGS- FINAL SURFACE

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes** **Effective July 2009, some districts will be using Thermoplastic in Construction contracts. Coordinate with District Design for district specific policy.**

**Details** Includes payment for painted final surface pavement markings (1 or 2 applications of 710 paint), including RPMs (1 application). The number of applications will be indicated in the specifications, depending upon whether thermoplastic will be applied during construction or maintenance operations. Coordinate with District Design for district specific policy.

DOES NOT include pavement markings used for Maintenance of Traffic. Must continue to use other 710 items for MOT applications.

TRNS*PORT quantities:
For Category 0200- MOT, continue to use 710 and 102-78 items.
For Category 0300- Signing and Pavement Markings , include either item 710-90, or pay item(s) for final marking materials, as called for in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqrd: Roadway Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **710- 90-** **PAINTED PAVEMENT MARKINGS- FINAL SURFACE** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0710 90 | PAINTED PAVEMENT MARKINGS, FINAL SURFACE | LS | | 1/1/2010 | |

## 711- 1A-BCD THERMOPLASTIC PAVEMENT MARKINGS

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes** **Effective July 2009, some districts will be using Thermoplastic in Construction contracts. Coordinate with District Design for district specific policy.**

**Details** Consists of Thermoplastic used for permanent pavement markings. Thermoplastic may be

used on construction projects, in accordance with District specific policy.

Broken (skip) stripes shall consist of a succession of solid stripes.

**********
Measurement and Payment for Pavement Markings:

Longitudinal stripes (along the direction of traffic) are normally applied by truck; these stripes are paid per NET MILE(solid) or GROSS MILE (skip). Most of these stripes are 6" in width. 3-9 and 10-30 skip stripes are included in the gross mile measurement. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and shall include the unpainted intervals, subject to 9-1.3. It will not include any lengths of unpainted intervals which are greater than 30 ft, per the specifications.

Transverse stripes (across the direction of traffic) are applied by walking with a hand operated machine; these stripes are paid per linear foot. Most of these stripes are 8"-24" wide. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and it shall NOT include the unpainted intervals.

Dotted, 2-4 Guideline, and 6-10 Gap Extension Through Cross-over Area stripes are also paid per LF, due to the walking/hand application required. Most of these stripes are 6" wide.

Non-standard stripe applications should be coordinated with the State Roadway Design Office, prior to including notes/items in the plans.

**********
CONTRASTING ALTERNATING SKIP: Use one application of white skip thermoplastic and one application of black skip paint. Payment will be made for the length of white + length of black stripe applied.

REMOVAL ITEM (A=7): The cost for removing any conflicting pavement markings is to be included in the cost of MOT Lump Sum, per Specification 710-4 and 102-5.8. Pay item 710-17 is only to be used for Maintenance projects to remove non-conflicting pavement markings (i.e. removal of paint prior to applying a two-component reactive material; or 711-17- for removal of thermoplastic prior to applying more thermo, because the maximum thickness will be exceeded if existing thermo is not removed).

SUN PASS LANES: The 3-9 skip, 12" wide, per GM is used to designate a sun pass lane or similar approach to a toll plaza.

YIELD LINE: Per the MUTCD, a yield line is a series of solid white isosceles triangles, used at intersection approaches controlled by a yield sign. It is measured per linear foot, with a length approximately equal to the lane width(s).

MESSAGES: Each word is paid as one message. For example, "SUN PASS ONLY" will be paid as 3 messages. Other example messages include "YIELD", "MERGE", "LEFT", "TURN", Bike symbol and wheelchair/"Universal Symbol of Accessibility". Additional messages shown on index 17346. BLUE markings (accessible parking) will be paid per LF or EA.

Refer to the Specification for the complete Method of Measurement.

ACCURACY: LF items are measured to the nearest Linear Foot; Mile items are measured to 1/1000th of a mile; and Square Foot items are measured to the nearest square foot.

TRNS*PORT quantities:

For Category 0200- MOT, continue to use 710 and 102-78 items.
For Category 0300- Signing and Pavement Markings , include either item 710-90, or pay item(s) for final marking materials, as called for in the plans.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter** Vol 1, 7.2 for material selection and guidance<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct. 711- 1A-BCD THERMOPLASTIC PAVEMENT MARKINGS Mixed**

A=Class
1 (Standard)
2 (Refurbishment)
3 (Hot Spray)
4 (Preformed)
7 (Remove) SF Note: When A=7, BCD=blank. See details above.

B=Color
1 (White)
2 (Yellow) C=1,2,3,4,5
3 (Black) **
4 (Blue) C=2,6

**B=3 not valid as of 12-15-05; use 710 items.

C= Type of Marking
1 (Solid) NM
2 (Solid) LF
3 (Skip) GM, D=1, 2, 3
4 (Skip) LF, D=1, 2 Note: Do not use for longitudinal stripe (C=3) or Dotted/guideline (C=5) applications.
5 (Dotted/Guideline/6-10 Gap Extension) LF D=1
6 (Message) EA Includes Yield Messages, D=0
7 (Arrows) EA ; D=0
8 (Yield Line) LF, D=0

D= Width
0 valid for C=6, 7, or 8
1 (6")
2 (8")
3 (12")
4 (18")
5 (24")

## Notes

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0711 11111 | THERMOPLASTIC, STANDARD, WHITE, SOLID, 6" | NM | | 1/1/2010 | |
| 0711 11112 | THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" | NM | | 1/1/2010 | |
| 0711 11122 | THERMOPLASTIC, STANDARD, WHITE, SOLID, 8" | LF | | 1/1/2010 | |
| 0711 11123 | THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" | LF | | 1/1/2010 | |
| 0711 11124 | THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" | LF | | 1/1/2010 | |
| 0711 11125 | THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" | LF | | 1/1/2010 | |
| 0711 11131 | THERMOPLASTIC, STANDARD, WHITE, SKIP, 6" | GM | | 1/1/2010 | |
| 0711 11132 | THERMOPLASTIC, STANDARD, WHITE, 3-9 SKIP, 8" | GM | | 1/1/2010 | |
| 0711 11133 | THERMOPLASTIC, STANDARD, WHITE, SKIP, 12"- APPROACH TO TOLL PLAZA | GM | | 1/1/2010 | |
| 0711 11142 | THERMOPLASTIC, STANDARD, WHITE, SKIP, 8" | LF | | 1/1/2010 | |
| 0711 11143 | THERMOPLASTIC, STANDARD, WHITE, SKIP, 12" | LF | | 1/1/2010 | |
| 0711 11151 | THERMOPLASTIC, STANDARD, WHITE, DOTTED/GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | | 1/1/2010 | |
| 0711 11160 | THERMOPLASTIC, STANDARD, WHITE, MESSAGE | EA | | 1/1/2010 | |
| 0711 11170 | THERMOPLASTIC, STANDARD, WHITE, ARROW | EA | | 1/1/2010 | |
| 0711 11180 | THERMOPLASTIC, STANDARD, WHITE, YIELD LINE | LF | | 1/1/2010 | |
| 0711 11211 | THERMOPLASTIC, STANDARD,YELLOW, SOLID, 6" | NM | | 1/1/2010 | |
| 0711 11222 | THERMOPLASTIC, STANDARD, YELLOW, SOLID, 8" | LF | | 1/1/2010 | |
| 0711 11223 | THERMOPLASTIC, STANDARD, YELLOW, SOLID, 12" | LF | | 1/1/2010 | |
| 0711 11224 | THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" | LF | | 1/1/2010 | |
| 0711 11225 | THERMOPLASTIC, STANDARD, YELLOW, SOLID, 24" | LF | | 1/1/2010 | |
| 0711 11231 | THERMOPLASTIC, STANDARD, YELLOW, SKIP, 6" | GM | | 1/1/2010 | |
| 0711 11251 | THERMOPLASTIC, STANDARD, YELLOW, DOTTED / GUIDELINE /6-10 GAP EXTENSION, 6" | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0711 11421 | THERMOPLASTIC, STANDARD, BLUE, SOLID,6" | LF | 1/1/2010 |
| 0711 11460 | THERMOPLASTIC, STANDARD, BLUE, MESSAGE | EA | 1/1/2010 |
| 0711 12111 | THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 6" | NM | 1/1/2010 |
| 0711 12121 | THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 6" | LF | 1/1/2010 |
| 0711 12122 | THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 8" | LF | 1/1/2010 |
| 0711 12123 | THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 12" | LF | 1/1/2010 |
| 0711 12124 | THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 18" | LF | 1/1/2010 |
| 0711 12125 | THERMOPLASTIC, REFURBISHMENT, WHITE, SOLID, 24" | LF | 1/1/2010 |
| 0711 12131 | THERMOPLASTIC, REFURBISHMENT, WHITE, SKIP, 6" | GM | 1/1/2010 |
| 0711 12151 | THERMOPLASTIC, REFURBISHMENT, WHITE, DOTTED/ GUIDELINE /6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0711 12160 | THERMOPLASTIC, REFURBISH, WHITE, MESSAGE | EA | 1/1/2010 |
| 0711 12170 | THERMOPLASTIC, REFURBISH, WHITE, ARROWS | EA | 1/1/2010 |
| 0711 12211 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SOLID, 6" | NM | 1/1/2010 |
| 0711 12221 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SOLID, 6" | LF | 1/1/2010 |
| 0711 12222 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SOLID, 8" | LF | 1/1/2010 |
| 0711 12223 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SOLID, 12" | LF | 1/1/2010 |
| 0711 12224 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SOLID, 18" | LF | 1/1/2010 |
| 0711 12225 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SOLID, 24" | LF | 1/1/2010 |
| 0711 12231 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SKIP, 6" | GM | 1/1/2010 |
| 0711 12241 | THERMOPLASTIC, REFURBISHMENT, YELLOW, SKIP, 6" | LF | 1/1/2010 |
| 0711 12251 | THERMOPLASTIC, REFURBISHMENT, YELLOW DOTTED / GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0711 13111 | THERMOPLASTIC, HOT SPRAY, WHITE, SOLID, 6" | NM | 1/1/2010 |
| 0711 13122 | THERMOPLASTIC, HOT SPRAY, WHITE, SOLID, 8" | LF | 1/1/2010 |
| 0711 13123 | THERMOPLASTIC, HOT SPRAY, WHITE, SOLID, 12" | LF | 1/1/2010 |

| | | | |
|---|---|---|---|
| 0711 13124 | THERMOPLASTIC, HOT SPRAY, WHITE, SOLID, 18" | LF | 1/1/2010 |
| 0711 13125 | THERMOPLASTIC, HOT SPRAY, WHITE, SOLID, 24" | LF | 1/1/2010 |
| 0711 13131 | THERMOPLASTIC, HOT SPRAY, WHITE, SKIP, 6" | GM | 1/1/2010 |
| 0711 13151 | THERMOPLASTIC, HOT SPRAY, WHITE, DOTTED /GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0711 13160 | THERMOPLASTIC, HOT SPRAY, WHITE, MESSAGE | EA | 1/1/2010 |
| 0711 13170 | THERMOPLASTIC, HOT SPRAY, WHITE, ARROW | EA | 1/1/2010 |
| 0711 13211 | THERMOPLASTIC, HOT SPRAY, YELLOW, SOLID, 6" | NM | 1/1/2010 |
| 0711 13222 | THERMOPLASTIC, HOT SPRAY, YELLOW, SOLID, 8" | LF | 1/1/2010 |
| 0711 13223 | THERMOPLASTIC, HOT SPRAY, YELLOW, SOLID, 12" | LF | 1/1/2010 |
| 0711 13224 | THERMOPLASTIC, HOT SPRAY, YELLOW, SOLID, 18" | LF | 1/1/2010 |
| 0711 13225 | THERMOPLASTIC, HOT SPRAY, YELLOW, SOLID, 24" | LF | 1/1/2010 |
| 0711 13231 | THERMOPLASTIC, HOT SPRAY, YELLOW, SKIP, 6" | GM | 1/1/2010 |
| 0711 13251 | THERMOPLASTIC, HOT SPRAY, YELLOW, DOTTED / GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0711 14122 | THERMOPLASTIC, PREFORMED, WHITE, SOLID, 8" | LF | 1/1/2010 |
| 0711 14123 | THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" | LF | 1/1/2010 |
| 0711 14125 | THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" | LF | 1/1/2010 |
| 0711 14131 | THERMOPLASTIC, PREFORMED, WHITE, SKIP, 6" | GM | 1/1/2010 |
| 0711 14141 | THERMOPLASTIC, PREFORMED, WHITE, SKIP, 6" | LF | 1/1/2010 |
| 0711 14160 | THERMOPLASTIC, PREFORMED, WHITE, MESSAGE | EA | 1/1/2010 |
| 0711 14170 | THERMOPLASTIC, PREFORMED, WHITE, ARROWS | EA | 1/1/2010 |
| 0711 14222 | THERMOPLASTIC, PREFORMED,YELLOW,SOLID, 8" | LF | 1/1/2010 |
| 0711 14224 | THERMOPLASTIC, PREFORMED,YELLOW,SOLID,18" | LF | 1/1/2010 |
| 0711 17 | THERMOPLASTIC, REMOVE | SF | 1/1/2010 |

## 713-1AA-BCD PAVEMENT MARKING- PREFORMED TAPE

| | | | | | |
|---|---|---|---|---|---|
| **Unit** | Mixed | **Accuracy** | Refer to item structure and details | **PlanQuantity?** | no |

**Notes**

**Details**

Consists of Preformed Tape used for permanent pavement markings; it should be considered for use on concrete surfaces. For MOT (Maintenance of Traffic) operations, "temporary" removable tape should be paid under 102-911- and 102-912- items.

High performance tapes are required for longitudinal markings; standard tapes are limited to transverse lines, arrows, and messages.

Broken (skip) stripes shall consist of a succession of solid stripes.

**********
Measurement and Payment for Pavement Markings:

Longitudinal stripes (along the direction of traffic) are normally applied by truck; these stripes are paid per NET MILE(solid) or GROSS MILE (skip). Most of these stripes are 6" in width. 3-9 and 10-30 skip stripes are included in the gross mile measurement. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and shall include the unpainted intervals, subject to 9-1.3. It will not include any lengths of unpainted intervals which are greater than 30 ft, per the specifications.

Transverse stripes (across the direction of traffic) are applied by walking with a hand operated machine; these stripes are paid per linear foot. Most of these stripes are 8"-24" wide. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe, and it shall NOT include the unpainted intervals.

Dotted, 2-4 Guideline, and 6-10 Gap Extension Through Cross-over Area stripes are also paid per LF, due to the walking/hand application required. Most of these stripes are 6" wide.

Non-standard stripe applications should be coordinated with the State Roadway Design Office, prior to including notes/items in the plans.

**********
WHITE W/BLACK CONTRAST: The white with black contrast stripe is normally used as above for 6" stripe, although the total width is 9" (a 6" white stripe, plus additional black material to improve contrast). Similarly, for 8" contrast applications, the 11" total with stripe is available. Contrast markings also available for arrows, messages, and dotted/guidelines.

CONTRASTING ALTERNATING SKIP: Use one application of white skip thermoplastic and one application of black skip paint. Payment will be made for the length of white + length of black stripe applied.

REMOVAL ITEM (A=7): The cost for removing any conflicting pavement markings is to be included in the cost of MOT Lump Sum, per Specification 710-4 and 102-5.8. Pay item 710-17 is only to be used for Maintenance projects to remove non-conflicting pavement markings (i.e. removal of paint prior to applying a two-component reactive material; or 711-17- for removal of thermoplastic prior to applying more thermo, because the maximum thickness will be exceeded if existing thermo is not removed).

YIELD LINE: Per the MUTCD, a yield line is a series of solid white isosceles triangles, used at intersection approaches controlled by a yield sign. It is measured per linear foot, with a length approximately equal to the lane width(s).

MESSAGES: Each word is paid as one message. For example, "SUN PASS ONLY" will be paid as 3 messages. Other example messages include "YIELD", "MERGE", "LEFT",

"TURN", Bike symbol and wheelchair/"Universal Symbol of Accessibility". Additional messages shown on index 17346.

Refer to the Specification for the complete Method of Measurement.

ACCURACY: LF items are measured to the nearest Linear Foot; Mile items are measured to 1/1000th of a mile; and Square Foot items are measured to the nearest square foot.

TRNS*PORT quantities:
For Category 0200- MOT, continue to use 710 and 102-78 items.
For Category 0300- Signing and Pavement Markings , include either item 710-90, or pay item(s) for final marking materials, as called for in the plans.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Contractor's Certification of Quantities must be submitted. Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter** Vol 1, 7.2 for material selection and guidance<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** 7, 13 | |

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **713-1AA-BCD** **PAVEMENT MARKING- PREFORMED TAPE** **Mixed**

AA= Class
01 (Standard) Transverse markings only, per spec
02 (High Performance) req'd for longitudinal stripe, per spec
07 (Removal) SF, BCD=blank

B= Color
1 (White)
2 (Yellow)
3 (Black)
4 (Blue)
5 (White w/Black Contrast) D=0 (arrows, messages, dotted/guidelines), 3 or 7

C= Type of Marking
1 (Solid) NM
2 (Solid) LF
3 (Skip) GM
4 (Skip) LF
5 (Dotted / Guideline) LF
6 (Messages) EA, D=0
7 (Arrows) EA, D=0
8 (Yield Line) LF, D=0

D= Width
0 valid for C=6, 7, or 8

1 (6")
2 (8")
3 (9") valid for 6" white/black contrast applications only, B=5
4 (12")
5 (18")
6 (24")
7 (11") valid for 8" white/black contrast applications only, B=5

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0713101111 | PREFORMED TAPE, STANDARD, WHITE, SOLID, 6" | NM | | 1/1/2010 | |
| 0713101122 | PREFORMED TAPE, STANDARD, WHITE, SOLID, 8" | LF | | 1/1/2010 | |
| 0713101124 | PREFORMED TAPE, STANDARD, WHITE, SOLID, 12" | LF | | 1/1/2010 | |
| 0713101125 | PREFORMED TAPE, STANDARD, WHITE, SOLID, 18" | LF | | 1/1/2010 | |
| 0713101126 | PREFORMED TAPE, STANDARD, WHITE, SOLID, 24" | LF | | 1/1/2010 | |
| 0713101151 | PREFORMED TAPE, STANDARD, WHITE, DOTTED/ GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | | 1/1/2010 | |
| 0713101160 | PREFORMED TAPE, STANDARD, WHITE, MESSAGE | EA | | 1/1/2010 | |
| 0713101170 | PREFORMED TAPE, STANDARD, WHITE, ARROWS | EA | | 1/1/2010 | |
| 0713101180 | PREFORMED TAPE, STANDARD, WHITE, YIELD LINE | LF | | 1/1/2010 | |
| 0713101211 | PREFORMED TAPE, STANDARD, YELLOW,SOLID, 6" | NM | | 1/1/2010 | |
| 0713101222 | PREFORMED TAPE, STANDARD, YELLOW, SOLID, 8" | LF | | 1/1/2010 | |
| 0713101225 | PREFORMED TAPE, STANDARD, YELLOW, SOLID, 18" | LF | | 1/1/2010 | |
| 0713101251 | PREFORMED TAPE, STANDARD, YELLOW, DOTTED/ GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | | 1/1/2010 | |
| 0713101560 | PREFORMED TAPE, STANDARD, WHITE W/BLACK CONTRAST, MESSAGE | EA | | 1/1/2010 | |
| 0713101570 | PREFORMED TAPE, STANDARD, WHITE W/BLACK CONTRAST, ARROWS | EA | | 1/1/2010 | |
| 0713101580 | PREFORMED TAPE, STANDARD, WHITE W/BLACK CONTRAST, YIELD LINE | LF | | 1/1/2010 | |
| 0713102111 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE, SOLID, 6" | NM | | 1/1/2010 | |
| 0713102122 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE, SOLID, 8" | LF | | 1/1/2010 | |
| 0713102124 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE, SOLID, 12" | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0713102126 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE, SOLID, 24" | LF | 1/1/2010 |
| 0713102131 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE, SKIP, 6" | GM | 1/1/2010 |
| 0713102142 | PREFORMED TAPE, HP, WHITE, SKIP, 8" | LF | 1/1/2010 |
| 0713102151 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE, DOT/GUIDELINE/ 6-10 GAP EXTENSION, 6" | LF | 1/1/2010 |
| 0713102211 | PREFORMED TAPE, HIGH PERFORMANCE, YELLOW, SOLID, 6" | NM | 1/1/2010 |
| 0713102222 | PREFORMED TAPE, HIGH PERFORMANCE, YELLOW, SOLID, 8" | LF | 1/1/2010 |
| 0713102231 | PREFORMED TAPE, HIGH PERFORMANCE, YELLOW, SKIP, 6" | GM | 1/1/2010 |
| 0713102251 | PREFORMED TAPE, HIGH PERFORMANCE, YELLOW, DOT/GUIDE/ 6-10 GAP, 6" | LF | 1/1/2010 |
| 0713102331 | PREFORMED TAPE, HIGH PERFORMANCE, BLACK, SKIP, 6" | GM | 1/1/2010 |
| 0713102533 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE/BLACK CONTRAST, SKIP, 9" | GM | 1/1/2010 |
| 0713102537 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE W/BLACK CONTRAST, SKIP, 11" | GM | 1/1/2010 |
| 0713102547 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE/BLACK CONTRAST, SKIP, 11" | LF | 1/1/2010 |
| 0713102553 | PREFORMED TAPE, HIGH PERFORMANCE, WHITE/BLACK CONTRAST, DOTTED/GUIDELINE/6-10 GAP EXTENSION , 9" | LF | 1/1/2010 |
| 0713103160 | PREFORMED TAPE, TEMPORARY, WHITE, MESSAGE | EA | 1/1/2010 |
| 0713103170 | PREFORMED TAPE, TEMPORARY, WHITE, ARROWS | EA | 1/1/2010 |
| 0713107 | PREFORMED TAPE, REMOVE | SF | 1/1/2010 |

## 714- 1-ABC MOTORIST AID CALL BOX

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

New installations- estimate quantity on basis of 2 per mile (1 per 804 meters) in project length for rural areas.

For projects let through June 2009: Per Index, concrete pad is paid under Class II concrete, Misc.

For projects let July 2009 and later: Concrete pad is included in cost of call box assembly. Refer to updated design standards.

NOTE: ITS/Call Box system pay items removed from BOE structure. They may be restored upon approval of Traffic Ops Office.
For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed

for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 17600

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 1-ABC** **MOTORIST AID CALL BOX** **AS**

A = Operation
1 (Furnish & Install)
3 (Install) BC=00
4 (Modify Existing Roadside Terminal) BC=00
5 (Relocate Existing Roadside Terminal) BC=00
6 (Remove) BC=00
7 (Refurnish) BC=00

B = Installation Type
1 (Roadside Call Terminal)
2 (Call Box Assembly)
3 (Central Terminal)

C = Form
1 (Coded Message, Radio)
2 (Coded Message, Wire)
3 (Voice, Radio)
4 (Voice, Wire)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0714 1121 | MOTORIST AID CALL BOX, F&I, ROADSIDE CALL TERMINAL, CODED MESSAGE RADIO | AS | T | 1/1/2010 | |
| 0714 1123 | MOTORIST AID CALL BOX, F&I, CALL BOX ASSEMBLY, VOICE, RADIO | AS | T | 1/1/2010 | |
| 0714 1300 | MOTORIST AID CALL BOX, INSTALL | AS | | 1/1/2010 | |
| 0714 1400 | MOTORIST AID CALL BOX, MODIFY EXISTING ROADSIDE TERMINAL | AS | | 1/1/2010 | |

| | | | | | |
|---|---|---|---|---|---|
| 0714 1413 | MOTORIST AID CALL BOX, MODIFY, ROADSIDE CALL TERMINAL, VOICE RADIO | AS | | 1/1/2010 | 12/31/2010 |
| 0714 1500 | MOTORIST AID CALL BOX, RELOCATE | AS | | 1/1/2010 | |
| 0714 1600 | MOTORIST AID CALL BOX, REMOVE | AS | T | 1/1/2010 | |

## 714- 2- A MOTORIST AID CONSOLE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 2- A** **MOTORIST AID CONSOLE** **EA**

A = Form
1 (Coded Message, Radio)
2 (Coded Message, Wire)
3 (Voice, Radio)
4 (Voice, Wire)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 714- 3- AB MOTORIST AID COMPONENTS (F&I) CONSOLE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed

for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 3- AB** **MOTORIST AID COMPONENTS (F&I) CONSOLE** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) Not Valid W/ B= 2, 3, & 4.

B = Form
1 (Antenna)
2 (290' Guyed Tower)
3 (190' Guyed Tower)
4 (190' Self Support Tower)
5 (Console)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**714- 4-ABB** **MOTORIST AID MICROWAVE COMPONENT**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct. 714- 4-ABB MOTORIST AID MICROWAVE COMPONENT EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)

BB =
01 (10,000 F9 Microwave 1.9 GHz)
02 ( 1,600 F9 Microwave 2.9 GHz)
03 ( 800 F9 Microwave 2.1 GHz)
04 (10,000 F9 Microwave 6.5 GHz)
05 (Master Alarm System)
06 (District Alarm System)
07 (Alarm Monitor)
08 ( 6' Grid Microwave Antenna)
08 (6' Grid Microwave Antenna)
09 (8' Grid Microwave Antenna)
10 (10' Grid Microwave Antenna)
11 (10' Solid Microwave Antenna)
12 (72 MHz Antenna)
13 (150-170 MHz Antenna)
14 ( 40- 50 MHz Antenna)
15 (450-460 MHz Antenna)
16 (CB Antenna)
17 (1/2" Foam Connectors)
18 (7/8" Air Connectors)
19 (Dehydrator And Manifold)
20 (1 5/8" Air Connectors)
21 (72 MHz Base Station)
22 (Waveguide Connectors)
23 (DTMF Call Unit)
24 (DTMF Card / Phone)
25 (Power Divider Harness)
26 (Transmitter Combiner)
27 (Receiver Multicoupler)
28 (6 GHz Digital Radio)
29 (10 GHz Digital Radio)
30 (8' Solid Microwave Antenna)
31 (6' Solid Microwave Antenna)
32 (4' Solid Microwave Antenna)
33 (72 MHz Antenna, High Gain)

34 (Phone Ringing Generator)
35 (10 GHz Waveguide Connector)
36 (Phone System)
37 (Channel Modem, Analog)
38 (Channel Modem, Digital)
39 (Pressurized Connector)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 714- 5-ABB MOTORIST AID MICROWAVE TOWER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 5-ABB** **MOTORIST AID MICROWAVE TOWER** **EA**

A = Operation
1 (Furnish & Install)
2 (Transport)
3 (Disassemble)
4 (Modify) BB = 00

BB = Tower Height
10 ( 51' - 75')
11 ( 76' -100')
12 (101' -125')
13 (126' -150')
14 (151' -175')
15 (176' -200')
16 (201' -225')

17 (226' -250')
18 (251' -275')
19 (276' -300')
20 (301' -325')
21 (326' -350')
22 (351' -375')
23 (376' -400')
24 (401' -425')
25 (426- 450')

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 714- 7- A MOTORIST AID TRANSMISSION LINES

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 7- A** **MOTORIST AID TRANSMISSION LINES** **LF**

A =
1 (1/2" Foam Transmission Line)
2 (7/8" Air Transmission Line)
3 (1 5/8" Air Transmission Line)
4 (2.01" X 1.16" Elliptic Waveguide)
5 (7/8" Foam Transmission Line)
6 (1.32" X .80" 10 GHz Elliptical Waveguide)
7 (1 5/8" Foam Transmission Line)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

## 714- 8- A MOTORIST AID MICROWAVE COMMUNICATION SHELTER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 8- A** **MOTORIST AID MICROWAVE COMMUNICATION SHELTER** **EA**

A = Area In Square Feet
1 ( <100 Sq. Ft. Shelter)
2 (100-125 Sq. Ft. Shelter)
3 (126-150 Sq. Ft. Shelter)
4 (151-175 Sq. Ft. Shelter)
5 (176-200 Sq. Ft. Shelter)
6 (201-250 Sq. Ft. Shelter)
7 (251-300 Sq. Ft. Shelter)
8 (301-400 Sq. Ft. Shelter)
9 ( >400 Sq. Ft. Shelter)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

## 714- 9- A MOTORIST AID TECHNICAL SUPPORT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 9- A** **MOTORIST AID TECHNICAL SUPPORT** **EA**

A =
1 (Training Session Number 1)
2 (Training Session Number 2)
3 (Training Session Number 3)
4 (Testing Callboxes)
5 (Control Console)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**714- 73-** **RELAY STATION COMMUNICATION ASSEMBLY**

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 73-** **RELAY STATION COMMUNICATION ASSEMBLY** **AS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 714- 74- CONTROL STATION COMMUNICATION ASSEMBLY

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 74-** **CONTROL STATION COMMUNICATION ASSEMBLY** **AS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 714- 75-ABB MOTORIST AID MICROWAVE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Refer to PPM for recommended pay item plan note.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the computation book form. | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**T: Plan Details and/or Technical Specifications required**<br>**Prep & Doc Manual Chapter(s)** 6, 7, 13 | |

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **714- 75-ABB** **MOTORIST AID MICROWAVE** **EA**

A =
1 (Spares)
2 (Test Equipment)

BB =
01 (Transmitter Baseband Combiner Card)
02 (Transmitter Baseband Amplifier Card)
03 (Transmitter Logic Card)
04 (Receiver Splitter Card)
05 (Receiver Baseband Amplifier Card)
06 (Receiver Logic Card)
07 (4w/4w Baseband Bridge)
08 (Alarm Card)
09 (Ringing Generator 5w)
10 (Hybrid Term Set
11 (FXO Signaling Adaptor)
12 (FXS Signaling Adaptor)
13 (Bypass Card W/Attenuators)
14 (Line Pilot Sync Unit)
15 (Two-Step Group Translator)
16 (Dual Hybrid Card Kit)
17 (Equalizer / Timer For Battery Charger)
18 (RF Power Meter)
19 (RF Power Sensor)
20 (Tracking Generator)
21 (Selective Level Meter)
22 (Frequency Counter)
23 (RF Attenuator 20w, 30 Db)

24 (Variable Attenuator, 6-66 Db)
25 (Trans, Imparrment Measurement Set -TIMS)
26 (Digital Multimeter)
27 (4w/4w DTMF Bridge)
28 (Test Fixtures)
29 (Transmitter Power Amplifier)
30 (Receiver RF Amplifier)
31 (Transmitter Oscillator)
32 (Transmitter Modulator)
33 (Receiver Local Oscillator)
34 (Receiver If Amplifier)
35 (Remote Alarm Terminal)
36 (Selective Call Unit)
37 (Channel Modem)
38 (HF Combiner) S)
39 (DTMF Orderwire Unit)
40 (72 MHz Base Transmitter Unit)
41 (72 MHz Base Receiver Unit)
42 (72 MHz Base Bridge)
43 (Phone Ringing Generator)
44 (Digital Channel/Codec)
45 (Spectrum Analyzer)
46 (Signal Generator)
47 (Bit Error Rate Test Set)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 715- 1- AB LIGHTING- CONDUCTORS

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

Includes conductors as per the plans and standard indexes. Design quantity shall be based on the length of single conductor in horizontal measurement.

REMOVE & DISPOSE: Contractor takes ownership of the removed material. Any salvage value may be incorporated into the contractor's bid price.

REMOVE & STOCKPILE: FDOT or maintaining agency retains ownership. Do not use this item, unless specifically requested by District Maintenance or the maintaining agency.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 17500, 17501, 17502

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct. 715- 1- AB LIGHTING- CONDUCTORS LF**

A= Operation
1 (Furnish & Install)
5 (Adjust /Modify)B=0
6 (Remove & Dispose) B=0, Note: Contractor takes ownership.
7 (Remove & Stockpile)B=0, Note: ONLY when requested by maintaining agency
8 (Place out of Service) B=0

B= Size
1 (No. 10 or smaller)
2 (No 8 to No. 6)
3 (No. 4 to No. 2)
4 (No. 1 to No. 0)
5 (No. 1/0 to No. 3/0)
6 (No. 4/0 or larger)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 1 11 | LIGHTING CONDUCTORS, F&I, INSULATED, NO. 10 OR < | LF | | 1/1/2010 | |
| 0715 1 12 | LIGHTING CONDUCTORS, F&I, INSULATED, NO.8 - 6 | LF | | 1/1/2010 | |
| 0715 1 13 | LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2 | LF | | 1/1/2010 | |
| 0715 1 14 | LIGHTING CONDUCTORS, F&I, INSULATED, NO 1 TO NO 0 | LF | | 1/1/2010 | |
| 0715 1 15 | LIGHTING CONDUCTORS, F&I, NO.1/0 - 3/0 (0 to 000) | LF | | 1/1/2010 | |
| 0715 1 16 | LIGHTING CONDUCTORS, F&I, NO.4/0 (0000) OR LARGER | LF | | 1/1/2010 | |
| 0715 1 50 | LIGHTING CONDUCTORS, ADJUST/MODIFY | LF | T | 1/1/2010 | |
| 0715 1 60 | LIGHTING CONDUCTORS, REMOVE & DISPOSE, CONTRACTOR OWNS | LF | | 1/1/2010 | |
| 0715 1 70 | LIGHTING CONDUCTORS, REMOVE & STOCKPILE, FDOT OR MAINT AGENCY OWNS | LF | T | 1/1/2010 | |
| 0715 1 80 | LIGHTING CONDUCTORS, PLACE OUT OF SERVICE | LF | T | 1/1/2010 | |

**715- 2- AB** **LIGHTING CONDUIT**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For highway lighting applications only. Includes conduit, elbows, sweeps, connecting hardware, trenching and backfill as per the plans and standard indexes. Also includes the cost of restoring cut pavement, sidewalks, sod, etc. to its original condition.

Use 'Underground' in locations where the placement of the conduit will not necessitate saw-cutting of pavement. Most conduit placed on new construction projects will be placed underground prior to the placement of pavement, and should be paid for as Underground.

Underpavement should be used when it is necessary to saw-cut and backfill the pavement in order to place the conduit, i.e. under EXISTING PAVEMENT.

Additional conduit placed for future use should be detailed in the plans; tabulate quantity as furnished & installed conduit.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards** Index No. 17721

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 2- AB** **LIGHTING CONDUIT** **LF**

A= Operation
1 (Furnish & Install)

B = Location
1 (Underground)
2 (Underpavement Sawcut) Note: Only when sawcutting is necessary for locations under EXISTING PAVEMENT
3 (Surface Mount)

**Notes** See details above for furnish item

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 2 11 | LIGHTING - CONDUIT, F&I, UNDERGROUND | LF | | 1/1/2010 | |
| 0715 2 12 | LIGHTING - CONDUIT, F&I, UNDER EXISTING PAVEMENT SAWCUT | LF | | 1/1/2010 | |
| 0715 2 13 | LIGHTING CONDUIT, F&I, SURFACE MOUNT | LF | | 1/1/2010 | |

## 715- 4-ABC LIGHT POLE COMPLETE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Effective January 2008; replaces 715-4A-BCC**

**Details**

For standard light pole designs; poles listed on Qualified Products List (QPL). If a special foundation is needed, select the pay item based on the pole type; detail the special foundation in the plans, including concrete and steel quantities to be included in light pole payment. No separate payment (concrete, steel, or drilled shaft pay items) for special foundation.

INSTALL: Plans or specs should identify agency furnishing pole, as well as pick-up or delivery instructions. Payment includes foundation and all incidentals for installation/operation.

REMOVE: Plans or specs should identify if contractor is to take ownership of the poles, stockpile, or deliver to a FDOT maintenance yard. Plans/specs to indicate if foundation is to be removed.

RELOCATE: Plans or specs should identify location(s) of poles, as well as compensation: Payment includes removal of old foundation, installation of new foundation, and all incidentals for installation/operation. Detail in plans.

Use C=Custom only when the pole height is non-standard. Plans should clearly identify height for pole(s) included under this item. Remaining design standards apply.
**********
For Special Design (non-standard) light poles, refer to 715-5AB-CDD.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, 7.3

**Trns·port**

**Other Standards** Index No. 17501, 17503, 17515
(Index No. 17503 valid through July 2009)
Structures Manual, Vol 9

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct. 715- 4-ABC LIGHT POLE COMPLETE EA**

A= Operation
0 (Furnish & Install Standard Pole, Special Foundation) *foundations other than as shown on index 17515; details in plans
1 (Furnish & Install) Standard pole, standard foundation
3 (Install) BC=00, Pole furnished by local agency
4 (Relocate) BC=00, see detail above.
6 (Remove) BC=00

B= Wind Speed (mph)
1 (150)
2 (130)
3 (110)

C= Pole Height (feet)
1 (40)
2 (45)
3 (50)
9 (Custom height)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 4011 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION,WIND SPEED 150, POLE HEIGHT 40' | EA | | 1/1/2010 | |
| 0715 4012 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION,WIND SPEED 150, POLE HEIGHT 45' | EA | | 1/1/2010 | |
| 0715 4013 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION,WIND SPEED 150, POLE HEIGHT 50' | EA | | 1/1/2010 | |
| 0715 4019 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION,WIND SPEED 150, CUSTOM HEIGHT | EA | | 1/1/2010 | |
| 0715 4021 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION,WIND SPEED 130, POLE HEIGHT 40' | EA | | 1/1/2010 | |
| 0715 4022 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION, WIND SPEED 130,POLE HEIGHT 45' | EA | | 1/1/2010 | |
| 0715 4023 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION, WIND SPEED 130,POLE HEIGHT 50' | EA | | 1/1/2010 | |
| 0715 4033 | LIGHT POLE COMPLETE,F&I, SPECIAL FOUNDATION,WIND SPEED 110, POLE HEIGHT 50' | EA | | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0715 4111 | LIGHT POLE COMPLETE, F&I, WIND SPEED 150, POLE - 40' | EA | T | 1/1/2010 |
| 0715 4112 | LIGHT POLE COMPLETE, F&I, WIND SPEED 150, POLE - 45' | EA | T | 1/1/2010 |
| 0715 4113 | LIGHT POLE COMPLETE, F&I, WIND SPEED 150, POLE HEIGHT- 50' | EA | | 1/1/2010 |
| 0715 4119 | LIGHT POLE COMPLETE, F&I, WIND SPEED 150, CUSTOM HEIGHT | EA | T | 1/1/2010 |
| 0715 4121 | LIGHT POLE COMPLETE, F&I, WIND SPEED 130, POLE HEIGHT 40' | EA | | 1/1/2010 |
| 0715 4122 | LIGHT POLE COMPLETE, F&I, WIND SPEED 130, POLE HEIGHT 45' | EA | | 1/1/2010 |
| 0715 4123 | LIGHT POLE COMPLETE, F&I, WIND SPEED 130, POLE HEIGHT 50' | EA | | 1/1/2010 |
| 0715 4129 | LIGHT POLE COMPLETE, F&I, WIND SPEED 130, CUSTOM HEIGHT | EA | T | 1/1/2010 |
| 0715 4131 | LIGHT POLE COMPLETE, F&I, WIND SPEED 110, POLE HEIGHT 40' | EA | | 1/1/2010 |
| 0715 4132 | LIGHT POLE COMPLETE, F&I, WIND SPEED 110, POLE HEIGHT 45' | EA | | 1/1/2010 |
| 0715 4133 | LIGHT POLE COMPLETE, F&I, WIND SPEED 110, POLE HEIGHT 50' | EA | | 1/1/2010 |
| 0715 4139 | LIGHT POLE COMPLETE, F&I, WIND SPEED 110, CUSTOM HEIGHT | EA | | 1/1/2010 |
| 0715 4300 | LIGHT POLE COMPLETE, INSTALL | EA | | 1/1/2010 |
| 0715 4400 | LIGHT POLE COMPLETE, RELOCATE | EA | | 1/1/2010 |
| 0715 4600 | LIGHT POLE COMPLETE, REMOVE | EA | | 1/1/2010 |

## 715- 5- AB LUMINAIRE & BRACKET ARM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Includes the bracket arm, luminaire with lamp and all necessary mounting hardware as per the plans and indexes.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards** Index No. 17500, 17501

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 5- AB** **LUMINAIRE & BRACKET ARM** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) B=0
4 (Relocate) B=0
5 (Remove) B=0

B = Material Type
1 (Aluminum)
2 (Galvanized Steel)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 5 11 | LUMINAIRE & BRACKET ARM, F&I, ALUMINUM | EA | | 1/1/2010 | |
| 0715 5 12 | LUMINAIRE & BRACKET ARM, F&I, GALVANIZED STEEL | EA | | 1/1/2010 | |
| 0715 5 30 | LUMINAIRE & BRACKET ARM, INSTALL | EA | | 1/1/2010 | |
| 0715 5 50 | LUMINAIRE & BRACKET ARM, REMOVE | EA | | 1/1/2010 | |

## 715- 7- AB LOAD CENTER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Includes all components listed in the Standards and all external and internal conduit and conductors for the service.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other Standards** Index No. 17504
**Specifications**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 7- AB** **LOAD CENTER** **EA**

A = Operation
1 (Furnish & Install)
2 (Rework)
3 (Relocate)
4 (Remove)

B =Service
1 (Secondary Voltage)
2 (Primary Voltage)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 7 11 | LOAD CENTER, F&I, SECONDARY VOLTAGE | EA | | 1/1/2010 | |
| 0715 7 12 | LOAD CENTER, F&I, PRIMARY VOLTAGE | EA | | 1/1/2010 | |
| 0715 7 21 | LOAD CENTER, REWORK, SECONDARY VOLTAGE | EA | | 1/1/2010 | |
| 0715 7 31 | LOAD CENTER, RELOCATE, SECONDARY VOLTAGE | EA | | 1/1/2010 | |
| 0715 7 41 | LOAD CENTER, REMOVE, SECONDARY VOLTAGE | EA | | 1/1/2010 | |
| 0715 7 42 | LOAD CENTER, REMOVE, PRIMARY VOLTAGE | EA | | 1/1/2011 | |

## 715- 10- A LIGHT POLE FOUNDATION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

DO NOT USE WITH LIGHT POLE COMPLETE. Foundation is included in cost of complete pole installation, relocate, or removal.

This item is normally used for maintenance type functions. Includes the foundation and anchor bolts with lock nuts and washers as per the plans and standard indexes. Includes all components listed in the Standards and all external conduit and conductors for the service.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS for Furnish & Install Items

**Other Standards** Index No. 17501, 17503, 17504
(Index No. 17503 valid through July 2009)

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 10- A** **LIGHT POLE FOUNDATION** **EA**

A = Operation
2 (Furnish & Install) Do not use with F&I or Relocate light poles. Pole furnished by FDOT or local agency.
3 (Repair)
4 (Straighten Existing Foundation)
5 (Remove) Do not use with light pole removal.

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 10 2 | LIGHT POLE FOUNDATION, F&I | EA | | 1/1/2010 | |
| 0715 10 3 | LIGHT POLE FOUNDATION, REPAIR | EA | | 1/1/2010 | |
| 0715 10 4 | LIGHT POLE FOUNDATION, STRAIGHTEN EXISTING FOUNDATION | EA | | 1/1/2010 | |
| 0715 10 5 | LIGHT POLE FOUNDATION, REMOVE | EA | | 1/1/2010 | |

## 715- 11-ABC LUMINAIRE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Includes the luminaire with lamp and necessary mounting hardware as per the plans and standard indexes.

DO NOT USE WITH items 715-4-ABC Light Pole Complete or 715-5AB-CDD Light Pole Complete, Special Design; the luminaire is included with the complete pole.

DO NOT USE WITH NEW SIGN INSTALLATIONS; lighting for new signs is included in the cost of the sign. Refer to Section 700 of the specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS for Furnish & Install Items

**Other Standards** Index No. 17500, 17501, 17502, 17505

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 11-ABC** **LUMINAIRE** **EA**

A = Operation
1 (Furnish & Install)
3 (Install) BC=00
4 (Relocate) BC=00
5 (Remove) BC=00
6 (Repair & Reinstall) BC=00

B = Classification
1 (Roadway) Do not use with "Light Pole, Complete" or "Light Pole, Special Design"
2 (Underdeck)
3 (Sign) for Retrofits only; no separate payment for lighting on new signs

C = Type
1 (Cobra Head)
2 (High Mast)
3 (Pole Top)
4 (Shoe Box)
5 (Wall Mount)
6 (Pendant Hung)
7 (Sign Mount)
8 (Flood)
9 (Special)*

**Notes** *Selected Items require Tech Spec and/or Plan Details.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 11111 | LUMINAIRE, F&I, ROADWAY, COBRA HEAD | EA | | 1/1/2010 | |
| 0715 11112 | LUMINAIRE, F&I, ROADWAY, HIGH MAST | EA | | 1/1/2010 | |
| 0715 11113 | LUMINAIRE, F&I, ROADWAY, POLE TOP | EA | | 1/1/2010 | |
| 0715 11114 | LUMINAIRE, F&I, ROADWAY, SHOE BOX | EA | | 1/1/2010 | |
| 0715 11115 | LUMINAIRE, F&I, ROADWAY, WALL MOUNT | EA | | 1/1/2010 | |
| 0715 11116 | LUMINAIRE, F&I, ROADWAY, PENDANT HUNG | EA | | 1/1/2010 | |
| 0715 11118 | LUMINAIRE, F&I, ROADWAY, FLOOD | EA | | 1/1/2010 | |
| 0715 11119 | LUMINAIRE, F&I, ROADWAY SPECIAL | EA | | 1/1/2010 | |
| 0715 11125 | LUMINAIRE, F&I, UNDER DECK, WALL MOUNT | EA | | 1/1/2010 | |
| 0715 11126 | LUMINAIRE, F&I, UNDER DECK, PENDANT HUNG | EA | | 1/1/2010 | |
| 0715 11127 | LUMINAIRE, F&I, SIGN, SIGN MOUNT | EA | | 1/1/2010 | |
| 0715 11128 | LUMINAIRE, F&I, UNDER DECK, FLO0D | EA | | 1/1/2010 | |
| 0715 11129 | LUMINAIRE, F&I, UNDER DECK, SPECIAL | EA | | 1/1/2010 | |
| 0715 11136 | LUMINAIRE, F&I, SIGN, PENDANT HUNG | EA | | 1/1/2010 | |
| 0715 11137 | LUMINAIRE, F&I, SIGN, SIGN MOUNT | EA | | 1/1/2010 | |
| 0715 11138 | LUMINAIRE, F&I, SIGN, FLOOD | EA | | 1/1/2010 | |
| 0715 11139 | LUMINAIRE, F&I, SIGN, SPECIAL | EA | | 1/1/2010 | |
| 0715 11400 | LUMINAIRE, RELOCATE | EA | | 1/1/2011 | |
| 0715 11500 | LUMINAIRE, REMOVE | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0715 11600 | LUMINAIRE, REPAIR & REINSTALL | EA | 1/1/2010 |

## 715- 14- AB LIGHTING- PULL BOX

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Includes the pull box and cover as per plans and standard indexes.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS for Furnish & Install Items

**Other Standards** Index No. 17500, 17503
(Index No. 17503 valid through July 2009)

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 14- AB** **LIGHTING- PULL BOX** **EA**

A = Operation
1 (Furnish & Install)
4 (Relocate)
5 (Remove)
6 (Furnish & Install Cover Only)
7 (Repair)

B = Placement
1 (Roadside) - Moulded
2 (Sidewalk)
3 (Embedded) - Bridge
4 (Surface Mount)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 14 11 | LIGHTING - PULL BOX, F&I, ROADSIDE-MOULDED | EA | | 1/1/2010 | |
| 0715 14 12 | LIGHTING - PULL BOX, F&I, SIDEWALK | EA | | 1/1/2010 | |
| 0715 14 13 | LIGHTING - PULL BOX, F&I, EMBEDDED BRIDGE | EA | | 1/1/2010 | |
| 0715 14 14 | LIGHTING - PULL BOX, F&I, SURFACE MOUNT | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0715 14 32 | LIGHTING - PULL BOX, INSTALL, SIDEWALK | EA | 1/1/2010 |
| 0715 14 41 | LIGHTING - PULL BOX, RELOCATE, ROADSIDE - MOULDED | EA | 1/1/2010 |
| 0715 14 42 | LIGHTING - PULL BOX, RELOCATE, SIDEWALK | EA | 1/1/2010 |
| 0715 14 51 | LIGHTING - PULL BOX, REMOVE, ROADSIDE, MOULDED | EA | 1/1/2010 |
| 0715 14 52 | LIGHTING - PULL BOX, REMOVE, SIDEWALK | EA | 1/1/2010 |
| 0715 14 54 | LIGHTING - PULL BOX, REMOVE, SURFACE MOUNT | EA | 1/1/2010 |
| 0715 14 61 | LIGHTING - PULL BOX, F&I COVER ONLY, ROADSIDE-MOULDED | EA | 1/1/2010 |
| 0715 14 62 | LIGHTING - PULL BOX, F&I COVER ONLY, SIDEWALK | EA | 1/1/2010 |
| 0715 14 64 | LIGHTING - PULL BOX, F&I COVER ONLY, SURFACE MOUNT | EA | 1/1/2010 |
| 0715 14 71 | LIGHTING - PULL BOX, REPAIR, ROADSIDE-MOULDED | EA | 1/1/2010 |

## 715- 19- A LIGHTING- SURGE PROTECTOR

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 19- A** **LIGHTING- SURGE PROTECTOR** **EA**

A =
1 (Pole Base)
2 (Install Only)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 19 1 | LIGHTING - SURGE PROTECTOR, POLE BASE | EA | T | 1/1/2010 | |

## 715- 19-ABC HIGH MAST LIGHT POLE, COMPLETE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Includes the pole, luminaires with lamps, lowering system, breakers and anchor bolts with lock nuts and
washers as indicated in the plans and the Design Standards.

NO SEPARATE PAYMENT for the foundation, drilled shaft excavation, CSL tubes, or concrete pad around pole or pull box; all foundation work is included in the payment for a complete light pole.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 19-ABC** **HIGH MAST LIGHT POLE, COMPLETE** **EA**

A= Operation
1 (Furnish & Install)
3 (Install) BC=00, Pole furnished by local agency
6 (Remove) BC=00

B= Wind Speed (mph)
1 (150)
2 (130)
3 (110)

C = Pole Height (feet)
1 (80)
2 (100)
3 (120)
9 (Custom Height)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 19111 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-150 MPH, POLE 80' | EA | | 1/1/2010 | |
| 0715 19112 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-150 MPH, POLE 100' | EA | | 1/1/2010 | |
| 0715 19113 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-150 MPH, POLE 120' | EA | | 1/1/2010 | |
| 0715 19119 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-150 MPH, CUSTOM HEIGHT | EA | | 1/1/2010 | |
| 0715 19121 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-130 MPH, POLE 80' | EA | | 1/1/2010 | |
| 0715 19122 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-130 MPH, POLE 100' | EA | | 1/1/2010 | |
| 0715 19123 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-130 MPH, POLE 120' | EA | | 1/1/2010 | |
| 0715 19129 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-130 MPH, CUSTOM HEIGHT | EA | | 1/1/2010 | |
| 0715 19132 | HIGH MAST LIGHT POLE, F&I, WIND SPEED-110 MPH, POLE 100' | EA | | 1/1/2010 | |
| 0715 19133 | HIGH MAST LIGHT POLE COMPLETE, F&I, WIND SPEED-110 MPH, POLE HEIGHT 120' | EA | | 1/1/2010 | |
| 0715 19300 | HIGH MAST LIGHT POLE, INSTALL | EA | | 1/1/2010 | |
| 0715 19600 | HIGH MAST LIGHT POLE, REMOVE | EA | | 1/1/2010 | |

## 715- 20- A LIGHTING- SCHEDULED CLEANING

**Unit** LU **Accuracy** Luminaire **PlanQuantity?** no

**Notes**

**Details** This is a maintenance operation. Coordinate the use of this item with the District Maintenance Office. Verify correct funding for this pay item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 20- A** **LIGHTING- SCHEDULED CLEANING** **LU**

A =
1 (Pole Mounted <50')
2 (Underdeck)
3 (Sign Luminaire)
4 (High Mast)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 20 4 | LIGHTING - SCHEDULED CLEANING, HIGH MAST | LU | | 1/1/2010 | |

## 715- 26- A QUICK DISCONNECT PLUG

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use with Maintenance Contracts Only.
When needed for new roadway or high mast lighting, include with light pole complete or related item(s).

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 26- A** **QUICK DISCONNECT PLUG** **EA**

A =MAINTENANCE CONTRACTS ONLY
1 (Switch Boxing - For Sign Structure)
2 (Plug Pole Base - High Mast)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 26 1 | QUICK DISCONNECT PLUG, SWITCH BOXING FOR SIGN | EA | | 1/1/2010 | |
| 0715 26 2 | QUICK DISCONNECT PLUG,PLUG POLE BASE, HIGH MAST | EA | | 1/1/2010 | |

## 715- 30- AA GROUP RELAMPING (LIGHTING)

**Unit** LU **Accuracy** Luminaire **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 30- AA** **GROUP RELAMPING (LIGHTING)** **LU**

AA =
1 (Mercury Vapor)
2 (High Pressure Sodium)
3 (Metal Halide)
4 (Bridge Mounted HPS)
5 (High Mast/HPS)
6
7
8 (Low Pressure Sodium)
9 (Fluorescent)
10 (Incandescent)
11 (State Furnished Lamps)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 30 2 | LIGHTING- GROUP RELAMPING, HIGH PRESSURE SODIUM | LU | | 1/1/2010 | |
| 0715 30 5 | GROUP RELAMPING, LIGHTING, HIGH MAST/HPS | LU | | 1/1/2010 | |

## 715- 31- AA LIGHTING - ROUTINE MAINTENANCE

**Unit** LU **Accuracy** Luminaire **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 31- AA** **LIGHTING - ROUTINE MAINTENANCE** **LU**

AA =
1 (Shoulder, Single Arm)
2 (Shoulder, Double Arm)
3 (Median, Single Arm, Wall Mounted.)
4 (Median, Double Arm, Wall Mounted.)
5 (Bridge Mounted)
6 (Underdeck)
7 (Load Center)
8 (High Mast Pole)
9 (Overhead Sign Assembly)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 31 6 | ROUTINE LIGHTING MAINTAINANCE, UNDERDECK | LU | T | 1/1/2010 | |

## 715- 36- AB LIGHT POLE FRANGIBLE BASE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Includes the frangible base, attachments, bolts and washers as per the plans and standard indexes.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards** Index No. 17501
**Specifications**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 36- AB** **LIGHT POLE FRANGIBLE BASE** **EA**

A = Operation
1 (Furnish & Install)
4 (Remove)
5 (Leveling In-Place Pole)
6 (Replace)

B = Type
1 (Shoe Base)
2 (Transformer Base)
3 (Frangible Insert)
4 (Door Assembly)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 36 12 | LIGHT POLE, FRANGIBLE BASE, F&I, TRANSFORMER BASE | EA | | 1/1/2010 | |
| 0715 36 14 | LIGHT POLE, FRANGIBLE BASE, F&I, DOOR ASSEMBLY | EA | | 1/1/2010 | |
| 0715 36 42 | LIGHT POLE, FRANGIBLE BASE, REMOVE, TRANSFORMER BASE | EA | | 1/1/2010 | |
| 0715 36 62 | LIGHT POLE, FRANGIBLE BASE, REPLACE, TRANSFORMER BASE | EA | | 1/1/2010 | |

**715- 37- A** **LIGHT POLE PHOTO ELECTRIC CONTROL ASSEMBLY**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Includes the photo electric control, transformer, conduit and conductors as per the plans and standard indexes.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS for Item 715- 37- 1

**Other Standards** Index No. 17504

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 37- A** **LIGHT POLE PHOTO ELECTRIC CONTROL ASSEMBLY EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Relocate)

**Notes** Inactive

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 37 1 | PHOTO ELECTRIC CONTROL ASSEMBLY, F&I | EA | | 1/1/2010 | |

## 715- 50- LIGHTING- INSIDE BOX GIRDER

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details** Intended for lighting system within box girder structures. Coordinate the use of this item with the Mechanical/Electrical Section of the State Structures Office. All work must be detailed in the plans/specifications, including a tabulation of materials. Refer to Index and Instructions for Structues Related Design Standards.

LS System: Includes all work & materials tabulated in the plans, including conduit and wiring (within the box girder), power distribution, switches, light fixtures, etc.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqlt: Lighting Tabulation of Quantity Sheet, or<br>SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 21240

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715- 50-** **LIGHTING- INSIDE BOX GIRDER** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715 50 | LIGHTING, INSIDE BOX GIRDER | LS | T | 1/1/2010 | |

## 715-500- A LIGHT POLE CABLE DISTRIBUTION SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Includes the surge protector, fuse holders with fuses, waterproof connectors and waterproof wiring connection to the luminaire. Refer to Section 992 of the Specifications for details.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | tabqlt: Lighting Tabulation of Quantity Sheet, or<br>SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |

**References**

**PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715-500- A** **LIGHT POLE CABLE DISTRIBUTION SYSTEM** **EA**

A = Type
1 = (Conventional)
2 = (High Mast)
3 = (Wall Mounted)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715500 1 | POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL | EA | | 1/1/2010 | |
| 0715500 2 | POLE CABLE DISTRIBUTION SYSTEM, HIGH MAST | EA | | 1/1/2010 | |
| 0715500 3 | POLE CABLE DISTRIBUTION SYSTEM, WALL MOUNT | EA | | 1/1/2010 | |

## 715-5AB-CDD LIGHT POLE COMPLETE, SPECIAL DESIGN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Effective 7/2010 letting, Median Barrier Mounted Aluminum Poles (single and double arm) are included on design standard.**
**Effective 7/2010 letting, Internal Vibration Damper required for light poles. Refer to 715-1 of specifications.**

**Details**

Used for Specially Designed Poles, including decorative or non-standard aluminum . Requires shop drawings.
Includes the pole, internal vibration damping device, bracket arm, luminaire with lamp, anchor bolts with lock nuts and washers, frangible base and foundation.

For special foundations, select pay item based on pole type; detail foundation in the plans. For standard aluminum poles, use item 715-4-ABC.

FURNISH (A=2): Do not furnish additional light fixtures 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.

Effective 7/2010 letting:
For Median Barrier Mounted Aluminum, refer to Index 17515. Do not use "Special Design" pay item for standard poles included on design standard; use pay item 715-4- for Light Pole Complete, for all standard poles.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqlt: Lighting Tabulation of Quantity Sheet, or
SHPoleData 1 or SHPoleData 2: Light Pole Data (Sheet 1 or Sheet 2)

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards** Index No. 17500, 17501, 17503
(Index No. 17503 valid through July 2009)

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0400 Lighting

**Struct.** **715-5AB-CDD** **LIGHT POLE COMPLETE, SPECIAL DESIGN** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish) approvals needed; see details above
3 (Install)
4 (Relocate) B-CDD = 0-000
5 (Remove) B-CDD = 0-000
6 (Repair & Reinstall) B-CDD = 0-000
7 (Furnish & Install With Internal Vibration Damper) *valid through 6-30-10

B = No. Arms & Location
1 (Single Arm Shoulder Mount)
2 (Double Arm Shoulder Mount)
3 (Single Arm Wall Mount) Do not used for designs shown on Index 17515.
4 (Double Arm Wall Mount) Effective 7/2010, do NOT use for poles covered by Index 17515, Median Barrier Wall Mount.
5 (Single Arm Bridge Mount)
6 (Pole Top Mount)
7 (Double Arm Bridge Mount)
8 (Double Arm, Pole Top Mount)

C = Material Type
1 (Aluminum) non-standard designs
2 (Galvanized Steel)
3 (Concrete)
4 (Fiberglass)
5 (Wood)
6 (Cast Iron)

DD = Mounting Height (Open In Five Foot Increments

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0715511115 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 15' | EA | T | 1/1/2010 | |
| 0715511120 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 20' | EA | T | 1/1/2010 | |
| 0715511125 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 25' | EA | T | 1/1/2010 | |
| 0715511130 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 30' | EA | T | 1/1/2010 | |
| 0715511135 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 35' | EA | T | 1/1/2010 | |
| 0715511140 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 40' | EA | T | 1/1/2010 | |
| 0715511145 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 45' | EA | T | 1/1/2010 | |
| 0715511150 | LIGHT POLE COMPLETE SPECIAL DESIGN , F&I, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 50' | EA | T | 1/1/2010 | |
| 0715511230 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, GALVANIZED STEEL, 30' | EA | T | 1/1/2010 | |
| 0715511240 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, GALVANIZED STEEL, 40' | EA | T | 1/1/2010 | |
| 0715511245 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, GALVANIZED STEEL, 45' | EA | T | 1/1/2010 | |
| 0715511250 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, GALVANIZED STEEL, 50' | EA | T | 1/1/2010 | |
| 0715511315 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, CONCRETE, 15' | EA | T | 1/1/2010 | |
| 0715511330 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, CONCRETE, 30' | EA | T | 1/1/2010 | |
| 0715511335 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, CONCRETE, 35' | EA | T | 1/1/2010 | |
| 0715511340 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, CONCRETE, 40' | EA | T | 1/1/2010 | |
| 0715511350 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, CONCRETE, 50' | EA | T | 1/1/2010 | |

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|---|---|---|---|---|---|
| 0715511540 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, WOOD, 40' | EA | T | 1/1/2010 | |
| 0715511550 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM SHOULDER MOUNT, WOOD, 50' | EA | T | 1/1/2010 | |
| 0715512115 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, ALUMINUM, 15' | EA | T | 1/1/2010 | |
| 0715512130 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, ALUMINUM, 30' | EA | T | 1/1/2010 | |
| 0715512140 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, ALUMINUM, 40' | EA | T | 1/1/2010 | 12/31/2013 |
| 0715512145 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, ALUMINUM, 45' | EA | T | 1/1/2010 | |
| 0715512150 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, ALUMINUM, 50' | EA | T | 1/1/2010 | |
| 0715512320 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, CONCRETE, 20' | EA | T | 1/1/2010 | |
| 0715512340 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, CONCRETE, 40' | EA | T | 1/1/2010 | |
| 0715512940 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM SHOULDER MOUNT, CONCRETE, 40' | EA | T | 1/1/2010 | |
| 0715513115 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, ALUMINUM, 15' | EA | T | 1/1/2010 | |
| 0715513125 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, ALUMINUM, 25' | EA | T | 1/1/2010 | |
| 0715513130 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, ALUMINUM, 30' | EA | T | 1/1/2010 | |
| 0715513135 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, ALUMINUM, 35' | EA | T | 1/1/2010 | |
| 0715513140 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, ALUMINUM, 40' | EA | T | 1/1/2010 | |
| 0715513145 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, ALUMINUM, 45' | EA | T | 1/1/2010 | |
| 0715513150 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, ALUMINUM, 50' | EA | T | 1/1/2010 | |

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|---|---|---|---|---|
| 0715513215 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, GALVANIZED STEEL, 15' | EA | T | 1/1/2010 |
| 0715513240 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, GALVANIZED STEEL, 40' | EA | T | 1/1/2010 |
| 0715513245 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, GALVANIZED STEEL, 45' | EA | T | 1/1/2010 |
| 0715513250 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM WALL MOUNT, GALVANIZED STEEL, 50' | EA | T | 1/1/2010 |
| 0715514115 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM WALL MOUNT, ALUMINUM, 15' | EA | T | 1/1/2010 |
| 0715514120 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM WALL MOUNT, ALUMINUM, 20' | EA | T | 1/1/2010 |
| 0715514125 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM WALL MOUNT, ALUMINUM, 25' | EA | T | 1/1/2010 |
| 0715514130 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM WALL MOUNT, ALUMINUM, 30' | EA | T | 1/1/2010 |
| 0715514135 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM WALL MOUNT, ALUMINUM, 35' | EA | T | 1/1/2010 |
| 0715514145 | LIGHT POLE COMP- SPECIAL DESIGN, F&I, DOUBLE ARM WALL MOUNT, ALUMINUM, 45' | EA | T | 1/1/2010 |
| 0715514150 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM WALL MOUNT, ALUMINUM, 50' | EA | T | 1/1/2010 |
| 0715515125 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM BRIDGE MOUNT- ALUMINUM, 25' | EA | T | 1/1/2010 |
| 0715515130 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SIGLE ARM BRIDGE MOUNT- ALUMINUM, 30' | EA | T | 1/1/2010 |
| 0715515135 | LIGHT POLE COMPLETE- SEPCIAL DESIGN, F&I, SINGLE ARM BRIDGE MOUNT- ALUMINUM, 35' | EA | T | 1/1/2010 |
| 0715515140 | LIGHT POLE COMPLETE- SEPCIAL DESIGN, F&I, SINGLE ARM BRIDGE MOUNT, NON-STD ALUMINUM, 40' | EA | T | 1/1/2010 |
| 0715515145 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM BRIDGE MOUNT- ALUMINUM, 45' | EA | T | 1/1/2010 |
| 0715515150 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM BRIDGE MOUNT- ALUMINUM, 50' | EA | T | 1/1/2010 |

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|---|---|---|---|---|
| 0715515240 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM BRIDGE MOUNT-GALVANIZED STEEL, 40' | EA | T | 1/1/2010 |
| 0715515250 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, SINGLE ARM BRIDGE MOUNT-GALVANIZED STEEL, 50' | EA | T | 1/1/2010 |
| 0715516115 | LIGHT POLE COMPLETE-SPECIAL DESIGN, F&I, POLE TOP MOUNT, ALUMINUM, 15' | EA | T | 1/1/2010 |
| 0715516120 | LIGHT POLE COMPLETE-SPECIAL DESIGN, F&I, POLE TOP MOUNT, ALUMINUM, 20' | EA | T | 1/1/2010 |
| 0715516125 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, POLE TOP MOUNT-ALUMINUM, 25' | EA | T | 1/1/2010 |
| 0715516130 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, POLE TOP MOUNT-ALUMINUM, 30' | EA | T | 1/1/2010 |
| 0715516135 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, POLE TOP MOUNT-ALUMINUM, 35' | EA | T | 1/1/2010 |
| 0715516140 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, POLE TOP MNT-ALUMINUM, 40' | EA | T | 1/1/2010 |
| 0715516145 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, POLE TOP MOUNT, ALUMINUM, 45' | EA | T | 1/1/2010 |
| 0715516150 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, POLE TOP MOUNT, ALUMINUM, 50' | EA | T | 1/1/2010 |
| 0715516210 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, POLE TOP MNT-GALVANIZED STEEL, 10' | EA | T | 1/1/2010 |
| 0715516320 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I ,POLE TOP MOUNT, CONCRETE, 20' | EA | T | 1/1/2010 |
| 0715517110 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM BRIDGE MOUNT, ALUMINUM, 10' | EA | T | 1/1/2010 |
| 0715517125 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM BRIDGE MOUNT, ALUMINUM, 25' | EA | T | 1/1/2010 |
| 0715517140 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM BRIDGE MOUNT, ALUMINUM, 40' | EA | T | 1/1/2010 |
| 0715517145 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM BRIDGE MOUNT, ALUMINUM, 45' | EA | T | 1/1/2010 |
| 0715518120 | LIGHT POLE COMP- SPECIAL DESIGN, F&I, DOUBLE ARM, POLE TOP MOUNT, ALUMINUM, 20' | EA | T | 1/1/2010 |
| 0715518130 | LIGHT POLE COMP- SPECIAL DESIGN, F&I, DOUBLE ARM, POLE TOP MOUNT, ALUMINUM, 30' | EA | T | 1/1/2010 |
| 0715518140 | LIGHT POLE COMP- SPECIAL DESIGN, F&I, DOUBLE ARM, POLE TOP MOUNT, ALUMINUM, 40' | EA | T | 1/1/2010 |
| 0715518145 | LIGHT POLE COMPLETE- SPECIAL DESIGN, F&I, DOUBLE ARM, POLE TOP MOUNT, ALUMINUM, 45' | EA | T | 1/1/2010 |

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|---|---|---|---|---|---|
| 0715521135 | LIGHT POLE COMPLETE- SPECIAL DESIGN, FURNISH, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 35' | EA | T | 1/1/2010 | |
| 0715521140 | LIGHT POLE COMPLETE- SPECIAL DESIGN, FURNISH, SINGLE ARM SHOULDER MOUNT, ALUMINUM, 40' | EA | T | 1/1/2010 | 12/31/2014 |
| 0715540000 | LIGHT POLE COMPLETE- SPECIAL DESIGN, RELOCATE | EA | T | 1/1/2010 | |
| 0715550000 | LIGHT POLE COMPLETE- SPECIAL DESIGN, REMOVE | EA | T | 1/1/2010 | |
| 0715560000 | LIGHT POLE COMPLETE- SPECIAL DESIGN, REPAIR & REINSTALL | EA | T | 1/1/2010 | |

## 721- 70- AB PASSENGER SHELTER- ALUMINUM, PREFABRICATED

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **721- 70- AB** **PASSENGER SHELTER- ALUMINUM, PREFABRICATED EA**

A =
1 (Aluminum)

B =
1 (Pre-Fabricated)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 721- 74- A TRASH RECEPTACLE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **721- 74- A** **TRASH RECEPTACLE** **EA**

A = Type
1 (Pre-Fabricated)
2 (Precast)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0721 74 1 | TRASH RECEPTACLE, PRE-FABRICATED | EA | T | 1/1/2010 | |

## 721- 75- A BENCHES

**Unit** EA **Accuracy** Each **PlanQuantity?** yes

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **721- 75- A** **BENCHES** **EA**

A = Type
1 (Pre-Fabricated)
2 (Precast)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0721 75 1 | BENCHES, PRE-FABRICATED | EA | T | 1/1/2010 | |

## 721- 77- BICYCLE PARKING RACK

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **721- 77-** **BICYCLE PARKING RACK** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0721 77 | BICYCLE PARKING RACK | EA | T | 1/1/2010 | |

## 721- 80- PEDESTRIAN PLAZA

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

May include pedestrian banners, drinking fountains, kiosk, and other items, as detailed in the plans. Tabulation summary required on all projects.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **721- 80-** **PEDESTRIAN PLAZA** **LS/LS**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| 730- 76-ABB | STEEL CASING, OPEN TRENCH |
|---|---|

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

a=1, 4, 5 valid for open cut trench applications only. For Jack & Bore, Directional Bore, and/or vibratory plowing, refer to Items 555, 556, and/or 557.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **730- 76-ABB** **STEEL CASING, OPEN TRENCH** **LF**

A = Operation
1 (Furnish & Install)

BB = Size
01 ( 2")
02 ( 3")
03 ( 4")
04 ( 6")
05 ( 8")
06 (10")
07 (12")
08 (14")
09 (16")
10 (18")
11 (20")
12 (22")
13 (24")
14 (26")

15 (28")
16 (30")
17 (32")
18 (34")
19 (36")
20 (38")
21 (40")
22 (42")
23 (48")
24 (54")
25 (60")
26 (66")
27 (64")
28 (78")
29 (84")
30 (72")
31 (90")
32 (108")

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0730 76101 | STEEL CASING, OPEN TRENCH, F&I, 2" | LF | | 1/1/2010 | |
| 0730 76103 | STEEL CASING, OPEN TRENCH, F&I, 4" | LF | | 1/1/2010 | |
| 0730 76104 | STEEL CASING, OPEN TRENCH, F&I, 6" | LF | | 1/1/2010 | |
| 0730 76105 | STEEL CASING, OPEN TRENCH, F&I, 8" | LF | | 1/1/2010 | |
| 0730 76107 | STEEL CASING, OPEN TRENCH, F&I, 12" | LF | | 1/1/2010 | |
| 0730 76108 | STEEL CASING, OPEN TRENCH, F&I, 14" | LF | | 1/1/2010 | |
| 0730 76109 | STEEL CASING, OPEN TRENCH, F&I, 16" | LF | | 1/1/2010 | |
| 0730 76110 | STEEL CASING, OPEN TRENCH, F&I, 18" | LF | | 1/1/2010 | |
| 0730 76111 | STEEL CASING, OPEN TRENCH, F&I, 20" | LF | | 1/1/2010 | |
| 0730 76113 | STEEL CASING, OPEN TRENCH, F&I, 24" | LF | | 1/1/2010 | |
| 0730 76115 | STEEL CASING, OPEN TRENCH, F&I, 28" | LF | | 1/1/2010 | |
| 0730 76116 | STEEL CASING, OPEN TRENCH, F&I, 30" | LF | | 1/1/2010 | |
| 0730 76118 | STEEL CASING, OPEN TRENCH, F&I, 34" | LF | | 1/1/2010 | |
| 0730 76119 | STEEL CASING, OPEN TRENCH, F&I, 36" | LF | | 1/1/2010 | |
| 0730 76121 | STEEL CASING, OPEN TRENCH, F&I, 40" | LF | | 1/1/2010 | |
| 0730 76122 | STEEL CASING, OPEN TRENCH, F&I, 42" | LF | | 1/1/2010 | |
| 0730 76123 | STEEL CASING, OPEN TRENCH, F&I, 48" | LF | | 1/1/2010 | |
| 0730 76124 | STEEL CASING, OPEN TRENCH, F&I, 54" | LF | | 1/1/2010 | |
| 0730 76126 | STEEL CASING, OPEN TRENCH, F&I, 66" | LF | | 1/1/2010 | |
| 0730 76130 | STEEL CASING, OPEN TRENCH, F&I, 72" | LF | | 1/1/2010 | |

## 730- 83- AB IRRIGATION WELL

**Unit** PW; EA; LF; M1 **Accuracy** Per Well; Each; Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** Irrigation well for roadway, architectural, or landscaping applications. Designer should

determine if permits are required by local and/or state agencies. For drainage deep wells, see 444- pay items and index 288.

When used for landscape applications, load pay item in landscape category. For Roadway applications, load item in roadway category.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

Final Measure:
For Per Each/Well Items: Final tabulation of quantities must be recorded on proper form in computation book by location.
For Length Measurements: Record final measurements on proper form in computation book or field book. When measurements have been recorded in the field book, transfer final quantities to computation book.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | See Details Above<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **730- 83- AB** **IRRIGATION WELL** **PW; EA; LF;**

A= Depth
blank (up to 250') per well
1 (250' and greater) per LF

A =
4 (4" Casing)
6 (6" Casing)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0730 83 4 | WELL, TO 250' DEPTH, 4" CASING | PW | T | 1/1/2010 | |
| 0730 83 6 | WELL, TO 250' DEPTH, 6" CASING | PW | T | 1/1/2010 | |

## 730- 88- PUMPING SYSTEM- IRRIGATION WELL

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Irrigation well for roadway, architectural, or landscaping applications. Designer should determine if permits are required by local and/or state agencies. For drainage deep wells, see 444- pay items and index 288.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **730- 88-** **PUMPING SYSTEM- IRRIGATION WELL** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0730 88 | PUMPING SYSTEM | EA | T | 1/1/2010 | |

## 735- 74- AA TOLL PLAZA

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

Tabulation summary required on all projects. See 735-88-AA for modifications to existing toll plazas.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **735- 74- AA** **TOLL PLAZA** **LS/LS**

AA =
blank (single location)
1 (Location 1)
2 (Location 2)
3 (Location 3)
4 (Location 4)
5 (Location 5)
6 (Location 6)
7 (Location 7)
8 (Location 8)
9 (Location 9)
10 (Location 10)
11 (Location 11)
12 (Location 12)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0735 74 | TOLL PLAZA, SINGLE LOCATION | LS | T | 1/1/2010 | |
| 0735 74 1 | TOLL PLAZA, LOCATION 1 | LS | T | 1/1/2010 | |
| 0735 74 2 | TOLL PLAZA, LOCATION 2 | LS | T | 1/1/2010 | |
| 0735 74 3 | TOLL PLAZA, LOCATION 3 | LS | T | 1/1/2010 | |
| 0735 74 4 | TOLL PLAZA, LOCATION 4 | LS | T | 1/1/2010 | |
| 0735 74 5 | TOLL PLAZA, LOCATION 5 | LS | T | 1/1/2010 | |
| 0735 74 6 | TOLL PLAZA, LOCATION 6 | LS | T | 1/1/2010 | |
| 0735 74 7 | TOLL PLAZA, LOCATION 7 | LS | T | 1/1/2010 | |
| 0735 74 8 | TOLL PLAZA, LOCATION 8 | LS | T | 1/1/2010 | |
| 0735 74 9 | TOLL PLAZA, LOCATION 9 | LS | T | 1/1/2010 | |

## 735- 79- SERVICE PLAZA- SEWAGE AND WATER MODIFICATIONS

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqrd: Roadway Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **735- 79-** **SERVICE PLAZA- SEWAGE AND WATER MODIFICATIONS** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0735 79 | SERVICE PLAZA- SEWAGE AND WATER MODIFICATIONS | LS | T | 1/1/2010 | |

## 735- 80- SERVICE PLAZA RENOVATION

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqrd: Roadway Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **735- 80-** **SERVICE PLAZA RENOVATION** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 735- 81- SERVICE/TOLL PLAZA- UNDERGROUND STRUCTURE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Valid for Turnpike/Service Plaza use only.
Detail the size, depth, and any material requirements in the plans or specifications. If structure is to be similar to drainage structure, consider reference to Section 425 of the specifications.
For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **735- 81-** **SERVICE/TOLL PLAZA- UNDERGROUND STRUCTURE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 735- 82- A TOLL PLAZA CANOPY

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** yes

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **735- 82- A** **TOLL PLAZA CANOPY** **SF**

A =
1 (Concrete)
2 (Aluminum)
3 (Steel)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 735- 84- A TOLL PLAZA ISLAND

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **735- 84- A** **TOLL PLAZA ISLAND** **EA**

A =
1 (New)
2 (Modify)
3 (Remove)
4 (New With Stairwell)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0735 84 3 | TOLL PLAZA ISLAND, REMOVE | EA | T | 1/1/2010 | |

## 735- 88- AA TOLL PLAZA MODIFY EXISTING

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** For use on Turnpike and other toll roads. Tabulation summary required on all projects. For NEW plaza construction, see item 735-74-AA.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **735- 88- AA** **TOLL PLAZA MODIFY EXISTING** **LS/LS**

AA =
blank (single location)
1 (Location 1)
2 (Location 2)
3 (Location 3)
4 (Location 4)
5 (Location 5)
6 (Location 6)
7 (Location 7)
8 (Location 8)
9 (Location 9)
10 (Location 10)
11 (Location 11)
12 (Location 12)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0735 88 | TOLL PLAZA MODIFY EXISTING | LS | T | 1/1/2010 | |
| 0735 88 1 | TOLL PLAZA MODIFY EXISTING, LOCATION 1 | LS | T | 1/1/2010 | |
| 0735 88 2 | TOLL PLAZA MODIFY EXISTING, LOCATION 2 | LS | T | 1/1/2010 | |

## 735- 89- REST AREA/SERVICE PLAZA- AUTOMATIC WINDSHIELD WASHER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **735- 89-** **REST AREA/SERVICE PLAZA- AUTOMATIC WINDSHIELD WASHER** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 737- 70- A UTILITY LOCATE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This item is intended to be used for verification of utility locations designated in the plans, when necessary to specifically identify a location. This item is not to be used for incidental work covered by 7-11 of the specifications.
Refer to the Utility Accommodation Manual and PPM for additional guidance.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter** Vol 1, Ch 5

**Trns·port** Normally requires SHOP DRAWINGS

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **737- 70- A** **UTILITY LOCATE** **EA**

A =
1 (Underground)
2 (Under Pavement)
3 (Electronic - Horizontal)
4 (Underwater)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0737 70 1 | UTILITY LOCATE, UNDERGROUND | EA | T | 1/1/2010 | |
| 0737 70 2 | UTILITY LOCATE, UNDER PAVEMENT | EA | T | 1/1/2010 | |

## 737- 71- A ELECTRONIC UTILITY DESIGNATE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This item is intended to be used for verification/designating/marking of utility locations designated in the plans. Marker requirements to be provided by designer for specifications. Pay item not intended for searching unknown conditions. This item is not to be used for incidental work covered by 7-11 of the specifications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**
**Trns·port** Normally requires SHOP DRAWINGS
**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **737- 71- A** **ELECTRONIC UTILITY DESIGNATE** **LF**

A =
1 (Underground)
2 (Under Pavement)
3 (Electronic - Horizontal)
4 (Underwater)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 740- 71-ABC WALL

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **740- 71-ABC** **WALL** **LF**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Removal)
5 (Rehab) LS, BC=00

B = Material
1 (Drywall)
2 (Panel Wall)
3 (Block Wall)

4 (Other)

C = Height
1 (8')
2 (10')
3 (12')
4 (Other)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0740 71500 | WALL, REHABILITATION | LS | T | 1/1/2010 | |

## 741- 70-ABC TRAFFIC MONITORING SITE, VEHICLE SENSOR- CLASS II

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** Refer to Specifications for use and application.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **741- 70-ABC** **TRAFFIC MONITORING SITE, VEHICLE SENSOR- CLASS II** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Modify)

B = Vehicle Sensor Type
1 (Type I)
2 (Type II)

C = Sensor Length
1 (Half Lane Width)
2 (Full Lane Width)
3 (Non-Intrusive)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0741 70111 | TMS VEHICLE SENSOR, CLASS II, F&I, TYP 1, 1/2 LN | EA | | 1/1/2010 | |
| 0741 70112 | TMS VEHICLE SENSOR, CLASS II, F&I, TYP 1, FULL LANE WIDTH | EA | | 1/1/2010 | |
| 0741 70121 | TMS VEHICLE SENSOR, CLASS 2, F&I, TYP II, HALF LANE WIDTH | EA | | 1/1/2010 | |
| 0741 70123 | TMS VEHICLE SENSOR, CLASS 2, F&I, TYPE II, NON INTRUSIVE | EA | | 1/1/2010 | |

## 742- 1- A TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS UNIT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Effective January 2010 letting; replaces 742-70 item.**

**Details** Valid for use with Traffic Monitoring Systems only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **742- 1- A** **TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS UNIT** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0742 1 1 | TMS WEIGH- IN- MOTION, ELECTRONICS UNIT,F&I | EA | T | 1/1/2010 | |

## 742- 2- AB TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS SENSORS

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Effective January 2010 letting; replaces 742-70 item.**

**Details** Valid for use with Traffic Monitoring Systems only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 or oth Roadway or other- see details

**Struct.** **742- 2- AB** **TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS SENSORS** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)

B = Weight Sensor Type
1 (Bending Plate)
2 (Piezoelectric/ Quartz Piezoelectric)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0742 2 11 | TMS WEIGH- IN- MOTION, ELECTRONICS SENSORS,F&I BENDING PLATE | EA | T | 1/1/2010 | |
| 0742 2 12 | TMS WEIGH- IN- MOTION, ELECTRONICS SENSORS,F&I PIZOELECTRIC/QUARTZ PEIZOELECTRIC | EA | T | 1/1/2010 | |
| 0742 2 22 | TMS WEIGH- IN- MOTION, ELECTRONICS SENSORS, FURNISH PIZOELECTRIC/QUARTZ PEIZOELECTRIC | EA | T | 1/1/2010 | |

## 742- 70- AB TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS ASSEMBLY

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes** **Valid through December 31, 2009. Replaced by 742-1 Unit and 742-2 Sensors.**

**Details** Valid for use with Traffic Monitoring Systems only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **742- 70- AB** **TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS ASSEMBLY** **AS**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)

B = Weight Sensor Type
1 (Bending Plate)
2 (Piezoelectric)
3 (Capacitance)

4 (Combined Types)
5 (Other)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

## 743- 70- AB TRAFFIC MONITORING SITE, VEHICLE SPEED/CLASSIFICATION UNIT

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** Refer to Specifications for use and application.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **743- 70- AB** **TRAFFIC MONITORING SITE, VEHICLE SPEED/CLASSIFICATION UNIT** **AS**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Modify)

B = Assembly Component
1 (Electronics Unit With Equipment Cable)
2 (Electronics Unit Only)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0743 70 11 | TMS VEHICLE SPEED/CLASS. UNIT, F&I, ELECTRONICS UNIT WITH EQUIPMENT CABLE | AS | | 1/1/2010 | |

## 744- 70- AB TRAFFIC MONITORING SITE, SOLAR POWER UNIT

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** Refer to Specifications for use and application.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **744- 70- AB** **TRAFFIC MONITORING SITE, SOLAR POWER UNIT** **AS**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)

B = Mounting
1 (New Pole)
2 (Existing Pole)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0744 70 11 | TMS SOLAR POWER UNIT, F&I, NEW POLE | EA | | 1/1/2010 | |
| 0744 70 12 | TMS SOLAR POWER UNIT, F&I, EXISTING POLE | EA | | 1/1/2010 | |

**745- 70- AB** **TRAFFIC MONITORING SITE, INDUCTIVE LOOP ASSEMBLY**

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** Refer to Specifications for use and application.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **745- 70- AB** **TRAFFIC MONITORING SITE, INDUCTIVE LOOP ASSEMBLY** **AS**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)

B = Number Of Loops Per Lane
1 (One)
2 (Two)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0745 70 11 | TMS INDUCTIVE LOOP ASSEMBLY, F&I, 1 LOOP / LANE | AS | | 1/1/2010 | |
| 0745 70 12 | TMS INDUCTIVE LOOP ASSEM, F&I, 2 LOOPS / LANE | AS | | 1/1/2010 | |

## 746- 7A-BCD TRAFFIC MONITORING SITE, CABINET

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Refer to Specifications for use and application.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **746- 7A-BCD** **TRAFFIC MONITORING SITE, CABINET** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BCD=blank
4 (Modify) BCD=blank
5 (Relocate) BCD=blank

B = Size
1 (Type III)
2 (Type IV)
3 (Type V)

C = Mounting
1 (Base)
2 (Pole)
3 (Pedestal)

D = Backplane
1 (One)
2 (Two)
3 (None)

**Notes** Existing Specs apply for A=1-3; Plan Detail and/or Tech Spec Required for A=4 or 5

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0746 71111 | TMS CABINET, F&I, TYPE III, BASE MOUNT, 1 BACKPLANE | EA | | 1/1/2010 | |
| 0746 71112 | TMS CABINET, F&I, TYPE III, BASE MOUNT, 2 BACKPLANE | EA | | 1/1/2010 | |
| 0746 71122 | TRAFFIC MONITORING SYSTEM CABINET, F&I, TYPE III, POLE MOUNT, 2 BACKPLANE | EA | | 1/1/2010 | |
| 0746 71131 | TMS CABINET,F&I, TYPE III, PEDESTAL MNT, 1 BACKPLANE | EA | | 1/1/2010 | |
| 0746 71132 | TMS CABINET,F&I, TYPE III, PEDESTAL MNT, 2 BACKPLANE | EA | | 1/1/2010 | |
| 0746 71133 | TMS CABINET,F&I, TYPE V, PEDESTAL MOUNT, NONE | EA | | 1/1/2010 | |
| 0746 71211 | TMS CABINET, F&I, TYPE IV, BASE MOUNT, 1 BACKPLANE | EA | | 1/1/2010 | |
| 0746 71212 | TMS CABINET,F&I, TYPE IV, BASE MNT, 2 BACKPLANE | EA | | 1/1/2010 | |
| 0746 71221 | TRAFFIC MONITORING SYSTEM CABINET, F&I, TYPE IV, POLE MOUNT, 1 BACKPLANE | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0746 71222 | TMS CABINET,F&I, TYPE IV, POLE MOUNT, 2 BACKPLANE | EA | 1/1/2010 |
| 0746 71311 | TMS CABINET, F&I, TYPE V, BASE MOUNT, 1 BACKPLANE | EA | 1/1/2010 |
| 0746 71312 | TMS CABINET, F&I, TYPE V, BASE MOUNT, 2 BACKPLANE | EA | 1/1/2010 |
| 0746 74 | TMS CABINET, MODIFY | EA | 1/1/2010 |
| 0746 75 | TMS CABINET, RELOCATE | EA | 1/1/2010 |

## 747- 70- AB TRAFFIC MONITORING SITE, MODEM

**Unit** AS **Accuracy** Assembly **PlanQuantity?** no

**Notes**

**Details** Refer to Specifications for use and application.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **747- 70- AB** **TRAFFIC MONITORING SITE, MODEM** **AS**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Modify)

B = Item
1 (Modem)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0747 70 11 | TMS MODEM, F&I | EA | | 1/1/2010 | |
| 0747 70 31 | TMS MODEM, INSTALL | EA | | 1/1/2010 | |

## 750- 1- AB ARCHITECTURAL- BUILDING

**Unit** LS/SF; LS/M2 **Accuracy** Lump Sum (Square Foot); Lump Sum (Square Meter) **PlanQuantity?** no

**Notes**

**Details**

For all new/major rehab Architectural work. Includes all work (building, plumbing, electrical, water, HVAC, etc.) for a complete building. Tech Specs must detail all items, construction, and materials.
For limited incidental work, see 751 items.
Do not use for movable bridge structures; see 508 items and/or contact Movable Bridge Section. Do not use for Signing, Lighting, ITS, or Signalization.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **750- 1- AB** **ARCHITECTURAL- BUILDING** **LS/SF**

A= Operation
1 (New)
5 (Rehab)
6 (Remove)

B= Facility
1 (Rest Area)
2 (Welcome Center)
3 (Weigh Station)
4 (Maintenance Facility Building)
5 (Office)
6 (Parking Garage)
7 (Storage/Mechanical)
8 (Uncovered Storage)
9 (Other building)*
*Contact Architectural Section for approval

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0750 1 11 | ARCHITECTURAL, BUILDING, NEW, REST AREA | LS | T | 1/1/2010 | |
| 0750 1 13 | ARCHITECTURAL, BUILDING, NEW, WEIGH STATION | LS | T | 1/1/2010 | |
| 0750 1 17 | ARCHITECTURAL, BUILDING, NEW, STORAGE/MECHANICAL | LS | T | 1/1/2010 | |
| 0750 1 18 | ARCHITECTURAL, BUILDING, NEW, UNCOVERED STORAGE | LS | T | 1/1/2010 | |
| 0750 1 19 | ARCHITECTURAL, BUILDING, NEW, OTHER BUILDING | LS | T | 1/1/2010 | |
| 0750 1 53 | ARCHITECTURAL, BUILDING, REHAB, WEIGH STATION | LS | T | 1/1/2010 | |
| 0750 1 55 | ARCHITECTURAL, BUILDING, REHAB, OFFICE | LS | T | 1/1/2010 | |
| 0750 1 59 | ARCHITECTURAL, BUILDING, REHAB, OTHER BUILDING | LS | T | 1/1/2010 | |

## 751- 2- ARCHITECTURAL- ELECTRICAL/POWER

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

For use on Architectural projects only. Not to be used with 750-1 (New/Rehab building) item.
Includes all work, hardware (lighting fixtures, generator, etc.), and materials for a complete electrical system, as detailed in the plans and/or tech specs.
Do not use for Signing, Lighting, ITS, or Signalization.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct. 751- 2- ARCHITECTURAL- ELECTRICAL/POWER LS/LS**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0751 2 | ARCHITECTURAL - ELECTRICAL/POWER | LS | T | 1/1/2010 | |

## 751- 3- ARCHITECTURAL- TELEPHONE/COMMUNICATION

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

For use on Architectural projects only. Not to be used with 750-1 (New/Rehab building) item.
DO NOT USE FOR: Signing, Lighting, ITS, or Signalization.

Includes all work, hardware, and materials for a complete Telephone/Communication system, as detailed in the plans and/or tech specs. Communications may include cable and/or fiber optic connections necessary for a complete system.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 3-** **ARCHITECTURAL- TELEPHONE/COMMUNICATION** **LS/LS**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

## 751- 4- ARCHITECTURAL- WATER/SEWER INTERIOR

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

For use on Architectural projects only. Not to be used with 750-1 (New/Rehab building) item.
Includes all work, hardware (sinks, toilets, water fountains), and materials for a complete water/sewer system for the interior of a building, as detailed in the plans and/or tech specs.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 4-** **ARCHITECTURAL- WATER/SEWER INTERIOR** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 751- 5- ARCHITECTURAL- WATER, SANITARY SEWER/SEWAGE TREATMENT

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

For use on Architectural projects only. May be used with 750-1 (New/Rehab building) item for major items of work. For minor water/sewer work associated with building, include with 750-1 item.
Includes all work, hardware (lift station, treatment plant, etc.) for a complete water/sewer system for the exterior of a building, as detailed in the plans and/or tech specs.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 5-** **ARCHITECTURAL- WATER, SANITARY SEWER/SEWAGE TREATMENT** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0751 5 | ARCHITECTURAL-WATER, SANITARY SEWER/SEWAGE TREATMENT | LS | T | 1/1/2010 | |

## 751- 6- ARCHITECTURAL- HVAC

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details**

For use on Architectural projects only. Not to be used with 750-1 (New/Rehab building) item.
Includes all work, hardware (AC, ventilation, and/or heating units), and materials for a complete HVAC system, as detailed in the plans and/or tech specs.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 6-** **ARCHITECTURAL- HVAC** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 751- 10- ARCHITECTURAL- ASBESTOS ABATEMENT

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes** **Contact Architectural Section before opening, due to possible CARS contract.**

**Details** Check for possible CARS contract prior to using this item.
**********

For use on Architectural projects only. Not to be used with 750-1 (New/Rehab building) item.
Includes all work, hardware, and materials for Asbestos Abatement, as detailed in the plans and/or tech specs.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 10-** **ARCHITECTURAL- ASBESTOS ABATEMENT** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**751- 11- A** **ARCHITECTURAL- SPECIAL**

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes** **Contact State Structures Design Office and/or State Architectural Section prior to use in any contract**

**Details** For use on Structural/Architectural plans only.

This item is intended to cover Special Architectural elements not included with "Buildings". Structural/Architectural details must be included in the plans or specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 11- A** **ARCHITECTURAL- SPECIAL** **LS/LS**

A= Description
1 (Walls/Towers) LS/LS

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**751- 20- A** **ARCHITECTURAL- LIGHTNING PROTECTION SYSTEM**

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details** For use on Architectural projects only. Not to be used with 750-1 (New/Rehab building) item.
For movable bridge structures, refer to Section 508 items. For all other applications, lightning protection is incidental to the item being protected.
Do not use for Signing, Lighting, ITS, or Signalization.
**********
Includes all work, hardware, and materials for a complete lightning protection system, as detailed in the plans and/or tech specs.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqrd: Roadway Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 20- A** **ARCHITECTURAL- LIGHTNING PROTECTION SYSTEM** **LS/LS**

A= Type of System
1 (Point Discharge)
2 (Static Charge Dissipation)
3 (Surge Suppression)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0751 20 1 | ARCHITECTURAL -LIGHTNING PROTECTION SYSTEM, POINT OF DISCHARGE | LS | T | 1/1/2010 | |
| 0751 20 3 | ARCHITECTURAL -LIGHTNING PROTECTION SYSTEM, SURGE SUPPRESSION | LS | T | 1/1/2010 | |

## 751- 30- A ARCHITECTURAL- PICNIC PAVILION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**
For use on Architectural projects only.
Size (small/large) and details as shown on Design Standards.
Non-standard sizes must be approved by the Architectural Section, with a new pay item request.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
sumqrd: Roadway Summary of Quantities Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other Standards** Index No. 530

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **751- 30- A** **ARCHITECTURAL- PICNIC PAVILION** **EA**

A= Size, per index
1 (Small)
2 (Large)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0751 30 1 | ARCHITECTURAL, PICNIC PAVILION, SMALL | EA | T | 1/1/2010 | |

## 770- 75- A PRE-PASS SENSOR

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use at weigh/inspection stations only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **770- 75- A** **PRE-PASS SENSOR** **EA**

A= Location
1(Asphalt Embedded)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 770- 78- STATIC/WEIGH-IN-MOTION SCALE SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

The designer should details all requirements and components to be included in the system.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **770- 78-** **STATIC/WEIGH-IN-MOTION SCALE SYSTEM** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0770 78 | STATIC / WEIGH-IN-MOTION SCALE SYSTEM | EA | T | 1/1/2010 | |

## 770- 79- WEIGH STATION

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details**

The designer should detail all requirements and components to be included in the station.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port** Normally requires SHOP DRAWINGS

**Other Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **770- 79-** **WEIGH STATION** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0770 79 | WEIGH STATION | LS | T | 1/1/2010 | |

## 775- 70- SCALE PIT STRUCTURES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **775- 70-** **SCALE PIT STRUCTURES** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 775- 72- SCALE FOUNDATION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0800 Architectural

**Struct.** **775- 72-** **SCALE FOUNDATION** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| 780- 1- AB | ITS ELECTRICAL POWER |
|---|---|

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes**

**Details** For use in providing electrical power service to ITS devices in the field. Installations of service assemblies can be either for overhead or underground service, in accordance with the details in the plans, or in Index 17736 of the Design Standards. A service assembly may include a weather head, conduit, service wire, a meter base, service disconnect, and a transient protection device.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqit: ITS Tabulation Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
**PPM Chapter** Vol 1, Chapter 7
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **780- 1- AB** **ITS ELECTRICAL POWER** **Mixed**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust & Modify)
6 (Remove and Dispose- Contractor takes ownership)

B= Type
1 (Service) AS
2 (Service Wire) LF
3 (Service Disconnect) EA

**Notes** Note: Accuracy for LF items is per Linear Foot.

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0780 1 11 | ITS ELECTRICAL POWER, F&I, SERVICE | AS | | 1/1/2010 | |
| 0780 1 12 | ITS ELECTRICAL POWER, F&I, SERVICE WIRE | LF | | 1/1/2010 | |
| 0780 1 13 | ITS ELECTRICAL POWER, F&I, SERVICE DISCONNECT | EA | | 1/1/2010 | |
| 0780 1 32 | ITS ELECTRICAL POWER, INSTALL, SERVICE WIRE | LF | | 1/1/2010 | |
| 0780 1 41 | ITS ELECTRICAL POWER, RELOCATE,SERVICE | AS | | 1/1/2010 | |
| 0780 1 42 | ITS ELECTRICAL POWER, RELOCATE, SERVICE WIRE | LF | | 1/1/2010 | |
| 0780 1 43 | ITS ELECTRICAL POWER, RELOCATE, SERVICE DISCONNECT | EA | T | 1/1/2010 | |
| 0780 1 51 | ITS ELECTRICAL POWER,ADJUST & MODIFY,SERVICE | AS | | 1/1/2010 | |
| 0780 1 52 | ITS ELECTRICAL POWER, ADJUST & MODIFY,SERVICE WIRE | LF | | 1/1/2010 | |
| 0780 1 61 | ITS ELECTRICAL POWER, REMOVE & DISPOSE, SERVICE | LF | | 1/1/2010 | |
| 0780 1 62 | ITS ELECTRICAL POWER, REMOVE & DISPOSE, SERVICE WIRE | LF | | 1/1/2010 | |
| 0780 1 63 | ITS ELECTRICAL POWER, REMOVE & DISPOSE, SERVICE DISCONNECT | EA | | 1/1/2010 | |

## 781- 2- AB ITS HIGHWAY ADVISORY RADIO

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For installation along the roadway for the purpose of broadcasting traffic advisories to vehicle radios. The HAR installation consists of a radio antenna mounted on a pole, a control cabinet containing the transmitter, power supply, communication hardware, and conduit. The system includes a roadside HAR sign with flashing beacons to alert motorists that a message is being broadcast.
Transmitter wattage, siting information, and installation details should be noted in the plans. For temporary MAS systems during construction, refer to Maintenance Of Traffic, Section 102 items.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 7

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **781- 2- AB** **ITS HIGHWAY ADVISORY RADIO** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

B= Power Type
1 (Solar)
2 (AC)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0781 2 12 | ITS HIGHWAY ADVISORY RADIO, F&I, AC POWER | EA | | 1/1/2010 | |
| 0781 2 41 | ITS HIGHWAY ADVISORY RADIO, RELOCATE, SOLAR POWER | EA | | 1/1/2010 | |
| 0781 2 42 | ITS HIGHWAY ADVISORY RADIO, RELOCATE, AC | EA | | 1/1/2010 | |
| 0781 2 52 | ITS HIGHWAY ADVISORY RADIO, ADJUST/MODIFY, AC | EA | | 1/1/2010 | |

## 781- 3-ABC ITS ROAD WEATHER INFORMATION SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For installation at the roadside, on bridges or other new or existing structures to provide real-time weather data on temperature, humidity, precipitation, wind speed, and direction, and visibility. The RWIS is furnished with the weather instruments necessary to produce the readings desired and collects, stores, and processes the data for transmittal to the transportation management center (TMS). An RWIS with one central monitoring site can serve multiple field installations. The weather sensors are typically mounted on either a dedicated RWIS tower or existing structures.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 7

**Trns·port**

**Other Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **781- 3-ABC** **ITS ROAD WEATHER INFORMATION SYSTEM** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC=00
4 (Relocate) BC=00
5 (Adjust /Modify) BC=00

B= Equipment Type
1 (Field Hardware)
2 (Central Monitoring/Processing Equipment)

C= Sensor Mounting
1 (New Tower Included)
2 (Mounted to Existing Structure)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0781 3112 | ITS ROAD WEATHER INFORMATION SYSTEM, FURNISH & INSTALL, FIELD HARDWARE, MOUNTED TO EXISTING STRUCTURE | EA | | 1/1/2010 | |
| 0781 3121 | ITS ROAD WEATHER INFORMATION SYSTEM, FURNISH & INSTALL, CTRL MONITOR/PROC EQIP, NEW TOWER MOUNT | EA | | 1/1/2010 | |

## 781- 1A-BCD ITS DYNAMIC MESSAGE SIGN

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

From the PPM, "The DMS is an electronic sign capable of displaying more than one message, which is changeable manually, by remote control, or by automatic control. The DMS is intended primarily to advise approaching motorists of freeway conditions, such as road construction or a traffic incident ahead, so that they can take appropriate action. In some instances the DMS could be used to display other messages, such as AMBER Alerts or traveler information related to special events, emergencies, and incidents impacting mobility and safety. A DMS generally displays messages that can be selected or modified by electronic means from a TMC or other central command location. As such, system designs utilizing DMS must also include designs for a communication infrastructure that supports this remote control capability."

18" Character Displays: for installation along interstate, expressway, or limited access corridors, or speed limits of 45 MPH or higher.

12" Character Displays: may only be used on roadways with speed limits lower than 45mph

STRUCTURE TYPES: Mid-span- across one direction of travel; full span- across all lanes; cantilever- at the roadside.

SIGN TYPE: Front display surface, with either line matrix- pixels arranged in rows, or full matrix- pixels fully covering the surface. Designer should note the size of sign, structure, and installation details in the plans.

NOTE:
FURNISH & INSTALL: includes the furnishing of both the truss/structure and sign

FURNISH: Furnish the sign only (Signs are available on State purchase contracts)

INSTALL: Install sign on existing structure

FURNISH & INSTALL STRUCTURE, INSTALL SIGN: When sign is provided by FDOT (may have been purchased on state contract, or relocated from another location). Contractor must provide/construct truss, install sign.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | tabqit: ITS Tabulation Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| References | **PPM Chapter** Vol 1, Chapter 7<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct. 781- 1A-BCD ITS DYNAMIC MESSAGE SIGN EA**

A= Operation
1 (Furnish & Install) Sign and structure; C= 1,2, or 3
2 (Furnish) Sign only; CD = 40
3 (Install) Dept Furnished Sign on existing structure; CD = 40
4 (Relocate Sign) to another existing structure; CD = 40
5 (Relocate Sign and Structure) to a new location; CD = 50
9 (Furnish & Install structure; Install Sign) C = 1, 2, or 3

B=Sign Type
1 (LED Line Matrix- 18" Character Display)
2 (LED Full Matrix- 18" Character Display)
3 (LED Line Matrix- 12" Character Display)
4 (LED Full Matrix- 12" Character Display)

C=Sign Support Structure
1 (Mid-span)
2 (Full Span)
3 (Cantilever) D=1, 2, or 3 only
4 NA: Sign Only; no structure furnished by Contractor; D=0
5 NA: Sign and Structure; valid for A=5 only

D= Horizontal Structure Length
0 (Blank; No Structure) when C=2, 3, 4, 5

1 (0' to 40')
2 (41' to 60')
3 (61' to 80')
4 (81' to 100')
5 (101' to 120')
6 (121 to 140')
7 (141 to 161')
8 (161 to 180')
9 (greater than 180')

**Notes** See detail for Furnish/Install options

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0781 11132 | ITS DYNAMIC MESSAGE SIGN, F&I, LED LINE MATRIX 18" CHAR, CANTILEVER,TRUSS - 41 - 60' | EA | | 1/1/2010 | |
| 0781 11213 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX- 18" CHARACT, MID SPAN, TRUSS - 61 - 80' | EA | | 1/1/2010 | |
| 0781 11214 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, MID SPAN, TRUSS - 81 - 100' | EA | | 1/1/2010 | |
| 0781 11215 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, MID SPAN, TRUSS - 101 - 120' | EA | | 1/1/2010 | |
| 0781 11216 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, MID SPAN, TRUSS - 121 - 140' | EA | | 1/1/2010 | |
| 0781 11217 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, MID SPAN, TRUSS - 141 - 160' | EA | | 1/1/2010 | |
| 0781 11222 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, FULL SPAN, TRUSS - 41 - 60' | EA | | 1/1/2010 | |
| 0781 11223 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, FULL SPAN, TRUSS - 61 - 80' | EA | | 1/1/2010 | |
| 0781 11225 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, FULL SPAN, TRUSS - 101 - 120' | EA | | 1/1/2010 | |
| 0781 11226 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, FULL SPAN, TRUSS - 121 - 140' | EA | | 1/1/2010 | |
| 0781 11227 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, FULL SPAN, TRUSS - 141 - 161' | EA | | 1/1/2010 | |
| 0781 11229 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, FULL SPAN, TRUSS - GREATER THAN 180' | EA | | 1/1/2010 | |
| 0781 11231 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, CANTILEVER, TRUSS - 0 - 40' | EA | | 1/1/2010 | |
| 0781 11232 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, CANTILEVER, TRUSS - 41 - 60' | EA | | 1/1/2010 | |
| 0781 11233 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX, CANTILEVER, TRUSS - 61 - 80' | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0781 11240 | ITS DYNAMIC MESSAGE SIGN, F&I, LED FULL MATRIX,SIGN ONLY,NO STRUCTURE | EA | 1/1/2010 |
| 0781 13213 | ITS DYNAMIC MESSAGE SIGN, INSTALL, LED FULL MATRIX, MID SPAN,TRUSS - 61 - 80' | EA | 1/1/2010 |
| 0781 13215 | ITS DYNAMIC MESSAGE SIGN, INSTALL, LED FULL MATRIX, MID SPAN,TRUSS - 101 - 120' | EA | 1/1/2010 |
| 0781 13216 | ITS DYNAMIC MESSAGE SIGN, INSTALL, LED FULL MATRIX MID SPAN,TRUSS - 121 - 140' | EA | 1/1/2010 |
| 0781 13217 | ITS DYNAMIC MESSAGE SIGN, INSTALL, LED FULL MATRIX MID SPAN,TRUSS - 141 - 160' | EA | 1/1/2010 |
| 0781 13228 | ITS DYNAMIC MESSAGE SIGN, INSTALL, LED FULL MATRIX, FULL SPAN, 161-180' | EA | 1/1/2010 |
| 0781 13231 | ITS DYNAMIC MESSAGE SIGN, INSTALL, LED - FULL MATRIX, CANTILEVER, 0 - 40' | EA | 1/1/2010 |
| 0781 13240 | ITS DYNAMIC MESSAGE SIGN, INSTALL, LED FULL MATRIX, SIGN ONLY, NO STRUCTURE | EA | 1/1/2010 |
| 0781 14240 | ITS DYNAMIC MESSAGE SIGN, RELOCATE SIGN TO EXISTING STRUCT, LED FULL MATRIX, SIGN ONLY | EA | 1/1/2010 |
| 0781 15250 | ITS DYNAMIC MESSAGE SIGN, RELOCATE SIGN AND STRUCTURE, LED FULL MATRIX | EA | 1/1/2010 |
| 0781 19213 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, MID SPAN, TRUSS - 61 - 80' | EA | 1/1/2010 |
| 0781 19214 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, MID SPAN, TRUSS - 81 - 100' | EA | 1/1/2010 |
| 0781 19215 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, MID SPAN, TRUSS - 101 TO 120' | EA | 1/1/2010 |
| 0781 19216 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, MID SPAN, TRUSS - 121 TO 140' | EA | 1/1/2010 |
| 0781 19225 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, FULL SPAN, TRUSS - 101 TO 120' | EA | 1/1/2010 |
| 0781 19227 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, FULL SPAN, TRUSS - 141 TO 161' | EA | 1/1/2010 |
| 0781 19228 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, FULL SPAN, TRUSS - 161 TO 180' | EA | 1/1/2010 |
| 0781 19229 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, FULL SPAN, TRUSS - GREATER THAN 180' | EA | 1/1/2010 |
| 0781 19231 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, CANTILEVER, TRUSS - 0-40' | EA | 1/1/2010 |
| 0781 19232 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX, CANTILEVER, TRUSS - 41 - 60' | EA | 1/1/2010 |

| | | | |
|---|---|---|---|
| 0781 19431 | ITS DYNAMIC MESSAGE SIGN, F&I TRUSS, INSTALL SIGN, LED FULL MATRIX 12", CANTILEVER, TRUSS - 0-40' | EA | 1/1/2010 |

## 782- 1- AB ITS CCTV CAMERA

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For installations along the roadway or intersections, to provide video of traffic movements. Includes mounting hardware, cabling, and power supply. Cameras can be dome style enclosures, or "barrel type" units with external positioners. Either unit can be pressurized to reduce the effects of moisture, dust, and other contaminants.

FURNISH: Requires approval of the State ITS Office, when items are to be installed by FDOT. All contractor installed items should use F&I.

REMOVE & DISPOSE: Plans or Specs should identify the limits of the item to be removed (incidental components, wiring, or other work).

REMOVE & STOCKPILE: Plans or Specs should indicate if the Contractor is to stockpile the item(s) within the project limits, or deliver to a FDOT maintenance yard.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 7

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **782- 1- AB** **ITS CCTV CAMERA** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish) requires approval by ITS office
3 (Install) B=0, Item furnished by local agency
4 (Relocate) B=0
5 (Adjust /Modify) B=0
6 (Remove & Dispose) B=0
7 (Remove & Stockpile) B=0

B= Type
1 (Dome enclosure, pressurized)
2 (External positioner, pressurized)
3 (Dome enclosure, non-pressurized)

4 (External positioner, non-pressurized)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0782 1 11 | ITS CCTV CAMERA, F&I, DOME ENCLOSURE - PRESSURIZED | EA | | 1/1/2010 | |
| 0782 1 12 | ITS CCTV CAMERA, F&I, EXTERNAL POSITIONER - PRESSURIZED | EA | | 1/1/2010 | |
| 0782 1 13 | ITS CCTV CAMERA, F&I, DOME ENCLOSURE - NON PRESSURIZED | EA | | 1/1/2010 | |
| 0782 1 30 | ITS CCTV CAMERA, INSTALL | EA | | 7/1/2011 | |
| 0782 1 31 | ITS CCTV CAMERA, INSTALL, DOME ENCLOSURE, PRESSURIZED | EA | | 1/1/2010 | 6/30/2011 |
| 0782 1 40 | ITS CCTV CAMERA, RELOCATE | EA | | 1/1/2010 | |
| 0782 1 41 | ITS CCTV CAMERA, RELOCATE, DOME ENCLOSURE, PRESSURIZED | EA | | 1/1/2010 | 6/30/2011 |
| 0782 1 43 | ITS CCTV CAMERA, RELOCATE, DOME ENCLOSURE, NON - PRESSURIZED | EA | | 1/1/2010 | 6/30/2011 |
| 0782 1 60 | ITS CCTV CAMERA,, REMOVE & DISPOSAL | EA | | 7/1/2011 | |
| 0782 1 61 | ITS CCTV CAMERA,, REMOVE & DISPOSAL | EA | | 1/1/2010 | 6/30/2011 |
| 0782 1 70 | ITS CCTV CAMERA, REM0VE & STOCKPILE | EA | | 7/1/2011 | |
| 0782 1 71 | ITS CCTV CAMERA,, REMOVE & STOCKPILE | EA | | 1/1/2010 | 6/30/2011 |

## 782- 2-ABC ITS VIDEO DISPLAY

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use in the Transportation Management Center (TMC) to display video from the CCTV cameras in the field, and for displaying maps, graphics, traffic counts, and other visuals. Video Display cubes can be stacked to form a wall display. Other monitors are positioned in the room or on the operator's desktops for control purposes.
The video controller receives the incoming video signals and arranges them on the various displays.
Display types, room layout, and installation details must be noted in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **782- 2-ABC** **ITS VIDEO DISPLAY** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) Item furnished by local agency
4 (Relocate)
5 (Adjust /Modify)

B= Component
1 (Cube for video wall) C=2
2 (Workstation) C=1 or 3
3 (Monitor)
4 (Controller) C=0

C= Technology
1 (LCD- Liquid Crystal Display)
2 (Rear Projection)
3 (CRT- Cathode Ray Tube)
4 (Special)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0782 2121 | ITS VIDEO DISPLAY, F&I, WORK STATION, LIQUID CRYSTAL DISPLAY | EA | | 1/1/2010 | |
| 0782 2131 | ITS VIDEO DISPLAY, F&I, MONITOR, LIQUID CRYSTAL DISPLAY | EA | | 1/1/2010 | |
| 0782 2140 | ITS VIDEO DISPLAY, F&I, CONTROLLER | EA | | 1/1/2010 | |

## 782- 3- A ITS REST AREA INFORMATION SYSTEMS

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For use in highway rest areas for the display of traffic conditions and other information for the traveling public. The system is rack mounted and has the necessary processing power, memory, network connection, and video output capability to provide images for LCD displays in the lobby or concourse area of rest plazas.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
tabqit: ITS Tabulation Quantity Sheet
Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**

**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **782- 3- A** **ITS REST AREA INFORMATION SYSTEMS** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust & Modify)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 783- 1-ABC ITS FIBER OPTIC CABLE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For use in fiber optic networks that support ITS devices and their connection to communication hubs, transportation management centers, and related facilities.
Use "overhead" for installations involving bridges and other aboveground structures. Use "underground" for cable placed in buried conduit along the roadside.
*******
REMOVE (A=6): For cable to be removed, detail location and size of cable (approximate number of fibers) to be removed. Contractor takes ownership (remove & dispose), unless otherwise indicated in the plans or specs.
REMOVE & STOCKPILE (A=7): For cable to be removed, detail location and size of cable (approximate number of fibers) to be removed. FDOT retains ownership of cable. Detail in plans location for stockpile, i.e. Maintenance yard.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter** Vol 1, Chapter 7
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 1-ABC** **ITS FIBER OPTIC CABLE** **LF**

A= Operation
1 (Furnish & Install)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove) BC=00
7 (Remove and Stockpile) BC=00

B= Location
1 (Overhead)
2 (Underground)

C= Number of Fibers in Cable
1 (2 to 12)
2 (13 to 48)
3 (49 to 96)
4 (97 to 144)

**Notes** *Remove item may require plan details and/or tech spec

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 1111 | ITS FIBER OPTIC CABLE, F& I, OVERHEAD, 2 -12 FIBERS | LF | | 1/1/2010 | |
| 0783 1112 | ITS FIBER OPTIC CABLE, F& I, OVERHEAD, 13 - 48 FIBERS | LF | | 1/1/2010 | |
| 0783 1113 | ITS FIBER OPTIC CABLE, F& I, OVERHEAD, 49-96 FIBERS | LF | | 1/1/2010 | |
| 0783 1121 | ITS FIBER OPTIC CABLE, F& I, UNDERGROUND, 2 -12 FIBERS | LF | | 1/1/2010 | |
| 0783 1122 | ITS FIBER OPTIC CABLE, F& I, UNDERGROUND, 13 -48 FIBERS | LF | | 1/1/2010 | |
| 0783 1123 | ITS FIBER OPTIC CABLE, F& I, UNDERGROUND, 49 - 96 FIBERS | LF | | 1/1/2010 | |
| 0783 1124 | ITS FIBER OPTIC CABLE, F& I, UNDERGROUND, 97-144 FIBERS | LF | | 1/1/2010 | |
| 0783 1322 | ITS FIBER OPTIC CABLE, INSTALL, UNDERGROUND, 13-48 FIBERS | LF | | 1/1/2010 | |
| 0783 1323 | ITS FIBER OPTIC CABLE, INSTALL, UNDERGROUND, 49 - 96 FIBERS | LF | | 1/1/2010 | |
| 0783 1411 | ITS FIBER OPTIC CABLE, RELOCATE, OVERHEAD, 2 -12 FIBERS | LF | | 1/1/2010 | |
| 0783 1412 | ITS FIBER OPTIC CABLE, RELOCATE, OVERHEAD, 13 -48 FIBERS | LF | | 1/1/2010 | |
| 0783 1413 | ITS FIBER OPTIC CABLE, RELOCATE, OVERHEAD, 49 - 96 FIBERS | LF | | 1/1/2010 | |
| 0783 1421 | ITS FIBER OPTIC CABLE,RELOCATE,UNDERGROUND,2-12 FIBERS | LF | | 1/1/2010 | |
| 0783 1422 | ITS FIBER OPTIC CABLE, RELOCATE, UNDERGROUND, 13 -48 FIBERS | LF | | 1/1/2010 | |
| 0783 1423 | ITS FIBER OPTIC CABLE, RELOCATE, UNDERGROUND, 49 - 96 FIBERS | LF | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0783 1511 | ITS FIBER OPTIC CABLE, ADJUST/MODIFY, OVERHEAD, 2-12 FIBERS | LF | 1/1/2010 |
| 0783 1512 | ITS FIBER OPTIC CABLE, ADJUST/MODIFY, OVERHEAD, 13-48 FIBERS | LF | 1/1/2010 |
| 0783 1521 | ITS FIBER OPTIC CABLE, ADJUST/MODIFY, UNDERGRO, 2-12 FIBERS | LF | 1/1/2010 |
| 0783 1522 | ITS FIBER OPTIC CABLE, ADJUST/MODIFY,UNDERGRND,13-48 FIBERS | LF | 1/1/2010 |
| 0783 1523 | ITS FIBER OPTIC CABLE, ADJUST & MODIFY, UNDERGROUND, 49 - 96 FIBERS | LF | 1/1/2010 |
| 0783 1524 | ITS FIBER OPTIC CABLE, ADJUST/MODIFY,UNDERGRND,97-144 FIBERS | LF | 1/1/2010 |
| 0783 1600 | ITS FIBER OPTIC CABLE, REMOVE | LF | 1/1/2010 |
| 0783 1700 | ITS FIBER OPTIC CABLE, REMOVE & STOCKPILE | LF | 1/1/2010 |

## 783- 2- AB ITS FIBER OPTIC CONNECTION

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use in fiber optic networks where segments of fiber optic cable must be spliced together, or when cables must be terminated at the end of a segment. Note that each connection involves the fusing of individual optical fibers in a cable. Payment "each" is for each FIBER to be connected.
Type of connection must be noted in the plans.

**Related Items** **Required** **Recommended** 783-3

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 2- AB** **ITS FIBER OPTIC CONNECTION** **EA**

A= Operation
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

B= Type
1 (Splice)
2 (Termination)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 2 31 | ITS FIBER OPTIC CONNECTION, INSTALL, SPLICE | EA | | 1/1/2010 | |
| 0783 2 32 | ITS FIBER OPTIC CONNECTION, INSTALL, TERMINATION | EA | | 1/1/2010 | |
| 0783 2 41 | ITS FIBER OPTIC CONNECTION, RELOCATE, SPLICE | EA | | 1/1/2010 | |
| 0783 2 42 | ITS FIBER OPTIC CONNECTION, RELOCATE, TERMINATION | EA | | 1/1/2010 | |
| 0783 2 51 | ITS FIBER OPTIC CONNECTION,ADJUST/MODIFY, SPLICE | EA | | 1/1/2010 | |
| 0783 2 52 | ITS FIBER OPTIC CONNECTION,ADJUST/MODIFY, TERMINATION | EA | | 1/1/2010 | |

## 783- 3- AB ITS FIBER OPTIC CONNECTION HARDWARE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use in fiber optic networks, where segments of cable must be spliced together. This item includes hardware and incidental materials for splices; payment for splicing individual fibers is made under 783-2.

For B=8 (Patch Cord), tech spec needed to describe the patch cord requirements. FO patch cords or Cat5 cables may be considered as incidental to the hardware to be installed. Ensure that the plans/specs clearly define if separate payment will be made for patch cords. Otherwise, payment will be considered as incidental to hardware being installed. When multiple cords/cables are needed, use a tabulation sheet in the plans to clearly Identify the number of pairs and length of each cord/cable.

**Related Items** **Required** **Recommended** 783-2

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 3- AB** **ITS FIBER OPTIC CONNECTION HARDWARE** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

B=Component
1 (Splice Enclosure)
2 (Splice Tray)
3 (Preterminated Connector Assembly)
4 (Buffer Tube Fan Out Kit)
5 (Patch Panel, Preterminated)
6 (Patch Panel, Field Terminated)
7 (Connector Panel)
8 (Patch Cord)* Tech Spec needed; see BOE detail

**Notes** *B=8: Tech Spec needed. Coordinate the use of this item with ITS Office.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 3 11 | ITS FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE | EA | | 1/1/2010 | |
| 0783 3 12 | ITS FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE, TRAY | EA | | 1/1/2010 | |
| 0783 3 13 | ITS FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED CONNECTOR ASSEMBLY | EA | | 1/1/2010 | |
| 0783 3 14 | ITS FIBER OPTIC CONNECTION HARDWARE, F&I, BUFFER TUBE FAN OUT KIT | EA | | 1/1/2010 | |
| 0783 3 15 | ITS FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL, PRETERMINATED | EA | | 1/1/2010 | |
| 0783 3 16 | ITS FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL. FIELD TERMINATED | EA | | 1/1/2010 | |
| 0783 3 17 | ITS FIBER OPTIC CONNECTION HARDWARE, F&I, CONNECTOR PANEL | EA | | 1/1/2010 | |
| 0783 3 32 | ITS FIBER OPTIC CONNECTION HARDWARE, INSTALL, SPLICE TRAY | EA | | 1/1/2010 | |
| 0783 3 41 | ITS FIBER OPTIC CONNECTION HARDWARE, RELOCATEI, SPLICE ENCLOSURE | EA | | 1/1/2010 | |
| 0783 3 45 | ITS FIBER OPTIC CONNECTION HARDWARE, REL, PATCH PANEL, PRETERMINATED | EA | | 1/1/2010 | |
| 0783 3 51 | ITS FIBER OPTIC CONNECTION HARDWARE, ADJUST/MODIFY, SPLICE ENCLOSURE | EA | | 1/1/2010 | |
| 0783 3 56 | ITS FIBER OPTIC CONNECTION HARDWARE, ADJUST & MODIFY PATCH PANEL FIELD TERMINATED | EA | | 1/1/2010 | |
| 0783 3 58 | ITS FIBER OPTIC CONNECTION HARDWARE, ADJUST/MODIFY, SPECIAL | EA | | 1/1/2010 | |

**783- 4-1AB** **ITS CONDUIT**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For fiber optic cable and ITS devices only. Quantity is based on the total length of conduit installed, regardless of whether multiple conduits are located within a trench or casing.
Underground: to be used when conduit is installed prior to placement of pavement, or where it does not interfere with existing pavement.
Underpavement Sawcut: to be used only when sawcutting is necessary for location under EXISTING PAVEMENT.

Note: Specification change effective 7-1-08 letting has separate payment for Electronic Locate Transmitter & Receiver. Refer to specification for payment details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 4-1AB** **ITS CONDUIT** **LF**

A= Operation
1 (Furnish & Install)
2 (Furnish) B=0
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove and Dispose) B=0

B= Location
1 (Aboveground)
2 (Underground)
3 (Underpavement Sawcut) Note: to be used only when sawcutting is necessary
9 (Special)*

**Notes** *Special to be used only with approval of the ITS Office
Plan Details and/or Tech Specs needed for Install, Relocate, Adjust/Modify, and Remove items.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 4111 | ITS CONDUIT, F& I, ABOVEGROUND | LF | | 1/1/2010 | |
| 0783 4112 | ITS CONDUIT, F& I, UNDERGROUND | LF | | 1/1/2010 | |
| 0783 4113 | ITS CONDUIT, F& I, UNDER EXISTING PAVEMENT SAWCUT | LF | | 1/1/2010 | |
| 0783 4141 | ITS CONDUIT, RELOCATE, ABOVE GROUND | LF | | 1/1/2010 | |
| 0783 4142 | ITS CONDUIT, RELOCATEI, UNDERGROUND | LF | | 1/1/2010 | |
| 0783 4152 | ITS CONDUIT, ADJUST/MODIFYI, UNDERGROUND | LF | | 1/1/2010 | |
| 0783 4159 | ITS CONDUIT, ADJUST/MODIFYI, SPECIAL | LF | | 1/1/2010 | |
| 0783 4160 | ITS CONDUIT, REMOVE&DISPOSE | LF | | 1/1/2010 | |

## 783- 5- A ITS PULL BOX FOR FIBER OPTIC

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For use in fiber optic networks as an access point for moving cable into position during installation. Refer to specification for size, materials, and other details for box.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 5- A** **ITS PULL BOX FOR FIBER OPTIC** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 5 1 | ITS PULL BOX FOR FIBER OPTIC CABLE, FURNISH AND INSTALL | EA | | 1/1/2010 | |
| 0783 5 4 | ITS PULL BOX FOR FIBER OPTIC CABLE, RELOCATE | EA | | 1/1/2010 | |
| 0783 5 5 | ITS PULL BOX FOR FIBER OPTIC CABLE, ADJUST AND MODIFY | EA | | 1/1/2010 | |

## 783- 6- A ITS SPLICE BOX FOR FIBER OPTIC

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use in fiber optic networks as a housing for the connection or termination of cable segments. Refer to specification for size, materials, and other details for box.

REMOVE AND DISPOSE (A=6): Detail size and location in the plans. Contractor assumes ownership after removal- for disposal by the contractor.
REMOVE AND STOCKPILE (A=7): Detail size and location in the plans. FDOT retains ownership of the item. Detail location for stockpile, i.e. Maintenance yard or project Right of way.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 6- A** **ITS SPLICE BOX FOR FIBER OPTIC** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove & Dispose)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 6 1 | ITS SPLICE BOX FOR FIBER OPTIC CABLE, F & I | EA | | 1/1/2010 | |
| 0783 6 2 | ITS SPLICE BOX FOR FIBER OPTIC , FURNISH | EA | | 1/1/2010 | |
| 0783 6 3 | ITS SPLICE BOX FOR FIBER OPTIC , INSTALL | EA | | 1/1/2010 | |
| 0783 6 4 | ITS SPLICE BOX FOR FIBER OPTIC CABLE, RELOCATE | EA | | 1/1/2010 | |
| 0783 6 5 | ITS SPLICE BOX FOR FIBER OPTIC CABLE, ADJUST/ MODIFY | EA | | 1/1/2010 | |
| 0783 6 6 | ITS SPLICE BOX FOR FIBER OPTIC CABLE, REMOVE AND DISPOSE | EA | | 1/1/2010 | |

## 783- 7- A ITS PULL AND JUNCTION BOX

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use on ITS projects. To be used for non-fiber optic wiring needs (power, communication, etc for ITS systems). Full details/specs are needed for this item. Designer may refer to other specification sections, as needed to detail required box.

NOTE: THIS ITEM IS NOT covered by current 783 specification.

For Pull/Junction or Splice Box for Fiber Optics, refer to items 783-5 and 783-6, as detailed in the specifications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.
*********
REMOVE AND STOCKPILE (A=7): Detail size and location in the plans. FDOT retains ownership of the item. Detail location for stockpile, i.e. Maintenance yard or project Right of way.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 7- A** **ITS PULL AND JUNCTION BOX** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
7 (Remove and Stockpile)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 7 1 | ITS PULL & JUNCTION BOX, FURNISH AND INSTALL | EA | T | 1/1/2010 | |
| 0783 7 3 | ITS PULL & JUNCTION BOX, INSTALL | EA | T | 1/1/2010 | |
| 0783 7 4 | ITS PULL & JUNCTION BOX, RELOCATE | EA | T | 1/1/2010 | |
| 0783 7 5 | ITS PULL & JUNCTION BOX, ADJUST/MODIFY | EA | T | 1/1/2010 | |
| 0783 7 7 | ITS PULL & JUNCTION BOX, REMOVE & STOCKPILE | EA | T | 1/1/2010 | |

## 783- 8- A ITS MULTI-CONDUCTOR COMMUNICATION CABLE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

For use on ITS projects. Tech Spec and/or plan detail needed to specify material requirements and/or number of conductors. Primarily for communications, may carry incidental low voltage device power. When multiple cables are needed, use a tabulation sheet in the plans to clearly Identify the number of pairs and length of each cable. Record the total length for payment under this pay item.

Note: FO patch cords or Cat5 cables may be considered as incidental to the hardware to be installed. Refer to 783-3 for patch cords.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

**References** **PPM Chapter**

**Trns·port**

**Other**
**Standards**
**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 8- A** **ITS MULTI-CONDUCTOR COMMUNICATION CABLE** **LF**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 8 1 | ITS MULTI-CONDUCTOR COMMUNICATION CABLE, F&I | LF | T | 1/1/2010 | |
| 0783 8 3 | ITS MULTI-CONDUCTOR COMMUNICATION CABLE, INSTALL | LF | T | 1/1/2010 | |
| 0783 8 4 | ITS MULTI-CONDUCTOR COMMUNICATION CABLE, RELOCATE | LF | T | 1/1/2010 | |
| 0783 8 5 | ITS MULTI-CONDUCTOR COMMUNICATION CABLE, ADJUST/MODIFY | LF | T | 1/1/2010 | |

## 783- 9- AB ITS LOCATE SYSTEM ELECTRONIC EQUIPMENT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use on ITS projects. This pay items is intended for the electronic equipment used to detect buried conduit and other underground duct, cable, and infrastructure. The electronics used for this activity typically includes a portable transmitter, a hand-held receiver, and electronic markers that cane be used together to determine the location of the underground utilities and other objects.
Special configuration and/or installation details should be detailed in the plans on a project-by project basis.

Electronic Box Marker: Specifications call for one electronic box marker in each pull box and splice box buried below finish grade. Additional markers may be used for existing ITS boxes within project limits.

NOTE: This item effective with the July 2008 letting; for projects let prior to July 2008, transmitter and receiver are included in the ITS conduit price, per specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **783- 9- AB** **ITS LOCATE SYSTEM ELECTRONIC EQUIPMENT** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

B = Equipment Type
1 (Transmitter)
2 (Receiver)
3 (Electronic Box Marker) Note: Do not use this item for Electronic Route Markers

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0783 9 11 | ITS LOCATE SYSTEM ELECTRONIC EQUIPMENT, TRANSMITTER | EA | | 1/1/2010 | |
| 0783 9 12 | ITS LOCATE SYSTEM ELECTRONIC EQUIPMENT, RECEIVER | EA | | 1/1/2010 | |
| 0783 9 13 | ITS LOCATE SYSTEM ELECTRONIC EQUIPMENT, BOX MARKER | EA | | 1/1/2010 | |

**784- 1- A** **ITS MANAGED FIELD ETHERNET SWITCH**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** For use in ITS communication networks to provide wire-speed fast Ethernet connections for ITS field devices. The Ethernet switch is hardened to withstand harsh environments and provides transmission rates of 100 megabits per second from the remote ITS device installation location to the ITS network trunk interconnection point.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **784- 1- A** **ITS MANAGED FIELD ETHERNET SWITCH** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove and Dispose) Contractor takes ownership

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0784 1 1 | ITS MANAGED FIELD ETHERNET SWITCH, F&I | EA | | 1/1/2010 | |
| 0784 1 2 | ITS MANAGED FIELD ETHERNET SWITCH, FURNISH ONLY | EA | | 1/1/2010 | |
| 0784 1 3 | ITS MANAGED FIELD ETHERNET SWITCH, INSTALL | EA | | 1/1/2010 | |
| 0784 1 4 | ITS MANAGED FIELD ETHERNET SWITCH, RELOCATE | EA | | 1/1/2010 | |
| 0784 1 6 | ITS MANAGED FIELD ETHERNET SWITCH, REMOVE & DISPOSE, CONTRACTOR TAKE OWNERSHIP | EA | | 1/1/2010 | |

**784- 2- A** **ITS DEVICE SERVER**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use when an ITS field device must connect to an Ethernet network but the device is only equipped with serial communication ports (i.e. EIA-232, EIA-422, or EIA-485 connections). Field devices that may require use of device servers include highway advisory radio field assemblies, microwave vehicle detection system devices, magnetic traffic detection systems, road weather information system stations, and other low-speed data output devices.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **784- 2- A** **ITS DEVICE SERVER** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove and Dispose) Contractor takes ownership

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0784 2 1 | ITS DEVICE SERVER, F&I | EA | | 1/1/2010 | |
| 0784 2 3 | ITS DEVICE SERVER, INSTALL | EA | | 1/1/2010 | |
| 0784 2 4 | ITS DEVICE SERVER, ADJUST/MODIFY | EA | | 1/1/2010 | |

## 784- 3- AB ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use when analog video and data signals obtained in the field must be converted to digital signals for transmission across IP networks. The encoder and decoder are independent, network-based devices that utilize MPEG-2 and other video compression algorithms for transmission of high-bandwidth signals. Encoders may be hardened devices and are installed in the field. Decoders are housed in transportation management centers and can be either a hardware device or a decoder software program running on a computer.
NOTE: Software based decoder is incidental to the digital video encoder, per specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **784- 3- AB** **ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) B=0
4 (Relocate) B=0
5 (Adjust /Modify) B=0
6 (Remove and Dispose) Contractor takes ownership, B=0

B= Component
1 (Hardened Encoder)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0784 3 11 | ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER, F&I, HARDENED ENCODER | EA | | 1/1/2010 | |
| 0784 3 30 | ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER, INSTALL | EA | T | 1/1/2010 | |
| 0784 3 50 | ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER, AJDUST/MODIFY | EA | T | 1/1/2010 | |
| 0784 3 60 | ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER, REMOVE & DISPOSE, HARDENED ENCODER | EA | | 1/1/2010 | |

**784- 4- AB** **ITS DIGITAL VIDEO DECODER**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

DO NOT USE with Digital Video Encoder; see details with 784-3 item.
This item to be used only when a hardware-based decoder, or additional copies of the software-based decoder are needed.
Contact ITS Section prior to opening.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **784- 4- AB** **ITS DIGITAL VIDEO DECODER** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) B=0
4 (Relocate) B=0
5 (Adjust /Modify) B=0
6 (Remove and Dispose) Contractor takes ownership B=0

B= Component*
1 (Hardware-based decoder)
2 (Software-based decoder)
*See details and/or specifications

**Notes** Contact ITS Section prior to opening.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 784- 5- AB ITS MANAGED ETHERNET HUB SWITCH

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use in ITS communication networks to provide centralized Ethernet connections for ITS field devices utilizing field or edge switches. The Ethernet hub switch is hardened to withstand harsh environments and installation at remote locations. "Long haul" and "short haul" are common terms applied to telecommunication equipment in order to generally describe a devices ability to transmit information over various distances.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **784- 5- AB** **ITS MANAGED ETHERNET HUB SWITCH** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate))
5 (Adjust /Modify)
6 (Remove and Dispose) Contractor takes ownership

B= Type
1 (Long Haul)
2 (Short Haul)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0784 5 11 | ITS MANAGED ETHERNET HUB SWITCH,F&I, LONG HAUL | EA | T | 1/1/2010 | |
| 0784 5 12 | ITS MANAGED ETHERNET HUB SWITCH,F&I, SHORT HAUL | EA | T | 1/1/2010 | |
| 0784 5 30 | ITS MANAGED ETHERNET HUB SWITCH,INSTALL | EA | T | 1/1/2010 | |
| 0784 5 51 | ITS MANAGED ETHERNET HUB SWITCH, ADJUST/MODIFY, LONG HAUL | EA | T | 1/1/2010 | |

## 784- 6- AB ITS WIRELESS COMMUNICATION DEVICE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use in transmitting and receiving data in ITS networks, especially between remotely located field devices and the mainline communications infrastructure tat serves them. Devices include radio transmitter-receivers and antennas, power-over-Ethernet (PoE) injectors, serial cable, power supplies and mounting hardware. Access points and subscriber units are typically associated with Ethernet systems.
Specifications needed to detail equipment requirements.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **784- 6- AB** **ITS WIRELESS COMMUNICATION DEVICE** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate))
5 (Adjust /Modify)
6 (Remove and Dispose) B=0, Contractor takes ownership

B= Type
1 (Ethernet Access Point)
2 (Ethernet Subscriber Unit)
3 (Serial Data Unit)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0784 6 11 | ITS WIRELESS COMMUNICATION DEVICE,F&I,ETHERNET ACCESS POINT | EA | T | 1/1/2010 | |
| 0784 6 12 | ITS WIRELESS COMMUNICATION DEVICE, F&I, ETHERNET SUBSCRIBER UNIT | EA | T | 1/1/2010 | |
| 0784 6 41 | ITS WIRELESS COMMUNICATION DEVICE,RELOCATE,ETHERNET ACCESS POINT | EA | T | 1/1/2010 | |
| 0784 6 60 | ITS WIRELESS COMMUNICATION DEVICE,REMOVE & DISPOSE | EA | T | 1/1/2010 | |

**785- 1- AB** **ITS POLE**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

Use a lowering device in field locations where a CCTV camera or other ITS device is mounted on a pole, but the height precludes easy access to the equipment for maintenance or repair. The lowering device is provided along with a steel or concrete pole.

REMOVE: Plans or specs should identify if contactor is to take ownership, stockpile, or deliver item(s) to a FDOT maintenance yard.
Retrofit: to be used where a pole is already provided, to include furnishing & installation of lowering device.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | pldtit: ITS Pole Tabulation & Details for all Types<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| References | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **785- 1- AB** **ITS POLE** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove) B=0
9 (Retrofit lowering device on existing pole) B=0

B= Type
1 (Concrete Pole w/ lowering device)
2 (Steel Pole w/ lowering device)
3 (Concrete Pole w/o lowering device)
4 (Steel Pole w/o lowering device)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0785 1 11 | ITS POLE, F&I, CONCRETE - WITH LOWERING DEVICE | EA | | 1/1/2010 | |
| 0785 1 12 | ITS POLE, F&I, STEEL WITH LOWERING DEVICE | EA | | 1/1/2010 | |
| 0785 1 13 | ITS POLE, F&I, CONCRETE WITHOUT LOWERING DEVICE | EA | | 1/1/2010 | |
| 0785 1 14 | ITS POLE, F&I, STEEL WITHOUT LOWERING DEVICE | EA | | 1/1/2010 | |
| 0785 1 42 | ITS POLE, RELOCATE, STEEL POLE WITH LOWERING DEVICE | EA | | 1/1/2010 | |

| | | | |
|---|---|---|---|
| 0785 1 43 | ITS POLE, RELOCATE, CONCRETE POLE WITHOUT LOWERING DEVICE | EA | 1/1/2010 |
| 0785 1 60 | ITS POLE, REMOVE | EA | 1/1/2010 |
| 0785 1 63 | ITS POLE, REMOVE, CONCRETE POLE WITHOUT LOWERING DEVICE | EA | 1/1/2010 |

## 785- 2-ABC ITS FIELD CABINET

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use on ITS project. Refer to Specification for cabinets covered by Section 785.
For Install, relocate, or adjust/modify operations, detail mounting requirements in the plans and/or specifications. Specifications for Install only items should include existing location of materials/equipment (i.e. maintenance yard address)
NOTE: Items listed in other sections may have cabinets incidental to item being installed.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **785- 2-ABC** **ITS FIELD CABINET** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC=00
4 (Relocate) BC=00
5 (Adjust /Modify) BC=00
6 (Remove and Dispose) Contractor takes ownership BC=00

B= Type
1 (Type 336)
2 (Type 336 w/ sunshields)
3 (Type 336S)

4 (Type 336S w/ sunshields)
5 (Type 332)
6 (Type 332 w/ sunshields)
9 (Special)*

C= Mounting
1 (Pole Mount)
2 (Ground Mount)

**Notes** * Special may require Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0785 2111 | ITS FIELD CABINET, F&I, TYPE 336, POLE MOUNT | EA | | 1/1/2010 | |
| 0785 2112 | ITS FIELD CABINET, F&I, TYPE 336, GROUND MOUNT | EA | | 1/1/2010 | |
| 0785 2121 | ITS FIELD CABINET, F&I, TYPE 336 WITH SUNSHIELDS, POLE MOUNT | EA | | 1/1/2010 | |
| 0785 2122 | ITS FIELD CABINET, F&I, TYPE 336 WITH SUNSHIELDS, GROUND MOUNT | EA | | 1/1/2010 | |
| 0785 2131 | ITS FIELD CABINET, F&I, TYPE 336S, POLE MOUNT | EA | | 1/1/2010 | |
| 0785 2141 | ITS FIELD CABINET, F&I, TYPE 336S WITH SUNSHIELDS, POLE MOUNT | EA | | 1/1/2010 | |
| 0785 2161 | ITS FIELD CABINET, F&I, TYPE 332 W/SUNSHIELDS, POLE MOUNT | EA | | 1/1/2010 | |
| 0785 2162 | ITS FIELD CABINET, F&I, TYPE 332 W/SUNSHIELDS, GROUND MOUNT | EA | | 1/1/2010 | |
| 0785 2191 | ITS FIELD CABINET, F&I, SPECIAL, POLE MOUNT | EA | | 1/1/2010 | |
| 0785 2192 | ITS FIELD CABINET, F&I, SPECIAL, GROUND MOUNT | EA | | 1/1/2010 | |
| 0785 2300 | ITS FIELD CABINET, INSTALL | EA | | 1/1/2010 | |
| 0785 2400 | ITS FIELD CABINET, RELOCATE | EA | | 1/1/2010 | |
| 0785 2500 | ITS FIELD CABINET, ADJUST/MODIFY | EA | | 1/1/2010 | |
| 0785 2600 | ITS CABINET, REMOVE & DISPOSE | EA | | 1/1/2010 | |

## 785- 3-ABC ITS EQUIPMENT SHELTER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use on ITS Projects. Refer to Specification for cabinets/shelter covered by Section 785. All shelter/building incidentals must be detailed in the plans or specifications, including electrical, mechanical, and/or HVAC.

DO NOT Use 750 Architectural Items with this item.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqit: ITS Tabulation Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **785- 3-ABC** **ITS EQUIPMENT SHELTER** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)*
3 (Install) BC=00*
4 (Relocate) BC=00*
5 (Adjust /Modify) BC=00
6 (Remove and Dispose) Contractor takes ownership

B= Size (from exterior dimensions)
1 (up to 120 ft2)
2 (121 to 170 ft2)
3 (171 to 250 ft2)
9 (Special)*

C= Interior Ceiling Height
1 (8 ft)
2 (9 ft)

**Notes**

*A=2, 3, 4 verify with ITS Office prior to opening
*B=9 may require Tech Spec or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0785 3111 | ITS EQUIPMENT SHELTER, F&I, 120 SQUARE FEET OR LESS 8' INTERIOR CEILING HEIGHT | EA | T | 1/1/2010 | |
| 0785 3112 | ITS EQUIPMENT SHELTER, F&I, 120 SQUARE FEET OR LESS 9' INTERIOR CEILING HEIGHT | EA | T | 1/1/2010 | |
| 0785 3191 | ITS EQUIPMENT SHELTER, F&I, SPECIAL 9' INTERIOR CEILING HEIGHT | EA | T | 1/1/2010 | |

**786- 1- AB** **ITS VEHICLE DETECTION SYSTEM**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

For use on ITS Projects. Refer to Specifications for types of detection systems. Special Detection Systems require approval of the State ITS Office.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| Design Forms and Documentation | tabqit: ITS Tabulation Quantity Sheet<br>Locate in plans. Summarize quantities by location on summary sheet in the plans. | |
| Construction Forms and Documentation | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Selected Items may require Plan Details and/or Technical Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0550 ITS or Signalization

**Struct.** **786- 1- AB** **ITS VEHICLE DETECTION SYSTEM** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
9 (Retrofit lowering device on existing pole) B=0

B= Detector Type
1 (Microwave)
2 (Video)
3 (Magnetic)
4 (Acoustic)
9 (Special) * Note: Requires prior approval of the ITS Office

**Notes** * Special may require Tech Spec and/or Plan Detail

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0786 1 11 | ITS VEHICLE DETECTION SYSTEM, F&I, MICROWAVE | EA | | 1/1/2010 | |
| 0786 1 12 | ITS VEHICLE DETECTION SYSTEM, F&I, VIDEO DETECTOR | EA | | 1/1/2010 | |
| 0786 1 13 | ITS VEHICLE DETECTION SYSTEM, F&I, MAGNETIC DETECTOR | EA | | 1/1/2010 | |
| 0786 1 19 | ITS VEHICLE DETECTION SYSTEM, F&I, SPECIAL | EA | T | 1/1/2010 | |
| 0786 1 31 | ITS VEHICLE DETECTION SYSTEM, INSTALL, MICROWAVE | EA | | 1/1/2010 | |
| 0786 1 39 | ITS VEHICLE DETECTION SYSTEM, INSTALL, SPECIAL | EA | T | 1/1/2010 | |
| 0786 1 41 | ITS VEHICLE DETECTION SYSTEM, RELOCATE, MICROWAVE | EA | | 1/1/2010 | |
| 0786 1 42 | ITS VEHICLE DETECTION SYSTEM, RELOCATE, VIDEO | EA | | 1/1/2010 | |
| 0786 1 49 | ITS VEHICLE DETECTION SYSTEM, RELOCATE, SPECIAL | EA | | 1/1/2010 | |
| 0786 1 51 | ITS VEHICLE DETECTION SYSTEM, ADJUST & MODIFY, MICROWAVE | EA | | 1/1/2010 | |

# BOE

## Basis of Estimates

*Chapter 18*

*Items 800 to 899*

State Specifications and Estimates Office
Estimating Systems Support Section

| 800- | MASS TRANSIT- RAIL ROAD | | |
|---|---|---|---|
| | **Unit** | **Accuracy** | **PlanQuantity?** |
| **Notes** | **Items 800 to 899: Mass Transit items removed due to lack of use. Item Structures restored upon request.** | | |
| **Details** | | | |
| **Related Items** | **Required** | **Recommended** | |
| **Design Forms and Documentation** | | | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book | | |
| **References** | **PPM Chapter** | | |
| | **Trns·port** | | |
| | **Other** | | |
| | **Standards** | | |
| | **Specifications** | | |
| | **T: Plan Details and/or Technical Specifications required** | | |
| | **Prep & Doc Manual Chapter(s)** | | |

***TRNS*PORT Category (DRAFT FIELD):*** 0900 Mass Transit

**Struct.** **800-** **MASS TRANSIT- RAIL ROAD**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| 823- 1A-BBB | SUBBALLAST | | |
|---|---|---|---|
| | **Unit** SF; M2 | **Accuracy** Square Foot; 1/10 Square Meter | **PlanQuantity?** no |
| **Notes** | | | |
| **Details** | This item is to be used for railroad applications only.<br><br>For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item. | | |
| **Related Items** | **Required** | **Recommended** | |
| **Design Forms and Documentation** | COMP 700-050-01: Area Computation and Contunuation<br>Locate in the plans. Summarize quantities by location in the computation book. | | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the computation book form. | | |

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 6, 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0900 Mass Transit

**Struct.** **823- 1A-BBB** **SUBBALLAST** **SF**

A =Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Modify)

BBB =
3 ( 3 in.)
4 ( 4 in.)
5 ( 5 in.)
6 ( 6 in.)
12 (12 in.)
NOTE: Open in one inch increments only

**Notes** Additional pay items opened upon request.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0823 11 12 | MASS TRANSIT- SUBBALLAST, F&I, 12 IN DEPTH | SF | T | 1/1/2010 | |

## 825-6AB-CDE CROSSOVER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This item is to be used for railroad applications only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0900 Mass Transit

**Struct.** **825-6AB-CDE** **CROSSOVER** **EA**

A =Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Modify)

B = Rail Size
1 (100 lb/yd)
2 (115 lb/yd)
3 (119 lb/yd)
4 (132 lb/yd)
5 (133 lb/yd)
6 (136 lb/yd)
7 (140 lb/yd)
8 (Special)

C = 1 (Right Hand)
2 (Left Hand)

D = Crossover Size
1 (No. 08)
2 (No. 10)
3 (No. 12)
4 (No. 14)
5 (No. 15)
6 (No. 16)
7 (No. 18)
8 (No. 20)

E = Tie Type
1 (Timber)
2 (Concrete)
3 (Steel)

**Notes** Additional pay items opened upon request.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

# BOE

## Basis of Estimates

*Chapter 19*

*Items 900 to 999*

State Specifications and Estimates Office
Estimating Systems Support Section

## 903-460- A TUNNEL CONSTRUCTION

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **This is a trial item; contact the Monitor prior to use.**

**Details** Intended for Lafayette St, Tallahassee, only. Valid for project 408049 only to be used in accordance with Tech Spec.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):***

**Struct.** **903-460- A** **TUNNEL CONSTRUCTION** **LF**

A= Type
1 (12' Diameter, F&I) LF
2 (Electrical Service for Tunnel Construction) LS
3 (Telephone Service for Tunnel Construction) LS

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 904-439- A SYNTHETIC SUBSURFACE DRAINAGE LAYER

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Monitor: Larry Jones, State Structures Office**

**Details** For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **904-439- A** **SYNTHETIC SUBSURFACE DRAINAGE LAYER** **SY**

A= sides covered by geotextile
1 (single sided)
2 (double sided)
Note: Standard is double sided

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0904439 2 | SYNTHETIC SUBSURFACE DRAINAGE LAYER,DOUBLE SIDED | SY | | 1/1/2010 | 12/31/2012 |

## 904-540- A HIGH TENSION CABLE BARRIER SYSTEM

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Monitor: David O'Hagan, State Roadway Design Engineer**

**Details** This is a trial item; contact the Monitor prior to use. Refer to Design Bulletin 07-08 for additional details.

Through 12/05: A=1 complete system included anchors.
Effective 1/2006: A=2 or 3 defines type of post system, to be used with A=4 end terminal.
Effective 6/2007: Reinstated A=1.

Effective 7/2010: Added A=5 and 6 for resetting existing cable system. This item is to be used only for existing systems removed for construction operations. Plan Details or Tech Specs must indicate that the system must be reset according to manufacturer's recommendations.
THE MONITOR WILL SELECT WHICH ITEM(S) are to be used on a given project, as well as advise when specific notes and/or details are to be added to the plans.

Use Miscellaneous Asphalt item for mow strip, if required in the plans.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** See Details Above

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **904-540- A** **HIGH TENSION CABLE BARRIER SYSTEM** **LF**

A= Type*
1 (System with anchors) LF
2 (Socketed Post System) LF
3 (Driven Post System) LF
4 (End Terminal) EA see details above
5 (Reset Existing System) LF see details above
6 (Reset Existing End Terminal) EA
10 (Relocate) LF

**Notes** *The Monitor will select which item(s) to use on a given project.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0904540 2 | HIGH TENSION CABLE BARRIER SYSTEM - SOCKETED POST | LF | T | 1/1/2010 | |
| 0904540 4 | HIGH TENSION CABLE BARRIER SYSTEM - END TERMINAL | EA | T | 1/1/2010 | |
| 0904540 5 | HIGH TENSION CABLE BARRIER SYSTEM - RESET EXISTING SYSTEM | LF | T | 7/1/2010 | |
| 0904540 6 | HIGH TENSION CABLE BARRIER SYSTEM - RESET EXISTING END TERMINAL | EA | T | 7/1/2010 | |
| 0904540 10 | HIGH TENSION CABLE BARRIER SYSTEM - RELOCATE | LF | T | 1/1/2010 | |

## 906-102- 1 AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

**Unit** ED **Accuracy** Each Day **PlanQuantity?** no

**Notes** **Monitor: Cheryl Adams**

**Details** This is a developmental item; designers must get approval from the monitor prior to use.

Limited Use- When approved, Construction must document effectiveness for FHWA evaluation of this experimental item. Coordinate all reports with the monitor.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended** 906-546- 1

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**D: Developmental Specification required.**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **906-102- 1** **AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) ED**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 906-173- A POLYURETHANE INJECTION

**Unit** LB; KG **Accuracy** Pound; Kilogram **PlanQuantity?** no

**Notes** **Monitor: Larry Jones, State Structures Design Office.**

**Details** This is a trial item; contact the Monitor prior to use.

To be used only with approval of State Structures Design Office, for specialty geotechnical work.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-06: Weight Measure or Liquid Volume Comp & Cont.

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

*TRNS*PORT Category (DRAFT FIELD):*

**Struct.** **906-173- A** **POLYURETHANE INJECTION** **LB**

A= location
1 (At Box Culvert)
2 (At Bridge Approach Slab)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0906173 1 | POLYURETHANE INJECTION AT BOX CULVERT/DRAINAGE PIPE | LB | T | 1/1/2010 | |
| 0906173 2 | POLYURETHANE INJECTION AT BRIDGE APPROACH SLAB | LB | T | 1/1/2010 | |

## 906-546- A TEMPORARY RAISED RUMBLE STRIP SET

**Unit** PS **Accuracy** Per Set **PlanQuantity?** yes

**Notes** **Valid through 12-31-10; replaced by 102-910 pay item.**
**Monitor: Cheryl Adams**

**Details** This is a trial item; contact the Monitor prior to use

For use with flagging operations on a two-lane, two way roadway. Four Sets are to be used, in each direction of the roadway, in advance of the flagging station. Refer to the specification for details.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**D: Developmental Specification required.**
**Prep & Doc Manual Chapter(s)**

*TRNS*PORT Category (DRAFT FIELD):* 0200 Roadway

**Struct.** **906-546- A** **TEMPORARY RAISED RUMBLE STRIP SET** **PS**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0906546 1 | RUMBLE STRIPS, RAISED, TEMPORARY | PS | | 1/1/2010 | |

## 906-548- 1 SOLDIER PILE WALL

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** no

**Notes** **This is a project-specific item.**

**Details** Contact the State Structures Design Office prior to requesting this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-01: Area Computation and Contunuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**
No additional form required; use plans summary or comp book
Record final quantity on the computation book form.

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):***

**Struct.** **906-548- 1** **SOLDIER PILE WALL** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0906548 1 | SOLDIER PILE WALL | SF | M | 1/1/2010 | 12/31/2010 |

## 906-548- 2 SOLDIER NAIL WALL

**Unit** SF; M2 **Accuracy** Square Foot; 1/10 Square Meter **PlanQuantity?** no

**Notes** **This is a project-specific item.**

**Details** Contact the State Structures Design Office prior to requesting this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**
COMP 700-050-01: Area Computation and Contunuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):***

**Struct.** **906-548- 2** **SOLDIER NAIL WALL** **SF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0906548 2 | SOIL NAIL WALL | SF | M | 1/1/2010 | 12/31/2010 |

## 906-702- AA WET WEATHER PAVEMENT MARKINGS, formerly INVERTED RIB PROFILE MARKINGS

**Unit** Mixed **Accuracy** Refer to item structure and details **PlanQuantity?** no

**Notes**

**Valid through 7-31-10; refer to Mandatory Specification change and 702 pay items. Monitor: Chester Henson**

**Details**

Pay Item structure updated with 10-19-09 developmental specification.

Note: Removal item must be used for removal of existing stripe, prior to installation of new 702 stripe. Convert length of existing stripe to square foot area.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

tabqsp: Signing & Pavement Marking Tabulation of Quantity Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0300 Signing and Pavement Markings

**Struct.** **906-702- AA** **WET WEATHER PAVEMENT MARKINGS, formerly INVERTED RIB PROFILE MARKINGS** **Mixed**

Verify structure with Monitor prior to opening items
AA= valid through 12-31-2009
31 (White, Skip, 6") GM
32 (Yellow, Skip, 6") GM
33 (White, Skip, 6") LF
34(Yellow, Skip, 6") LF
35 (White, Solid, 6") LF
36 (Yellow, Solid, 6") LF
37 (White, Solid, 6") NM
38 (Yellow, Solid, 6") NM

AAA= effective 1-2010 letting, with updated developmental specification
others, per specification.
17 (Removal of Existing Markings, prior to installation of Wet Weather Markings ONLY) SF
111 (Solid, White, 6") per net mile
131 (Solid, yellow, 6") per net mile

211 (Skip, White, 6") per gross mile
231 (Skip, yellow, 6") per gross mile

311 (Solid Wet Weather and Audible, White, 6"), per net mile
331 (Solid Wet Weather and Audible, Yellow, 6"), per net mile

411 (Skip Wet Weather and Audible, White, 6") per gross mile
431 (Skip Wet Weather and Audible, Yellow, 6") per gross mile

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**908-170- A** **DEEP SOIL MIXING**

**Unit** CY; M3 **Accuracy** 1/10 Cubic Yard; 1/10 Cubic Meter **PlanQuantity?** no

**Notes** **Monitor: Larry Jones, State Geotechnical Engineer**

**Details** Contact the State Structures Office for approval, prior to using this item.

This item is intended to be used for dry-method of mass soil mixing to stabilize organic subsoils and minimize the potential for future settlements.

The work includes mechanically blending the in-situ surface soils (muck) overlying limestone with a reagent binder to increase the soil strength, reduce settlement characteristics, and provide a stable soil surface for the roadway.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** SBEarthwork: Summary of Earthwork, or COMP 700-050-04: Volume Measure Items and Continuation

Locate in plans. Summarize quantities by location on summary sheet in the plans, or detail calculatiions in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):***

**Struct.** **908-170- A** **DEEP SOIL MIXING** **CY**

A= Method
1 (Dry)

**Notes** Valid only for project 220499-1-52-01. Contact Monitor for consideration on other projects

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0908170 1 | DEEP SOIL MIXING, DRY | CY | T | 1/1/2010 | |

## 908-333- 1 HIGH FRICTION SURFACE COURSE

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Monitor: Charles Holzschuher**

**Details** This is a developmental Item. Project specific approval required.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **908-333- 1** **HIGH FRICTION SURFACE COURSE** **SY**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0908333 1 | HIGH FRICTION SURFACE COURSE | SY | D | 1/1/2010 | 12/31/2011 |

## 908-350- A FIBER REINFORCED CONCRETE PAVEMENT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** yes

**Notes** **Monitor: Manny Uwaibi**

**Details** This is a monitored item. It may be used only with approval of the State Pavement Design Office.

Technical Specifications required to detail glass fiber reinforcement. Concrete pavement to be installed in accordance with Section 350, unless otherwise noted in the specifications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications** 350

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **908-350- A** **FIBER REINFORCED CONCRETE PAVEMENT** **SY**

A= Thickness
1 (11" Average)
2 (14" Average)
3 (8.5" Average)

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0908350 1 | FIBER REINFORCED CONCRETE PAVEMENT, 11" AVE THICKNESS | SY | M | 1/1/2010 | 12/31/2010 |
| 0908350 2 | FIBER REINFORCED CONCRETE PAVEMENT, 14" AVE THICKNESS | SY | M | 1/1/2010 | 12/31/2010 |
| 0908350 3 | FIBER REINFORCED CONCRETE PAVEMENT, 8.5" AVE THICKNESS | SY | M | 1/1/2010 | 12/31/2010 |

## 908-431- A PIPE LINER- SECTIONAL REPAIR

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **Monitors: Michael Shepard and Larry Ritchie**

**Details** Contact the State Drainage Office prior to use.

Box-to-Box repairs are normally preferred (use Item 431-). When a Sectional Repair is considered, coordinate with the State Drainage Office. New materials/methods may be recommended.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** dromrd: Drainage Optional Materials Tabulation

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **908-431- A** **PIPE LINER- SECTIONAL REPAIR** **LF**

A= Pipe Diameter Size Range
1 (0=-24")
2 (25-36")
3 (37-48")
4 (49-60")
5 (61" and greater)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 908-535- 1 MOVABLE BARRIER GATE

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):***

**Struct.** **908-535- 1** **MOVABLE BARRIER GATE** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0908535 1 | MOVEABLE BARRIER GATE | LS | T | 9/1/2008 | 2/1/2012 |

## 908-571- 1 TRANSITION MAT

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **Monitor: Larry Ritchie, State Construction Office**

**Details**

Contact the State Construction Office for approval, prior to using this item.

Transition Mat for scour and permanent erosion control.

See 530-79 for Plastic Cellular Confinement System for other drainage/erosion control applications.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-01: Area Computation and Contunuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **908-571- 1** **TRANSITION MAT** **SY**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 909-335- A MICRO-SURFACING FOR PAVEMENT PRESERVATION

**Unit** SY; M2 **Accuracy** Square Yard; Square Meter **PlanQuantity?** no

**Notes** **MONITOR: Manny Uwaibi, State Pavement Design Office.**
**Developmental Item**

**Details** Contact the State Pavement Design Office for approval, prior to using this item.

This item is a polymer-modified emulsion aggregate mixture, placed as a thin overlay, for the preservation of mildly distressed pavements and as a means to restore friction resistance to pavement.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-01: Area Computation and Contunuation
Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book
Record final quantity on the computation book form.

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**T: Plan Details and/or Technical Specifications required**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **909-335- A** **MICRO-SURFACING FOR PAVEMENT PRESERVATION** **SY**

A= Project Number
1 no number required

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0909335 1 | MICRO-SURFACING FOR PAVEMENT PRESERVATION | SY | D | 1/1/2010 | |
| 0909335 2 | MICRO-SURFACING- CRACK FILLING | LF | T | 1/1/2010 | |

## 910-425- 1 FLOATING MANHOLE FRAME AND COVER SYSTEM

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **Monitor: Paul Steinman, State Construction Engineer**

**Details** This is a monitored item, to be used only with approval of the State Construction Engineer. Coordinate specifications with Paul Steinman or David Wang.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **910-425- 1** **FLOATING MANHOLE FRAME AND COVER SYSTEM** **EA**

**Notes**

*The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.*

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0910425 1 | FLOATING MANHOLE FRAME AND COVER SYSTEM | EA | | 1/1/2010 | |

## 999- 2- LUMP SUM CONTRACT (ALTERNATIVE BIDDING)

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** no

**Notes**

**Details** See latest guidelines for Innovative Bidding practices.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** Contact Final Estimates

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **999- 2-** **LUMP SUM CONTRACT (ALTERNATIVE BIDDING)** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0999 2 | LUMP SUM CONTRACT, ALTERNATIVE BIDDING | LS | | 1/1/2010 | |

## 999- 16- PARTNERING (DO NOT BID)

**Unit** LS/LS **Accuracy** Lump Sum **PlanQuantity?** yes

**Notes**

**Details** The use of this pay item will be initiated by the District Construction Office. The purpose is to provide an amount of money to the contractor to pay for the cost of a partnering session(s). Designers will load the pay item and provide the cost to be overrun to the District Estimates Coordinator.
NOTE: Construction will advise the designer when to use this item. They will also provide the designer with the number of days and the cost per day.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References** **PPM Chapter**
**Trns·port**

**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** 11, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **999- 16-** **PARTNERING (DO NOT BID)** **LS/LS**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0999 16 | PARTNERING, DO NOT BID | LS | | 1/1/2010 | |

## 999- 20- DISPUTE REVIEW BOARD (DO NOT BID)

**Unit** DA **Accuracy** Day **PlanQuantity?** no

**Notes**

**Details**

The use of this pay item will be initiated by the District Construction Office. The purpose is to require a Dispute Resolution Board to be established for the project and to provide the contractor a specific amount of money to pay for the services of each of the three Board members. Designers will load the pay item and the number of days (meetings).
NOTE: Construction will advise the designer when to use this item. They will also provide the designer with the number of days (meetings), based on 1 meeting per month for the length of the contract. The cost has been hard coded at $3,300.00* as the unit price for this item. Only the Director of Construction can approve a change to this amount.
*Verify current amount with specification.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References**
**PPM Chapter**
**Trns·port**
**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)** 11, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **999- 20-** **DISPUTE REVIEW BOARD (DO NOT BID)** **DA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0999 20 | DISPUTES REVIEW BOARD, DO NOT BID | DA | | 1/1/2010 | |

## 999- 25- INITIAL CONTINGENCY AMOUNT (DO NOT BID)

**Unit** $ **Accuracy** Dollars **PlanQuantity?** no

**Notes**

**IMPORTANT: INITIAL CONTINGENCY TOTAL IS BASED ON PROPOSAL TOTAL, not individual project totals.**

**Details**

DESIGN: Use when requested by Construction, in accordance with the CPAM (Construction Project Administration Manual). The item will be loaded as "Participating" and the cost will be input by the District Estimates Coordinator. Load item in Roadway Category When a contract contains multiple projects, this item may be used on each project within the contract, if recommended by construction. Note that the totals listed in the CPAM are per PROPOSAL/CONTRACT, not per project.
Department Policy (per F. Simmons, 10-1-02): Include Initial Contingency Amount on all Design-Build Contracts.

CONSTRUCTION: Participating/Non-Participating payment will be determined by Construction, based on the item(s) of work.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)** Contact Final Estimates

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **999- 25-** **INITIAL CONTINGENCY AMOUNT (DO NOT BID)** **$**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0999 25 | INITIAL CONTINGENCY AMOUNT, DO NOT BID | LS | | 1/1/2010 | |

## 999-102- A SPEED AND LAW ENFORCEMENT OFFICER

**Unit** MH **Accuracy** Hour **PlanQuantity?** no

**Notes**

**Monitor: Cheryl Adams**
**A=Contract Type refers to the contract between FDOT and Law enforcement, NOT the type of Construction Contract.**

**Details**

This item is used by the Construction Engineer to provide uniformed traffic control officers, including marked law enforcement vehicles, to assist in controlling speed and enforcing traffic laws in the work zone. Officers should be actively involved in either directing traffic or reducing speeding and traffic violations present in our work zones.

Note: The type of construction contract and/or location for letting (Tallahassee or District letting) is not a factor in selecting the type of Law Enforcement contract. Contact your Project Manager to determine the available Law Enforcement Contract(s) available in your district.

Per the PPM, "The documentation for Speed and Law Enforcement Officer will be shown in the Computation Book only and there will be no reference made to these services in the plans, except as shown on the Summary of Pay Items Sheet." Refer to the PPM for calculation and documentation of this item.

**Related Items** **Required** **Recommended** 102- 14 (2012- 14)

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter** Vol 1, Ch 10

**Trns·port**

**Other**

**Standards**

**Specifications**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0200 Roadway

**Struct.** **999-102- A** **SPEED AND LAW ENFORCEMENT OFFICER** **MH**

A = Contract Type (Between FDOT and the Law Enforcement Agency)
1 = Central Office Statewide Contract
2 = District Contract

STATE FURNISHED; NON BID ITEM

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0999102 1 | SPEED & LAW ENFORCEMENT OFFICER, STATE FURNISHED, CENTRAL CONTRACT, NON BID ITEM | MH | | 1/1/2010 | |
| 0999102 2 | SPEED & LAW ENFORCEMENT OFFICER, STATE FURNISHED, DISTRICT CONTRACT, NON BID ITEM | MH | | 1/1/2010 | |

**9AA-BBB- CC** **SPECIAL, DEVELOPMENTAL, OR TRIAL PAY ITEMS: SECTION**

| | | | | | |
|---|---|---|---|---|---|
| | **Unit** | | **Accuracy** | **PlanQuantity?** | no |
| **Notes** | | | | | |
| **Details** | | | | | |
| **Related Items** | **Required** | | **Recommended** | | |
| **Design Forms and Documentation** | | | | | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book | | | | |
| **References** | **PPM Chapter** | | | | |
| | **Trns·port** | | | | |
| | **Other** | | | | |
| | **Standards** | | | | |
| | **Specifications** | | | | |
| | **Prep & Doc Manual Chapter(s)** | | | | |

***TRNS*PORT Category (DRAFT FIELD):*** 0000 Administrative

**Struct.** **9AA-BBB- CC** **SPECIAL, DEVELOPMENTAL, OR TRIAL PAY ITEMS: SECTION**

**Notes**
AA = Year of Development
BBB= Spec Book Section
CC = Sequence of New Item in Spec Book Section
01 = (First Trial Item for Year)
02 = (Second Trial Item for Year) Etc.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| **0000-DDD-AAA** | **GENERIC PAY ITEM** | | | | |
|---|---|---|---|---|---|
| | **Unit** | Mixed | **Accuracy** | Refer to item structure and details | **PlanQuantity?** no |
| **Notes** | | | | | |
| **Details** | Generic Items: Contact the State Specifications and Estimates Office prior to use. | | | | |
| **Related Items** | **Required** | | **Recommended** | | |
| **Design Forms and Documentation** | | | | | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book | | | | |
| **References** | **PPM Chapter** | | | | |
| | **Trns·port** | | | | |

**Other**
**Standards**
**Specifications**
**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0600 Landscaping

**Struct.** **0000-DDD-AAA** **GENERIC PAY ITEM** **Mixed**

DDD= Design Group
AAA= Item description, defined in plans with unit of measure

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 0000100 1 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM1 | ZZ | G | 1/1/2010 | |
| 0000100 2 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM2 | ZZ | G | 1/1/2010 | |
| 0000100 3 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 3 | ZZ | G | 1/1/2010 | |
| 0000100 4 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 4 | ZZ | G | 1/1/2010 | |
| 0000100 5 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 5 | ZZ | G | 1/1/2010 | |
| 0000100 6 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 6 | ZZ | G | 1/1/2010 | |
| 0000100 7 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 7 | ZZ | G | 1/1/2010 | |
| 0000100 8 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 8 | ZZ | G | 1/1/2010 | |
| 0000100 9 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 9 | ZZ | G | 1/1/2010 | |
| 0000100 10 | STRUCTURES DESIGN GROUP- GENERIC PAY ITEM 10 | ZZ | G | 1/1/2010 | |
| 0000200 1 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 1 | ZZ | G | 1/1/2010 | |
| 0000200 2 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 2 | ZZ | G | 1/1/2010 | |
| 0000200 3 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 3 | ZZ | G | 1/1/2010 | |
| 0000200 4 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 4 | ZZ | G | 1/1/2010 | |
| 0000200 5 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 5 | ZZ | G | 1/1/2010 | |
| 0000200 6 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 6 | ZZ | G | 1/1/2010 | |
| 0000200 7 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 7 | ZZ | G | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 0000200 8 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 8 | ZZ | G | 1/1/2010 |
| 0000200 9 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 9 | ZZ | G | 1/1/2010 |
| 0000200 10 | ROADWAY DESIGN GROUP- GENERIC PAY ITEM 10 | ZZ | G | 1/1/2010 |
| 0000300 1 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 1 | ZZ | G | 1/1/2010 |
| 0000300 2 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 2 | ZZ | G | 1/1/2010 |
| 0000300 3 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 3 | ZZ | G | 1/1/2010 |
| 0000300 4 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 4 | ZZ | G | 1/1/2010 |
| 0000300 5 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 5 | ZZ | G | 1/1/2010 |
| 0000300 6 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 6 | ZZ | G | 1/1/2010 |
| 0000300 7 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 7 | ZZ | G | 1/1/2010 |
| 0000300 8 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 8 | ZZ | G | 1/1/2010 |
| 0000300 9 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 9 | ZZ | G | 1/1/2010 |
| 0000300 10 | SIGNING AND PAVEMENT MARKING DESIGN GROUP- GENERIC PAY ITEM 10 | ZZ | G | 1/1/2010 |
| 0000400 1 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 1 | ZZ | G | 1/1/2010 |
| 0000400 2 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 2 | ZZ | G | 1/1/2010 |
| 0000400 3 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 3 | ZZ | G | 1/1/2010 |
| 0000400 4 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 4 | ZZ | G | 1/1/2010 |
| 0000400 5 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 5 | ZZ | G | 1/1/2010 |
| 0000400 6 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 6 | ZZ | G | 1/1/2010 |
| 0000400 7 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 7 | ZZ | G | 1/1/2010 |
| 0000400 8 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 8 | ZZ | G | 1/1/2010 |
| 0000400 9 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 9 | ZZ | G | 1/1/2010 |
| 0000400 10 | LIGHTING MARKING DESIGN GROUP- GENERIC PAY ITEM 10 | ZZ | G | 1/1/2010 |
| 0000500 1 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 1 | ZZ | G | 1/1/2010 |
| 0000500 2 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 2 | ZZ | G | 1/1/2010 |

| | | | | |
|---|---|---|---|---|
| 0000500 3 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 3 | ZZ | G | 1/1/2010 |
| 0000500 4 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 4 | ZZ | G | 1/1/2010 |
| 0000500 5 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 5 | ZZ | G | 1/1/2010 |
| 0000500 6 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 6 | ZZ | G | 1/1/2010 |
| 0000500 7 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 7 | ZZ | G | 1/1/2010 |
| 0000500 8 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 8 | ZZ | G | 1/1/2010 |
| 0000500 9 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 9 | ZZ | G | 1/1/2010 |
| 0000500 10 | SIGNALIZATION DESIGN GROUP- GENERIC PAY ITEM 10 | ZZ | G | 1/1/2010 |
| 0000600 1 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 1 | ZZ | G | 1/1/2010 |
| 0000600 2 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 2 | ZZ | G | 1/1/2010 |
| 0000600 3 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 3 | ZZ | G | 1/1/2010 |
| 0000600 4 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 4 | ZZ | G | 1/1/2010 |
| 0000600 5 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 5 | ZZ | G | 1/1/2010 |
| 0000600 6 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 6 | ZZ | G | 1/1/2010 |
| 0000600 7 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 7 | ZZ | G | 1/1/2010 |
| 0000600 8 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 8 | ZZ | G | 1/1/2010 |
| 0000600 9 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 9 | ZZ | G | 1/1/2010 |
| 0000600 10 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 10 | ZZ | G | 1/1/2010 |
| 0000600 11 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 11 | ZZ | G | 1/1/2010 |
| 0000600 12 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 12 | ZZ | G | 1/1/2010 |
| 0000600 13 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 13 | ZZ | G | 1/1/2010 |
| 0000600 14 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 14 | ZZ | G | 1/1/2010 |
| 0000600 15 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 15 | ZZ | G | 1/1/2010 |
| 0000600 16 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 16 | ZZ | G | 1/1/2010 |
| 0000600 17 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 17 | ZZ | G | 1/1/2010 |

| | | | | |
|---|---|---|---|---|
| 0000600 18 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 18 | ZZ | G | 1/1/2010 |
| 0000600 19 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 19 | ZZ | G | 1/1/2010 |
| 0000600 20 | LANDSCAPE DESIGN GROUP- GENERIC PAY ITEM 20 | ZZ | G | 1/1/2010 |
| 0000700 1 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 1 | ZZ | G | 1/1/2010 |
| 0000700 2 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 2 | ZZ | G | 1/1/2010 |
| 0000700 3 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 3 | ZZ | G | 1/1/2010 |
| 0000700 4 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 4 | ZZ | G | 1/1/2010 |
| 0000700 5 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 5 | ZZ | G | 1/1/2010 |
| 0000700 6 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 6 | ZZ | G | 1/1/2010 |
| 0000700 7 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 7 | ZZ | G | 1/1/2010 |
| 0000700 8 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 8 | ZZ | G | 1/1/2010 |
| 0000700 9 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 9 | ZZ | G | 1/1/2010 |
| 0000700 10 | UTILITIES DESIGN GROUP- GENERIC PAY ITEM 10 | ZZ | G | 1/1/2010 |

# BOE

## Basis of Estimates

*Chapter 20*

*Items 1000 to 1999*

*Utilities (JPA) use only*

State Specifications and Estimates Office
Estimating Systems Support Section

| 1000- AA- | UTILITY WORK | | | | |
|---|---|---|---|---|---|
| | **Unit** | LS/LS | **Accuracy** | Lump Sum | **PlanQuantity?** yes |

**Notes**

**Details**

This pay item for Utility JPA projects Only. Tech Specs are required for all work to be completed.

Coordinate the use of this item with District Utilities Office. This is a LS project pay item; do NOT use separate pay items along with the LS item for any given JPA. Payment covers all work and materials for the entire utility project number. (Note: The Roadway project(s) may be either LS or standard pay items. Each utility project number may be either LS or standard pay items.)

Additional guidance: As with roadway projects, Utility LS projects should only be considered when the work to be completed (including known quantities) is clearly defined in the plans. LS projects should not be considered for unknown conditions.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

sumqrd: Roadway Summary of Quantities Sheet

Locate in plans. Summarize quantities by location on summary sheet in the plans.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1000- AA-** **UTILITY WORK** **LS/LS**

AA =
5 ( Sewer)
6 ( Water)
7 ( Power)
8 (Communications)
9 (Fuel)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1000 5 | UTILITY WORK- JPA ONLY, SEWER | LS | T | 1/1/2010 | 2/29/2012 |
| 1000 6 | UTILITY WORK- JPA ONLY, WATER | LS | T | 1/1/2010 | 2/29/2012 |
| 1000 7 | UTILITY WORK- JPA ONLY, POWER | LS | T | 1/1/2010 | 2/29/2012 |

## 1050- 1A-BCD UTILITY PIPE

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes** **B=9 (Special) valid through 6-30-09; select item for material needs**

**Details** This pay item for Utility JPA projects Only

For new pipe, payment includes anchors & incidentals, as well as connections to existing systems; detail all work in the plans or specifications. HISTORICAL PRICES vary considerably based on location, depth, installation length, specification requirements (sanitizing, leak detection) and other factors. Consult the maintaining agency for guidance on unit prices.

For pipe up to 7.9" diameter, payment includes all fittings.
Material requirements and pressure ratings must be included in the specifications.

For Casings, payment includes vents/air release valves.

For Plug/Place out of service, Specs/Details should indicate that payment includes all work & materials necessary. Plans should indicate length of pipe to be filled (payment length). For pipe up to 4", caps may be used, as allowed by the utility; this is an "each" item, valid only for A=8 (plug/place out of service). Caps must be detailed in the contract documents.

Tech Specs are required for all items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct. 1050- 1A-BCD UTILITY PIPE LF**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC=00
4 (Relocate) BC=00
5 (Adjust /Modify) BC=00
6 (Remove & Dispose) BC=00, Note: Contractor takes ownership
7 (Remove & Stockpile/Salvage) BC=00, Note: DOT/maintaining agency retains ownership
8 (Plug & Place out of Service) BC=00 Note: Utility Retains Ownership. See units of measure below
9 (Temporary Pipe)

B=Material
1 (Concrete)
2 (PVC)
3 (PE)
4 (DI/CI)
5 (Steel)
9 (Special) valid through 6-30-09; material type needed

C= Application
1 (Casing/Conduit)
2 (Water/Sewer)
3 (Gas)
4 (Fuel Transmission)

D= Size or Equivalent Diameter
Sizes up to 7.9" includes the cost of all fittings
0 (Cap for pipe up to 4") EA, valid only for A=8
4 (8.0 -19.9")
5 (20.0 - 49.9")
6 (50.0" or larger)

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1050 11124 | UTILITY PIPE, F&I, CONCRETE, WATER / SEWER, 8 -19.9" | LF | T | 1/1/2010 | |
| 1050 11125 | UTILITY PIPE, F&I, CONCRETE, WATER / SEWER, 20 -49.9" | LF | T | 1/1/2010 | |
| 1050 11211 | UTILITY PIPE, F&I, PVC, CASING / CONDUIT, 0-1.9" | LF | T | 1/1/2010 | |
| 1050 11212 | UTILITY PIPE, F&I, PVC, CASING / CONDUIT, 2-4.9" | LF | T | 1/1/2010 | |
| 1050 11213 | UTILITY PIPE, F&I, PVC, CASING / CONDUIT, 5.0-7.9" | LF | T | 1/1/2010 | |
| 1050 11214 | UTILITY PIPE, F&I, PVC, CASING / CONDUIT, 8-19.9" | LF | T | 1/1/2010 | |
| 1050 11215 | UTILITY PIPE, F&I, PVC, CASING / CONDUIT, 20.0-49.9" | LF | T | 1/1/2010 | |
| 1050 11221 | UTILITY PIPE, F&I, PVC, WATER / SEWER, 0 - 1.9" | LF | T | 1/1/2010 | |
| 1050 11222 | UTILITY PIPE, F&I, PVC, WATER / SEWER, 2 - 4.9" | LF | T | 1/1/2010 | |

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|---|---|---|---|---|
| 1050 11223 | UTILITY PIPE, F&I, PVC, WATER / SEWER, 5 - 7.9" | LF | T | 1/1/2010 |
| 1050 11224 | UTILITY PIPE, F&I, PVC, WATER / SEWER, 8 - 19.9" | LF | T | 1/1/2010 |
| 1050 11225 | UTILITY PIPE, F&I, PVC, WATER / SEWER, 20 - 40.9" | LF | T | 1/1/2010 |
| 1050 11312 | UTILITY PIPE, F&I, PE, CASING/CONDUIT, 2.0 - 4.9" | LF | T | 1/1/2010 |
| 1050 11313 | UTILITY PIPE, F&I, PE, CASING/CONDUIT, 5.0 - 7.9" | LF | T | 1/1/2010 |
| 1050 11321 | UTILITY PIPE, F&I, PE, WATER / SEWER, 0 - 1.9" | LF | T | 1/1/2010 |
| 1050 11322 | UTILITY PIPE, F&I, PE, WATER / SEWER, 2 - 4.9" | LF | T | 1/1/2010 |
| 1050 11323 | UTILITY PIPE, F&I, PE, WATER / SEWER, 5 - 7.9" | LF | T | 1/1/2010 |
| 1050 11324 | UTILITY PIPE, F&I, PE, WATER / SEWER, 8 - 19.9" | LF | T | 1/1/2010 |
| 1050 11325 | UTILITY PIPE, F&I, PE, WATER / SEWER, 20 - 49.9" | LF | T | 1/1/2010 |
| 1050 11412 | UTILITY PIPE, F&I, DI/CI, CASING/CONDUIT, 2-4.9" | LF | T | 1/1/2010 |
| 1050 11414 | UTILITY PIPE, F&I, DI/CI, CASING/CONDUIT, 8 - 19.9" | LF | T | 1/1/2010 |
| 1050 11415 | UTILITY PIPE, F&I, DI/CI, CASING/CONDUIT, 20 - 49.9" | LF | T | 1/1/2010 |
| 1050 11422 | UTILITY PIPE, F&I, DI/CI, WATER / SEWER, 2 - 4.9" | LF | T | 1/1/2010 |
| 1050 11423 | UTILITY PIPE, F&I, DI/CI, WATER / SEWER, 5 - 7.9" | LF | T | 1/1/2010 |
| 1050 11424 | UTILITY PIPE, F&I, DI/CI, WATER / SEWER, 8 - 19.9" | LF | T | 1/1/2010 |
| 1050 11425 | UTILITY PIPE, F&I, DI/CI, WATER / SEWER, 20 - 49.9" | LF | T | 1/1/2010 |
| 1050 11432 | UTILITY PIPE, F&I, DI / CI, GAS, 2-4.9" | LF | T | 1/1/2010 |
| 1050 11433 | UTILITY PIPE, F&I, DI / CI, GAS, 5-7.9" | LF | T | 1/1/2010 |
| 1050 11434 | UTILITY PIPE, F&I, DI / CI, GAS, 8-19.9" | LF | T | 1/1/2010 |
| 1050 11512 | UTILITY PIPE, F&I, STEEL, CASING / CONDUIT, 2.0-4.9" | LF | T | 1/1/2010 |
| 1050 11513 | UTILITY PIPE, F&I, STEEL, CASING / CONDUIT, 5-7.9" | LF | T | 1/1/2010 |
| 1050 11514 | UTILITY PIPE, F&I, STEEL, CASING / CONDUIT, 8.0-19.9" | LF | T | 1/1/2010 |
| 1050 11515 | UTILITY PIPE, F&I, STEEL, CASING / CONDUIT, 20.0-49.9" | LF | T | 1/1/2010 |
| 1050 11921 | UTILITY PIPE, F&I, SPECIAL, WATER / SEWER, 0-1.9" | LF | T | 1/1/2010 |
| 1050 11922 | UTILITY PIPE, F&I, SPECIAL, WATER / SEWER, 2 - 4.9" | LF | T | 1/1/2010 |

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|---|---|---|---|---|
| 1050 11924 | UTILITY PIPE, F&I, SPECIAL MATERIAL, WATER / SEWER, 8 -19.9" | LF | T | 1/1/2010 |
| 1050 11925 | UTILITY PIPE, F&I, SPECIAL MATERIAL, WATER / SEWER, 20-49.9" | LF | T | 1/1/2010 |
| 1050 11931 | UTILITY PIPE, F&I, SPECIAL, GAS, 0-1.9" | LF | T | 1/1/2010 |
| 1050 13002 | UTILITY PIPE, INSTALL, 2-4.9" | LF | T | 1/1/2010 |
| 1050 13003 | UTILITY PIPE, INSTALL, 5-7.9" | LF | T | 1/1/2010 |
| 1050 13004 | UTILITY PIPE, INSTALL, 8-19.9" | LF | T | 1/1/2010 |
| 1050 14004 | UTILITY PIPE, RELOCATE, 8-19.9" | LF | T | 1/1/2010 |
| 1050 15002 | UTILITY PIPE, ADJUST/MODIFY, 2 - 4.9" | LF | T | 1/1/2010 |
| 1050 15003 | UTILITY PIPE, ADJUST/MODIFY, 5 - 7.9" | LF | T | 1/1/2010 |
| 1050 15004 | UTILITY PIPE, ADJUST/MODIFY, 8 - 19.9" | LF | T | 1/1/2010 |
| 1050 16 | UTILITY PIPE, REMOVE & DISPOSE | LF | T | 1/1/2010 |
| 1050 16001 | UTILITY PIPE,REMOVE & DISPOSE, 0 - 1.9" | LF | T | 1/1/2010 |
| 1050 16002 | UTILITY PIPE,REMOVE & DISPOSE, 2-4.9" | LF | T | 1/1/2010 |
| 1050 16003 | UTILITY PIPE,REMOVE & DISPOSE, 5-7.9" | LF | T | 1/1/2010 |
| 1050 16004 | UTILITY PIPE,REMOVE & DISPOSE, 8-19.9" | LF | T | 1/1/2010 |
| 1050 16005 | UTILITY PIPE,REMOVE & DISPOSE & DISPOSE, 20-49.9" | LF | T | 1/1/2010 |
| 1050 16006 | UTILITY PIPE,REMOVE & DISPOSE & DISPOSE, 50" OR LARGER | LF | T | 1/1/2010 |
| 1050 17004 | UTILITY PIPE,REMOVE & STOCKPILE/SALVAGE, 8-19.9" | LF | T | 1/1/2010 |
| 1050 17005 | UTILITY PIPE,REMOVE & STOCKPILE/SALVAGE, 20-49.9" | LF | T | 1/1/2010 |
| 1050 18000 | UTILITY PIPE,PLUG & PLACE OUT OF SERVICE, CAP FOR UP TO 4" DIAMETER PIPE | EA | T | 1/1/2010 |
| 1050 18001 | UTILITY PIPE,PLUG & PLACE OUT OF SERVICE, 0- 1.9" | LF | T | 1/1/2010 |
| 1050 18002 | UTILITY PIPE,PLUG & PLACE OUT OF SERVICE, 2- 4.9" | LF | T | 1/1/2010 |
| 1050 18003 | UTILITY PIPE,PLUG & PLACE OUT OF SERVICE, 5- 7.9" | LF | T | 1/1/2010 |
| 1050 18004 | UTILITY PIPE,PLUG & PLACE OUT OF SERVICE, 8-19.9" | LF | T | 1/1/2010 |
| 1050 18005 | UTILITY PIPE,PLUG & PLACE OUT OF SERVICE, 20-49.9" | LF | T | 1/1/2010 |
| 1050 19222 | UTILITY PIPE, TEMPORARY, PVC, WATER/SEWER ,2-4.9" | LF | T | 1/1/2010 |
| 1050 19223 | UTILITY PIPE, TEMPORARY, PVC, WATER/SEWER ,5-7.9" | LF | T | 1/1/2010 |
| 1050 19224 | UTILITY PIPE, TEMPORARY, PVC, WATER/SEWER, 8-19.9" | LF | T | 1/1/2010 |
| 1050 19321 | UTILITY PIPE, TEMPORARY, PE, WATER/SEWER ,0-1.9" | LF | T | 1/1/2010 |

## 1055- 1A-BCD UTILITY FITTINGS

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes** **B=9 (Special) valid through 6-30-09; select item for material needs**

**Details** This pay item for Utility JPA projects Only

For pipe up to 7.9" diameter, payment includes all fittings.
Material requirements and pressure ratings to be included in the specifications.

Tech Specs are required for all items.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1055- 1A-BCD** **UTILITY FITTINGS** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BCD=blank
4 (Relocate) BCD=blank
5 (Adjust /Modify) BCD=blank
6 (Remove & Dispose) BCD=blank, Note: Contractor takes ownership
7 (Remove & Stockpile/Salvage) BCD=blank, Note: DOT/maintaining agency retains ownership
8
9 OPEN Note: May be defined in item structure as Special, Rehab, etc.

B=Material
1 (Concrete)
2 (PVC)
3 (PE)
4 (DI/CI)
5 (Steel)
9 (Special) valid through 6-30-09; material type needed

C= Fitting Type

1 (Elbow)
2 (Tee)
3 (Reducer)
4 (Union)
5 (Cap/Plug)
6 (Y)
7 (Cleanout)
9 (Special)*

D= Size or Equivalent Diameter
Sizes up to 7.9" includes the cost of all fittings
4 (8.0 -19.9")
5 (20.0 - 49.9")
6 (50.0" or larger)

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1055 11214 | UTILITY FITTINGS, F&I, PVC, ELBOW, 8.0-19.9" | EA | T | 1/1/2010 | |
| 1055 11215 | UTILITY FITTINGS, F&I, PVC, ELBOW, 20.0-49.9" | EA | T | 1/1/2010 | |
| 1055 11224 | UTILITY FITTINGS, F&I, PVC, TEE, 8.0-19.9" | EA | T | 1/1/2010 | |
| 1055 11234 | UTILITY FITTINGS, F&I, PVC, REDUCER, 8.0-19.9" | EA | T | 1/1/2010 | |
| 1055 11244 | UTILITY FITTINGS, F&I, PVC, UNION, 8.0-19.9" | EA | T | 1/1/2010 | |
| 1055 11254 | UTILITY FITTINGS, F&I, PVC, CAP/PLUG, 8 - 19.9" | EA | T | 1/1/2010 | |
| 1055 11264 | UTILITY FITTINGS, F&I, PVC, Y FITTING, 8 - 19.9" | EA | T | 1/1/2010 | |
| 1055 11273 | UTILITY FITTINGS, F&I, PVC, CLEANOUT, | EA | T | 1/1/2010 | |
| 1055 11274 | UTILITY FITTINGS, F&I, PVC, CLEANOUT, 8 - 19.9" | EA | T | 1/1/2010 | |
| 1055 11275 | UTILITY FITTINGS, F&I, PVC, CLEANOUT, 20 - 49.9" | EA | T | 1/1/2010 | |
| 1055 11295 | UTILITY FITTINGS, F&I, PVC, SPECIAL, 20 - 49.9" | EA | T | 1/1/2010 | |
| 1055 11314 | UTILITY FITTINGS, F&I, PE, ELBOW, 8 - 19.9" | EA | T | 1/1/2010 | |
| 1055 11414 | UTILITY FITTINGS, F&I, DI/CI, ELBOW, 8 - 19.9" | EA | T | 1/1/2010 | |
| 1055 11415 | UTILITY FITTINGS, F&I, DI/CI, ELBOW, 20 - 49.9" | EA | T | 1/1/2010 | |
| 1055 11424 | UTILITY FITTINGS, F&I, DI/CI, TEE, 8 - 19.9" | EA | T | 1/1/2010 | |
| 1055 11425 | UTILITY FITTINGS, F&I, DI/CI, TEE, 20 - 49.9" | EA | T | 1/1/2010 | |
| 1055 11434 | UTILITY FITTINGS, F&I, DI/CI, REDUCER, 8 - 19.9" | EA | T | 1/1/2010 | |
| 1055 11435 | UTILITY FITTINGS, F&I, DI/CI, REDUCER, 20 - 49.9" | EA | T | 1/1/2010 | |
| 1055 11444 | UTILITY FITTINGS, F&I, DI/CI, UNION, 8 - 19.9" | EA | T | 1/1/2010 | |

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|---|---|---|---|---|
| 1055 11445 | UTILITY FITTINGS, F&I, DI/CI, UNION, 20 - 49.9" | EA | T | 1/1/2010 |
| 1055 11452 | UTILITY FITTINGS, F&I, DI/CI, CAP/PLUG | EA | T | 1/1/2010 |
| 1055 11453 | UTILITY FITTINGS, F&I, DI/CI, CAP/PLUG | EA | T | 1/1/2010 |
| 1055 11454 | UTILITY FITTINGS, F&I, DI/CI, CAP/PLUG, 8 - 19.9" | EA | T | 1/1/2010 |
| 1055 11455 | UTILITY FITTINGS, F&I, DI/CI, CAP / PLUG, 20 - 49.9" | EA | T | 1/1/2010 |
| 1055 11464 | UTILITY FITTINGS, F&I, DI/CI, Y, 8 -19.9" | EA | T | 1/1/2010 |
| 1055 11465 | UTILITY FITTINGS, F&I, DI/CI, Y, 20 - 49.9" | EA | T | 1/1/2010 |
| 1055 11494 | UTILITY FITTINGS, F&I, DI/CI, SPECIAL, 8.0-19.9" | EA | T | 1/1/2010 |
| 1055 11495 | UTILITY FITTINGS, F&I, DI/CI, SPECIAL, 20.0-49.9" | EA | T | 1/1/2010 |
| 1055 11514 | UTILITY FITTINGS, F&I, STEEL, ELBOW, 8.0-19.9" | EA | T | 1/1/2010 |
| 1055 11555 | UTILITY FITTINGS, F&I, STEEL, CAP / PLUG, 20 - 49.9" | EA | T | 1/1/2010 |
| 1055 11995 | UTILITY FITTINGS, F&I, SPECIAL MATERIAL, SPECIAL FITTING, 20-49.9" | EA | T | 1/1/2010 |
| 1055 13 | UTILITY FITTINGS, INSTALL | EA | T | 1/1/2010 |
| 1055 15 | UTILITY FITTINGS, ADJUST & MODIFY | EA | T | 1/1/2010 |
| 1055 16 | UTILITY FITTINGS, REMOVE & DISPOSAL | EA | T | 1/1/2010 |

## 1060- 1A-BCD UTILITY STRUCTURE- BELOW GROUND

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item for Utility JPA projects Only
DO NOT USE for Milling adjustments; see 425 items for adjusting manholes & utility valves
For Utility Structures BELOW ground.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1060- 1A-BCD** **UTILITY STRUCTURE- BELOW GROUND** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify) BCD= blank See detail information for milling adjustments
6 (Remove & Dispose) BCD= blank Note: Contractor takes ownership
7 (Remove & Stockpile/Salvage) BCD= blank Note: DOT/maintaining agency retains ownership

B=Utility
1 (Electrical /Communications)
2 (Water/Sewer)
3 (Other)*

C= Volume
1 (0-80 FT3)
2 (>80 FT3)

D=Depth
1 (0-6')
2 (6.1-12')
3 (>12')

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1060 11111 | UTILITY STRUCTURE, BELOW GROUND, F&I, ELECTRICAL COMMUNIC, 0 - 80 FT3, 0 - 6' | EA | T | 1/1/2010 | |
| 1060 11211 | UTILITY STRUCTURE, BELOW GROUND, F&I, WATER/SEWER, 0 - 80 FT3, 0 - 6' | EA | T | 1/1/2010 | |
| 1060 11212 | UTILITY STRUCTURE, BELOW GROUND, F&I, WATER/SEWER, 0 - 80 FT3, 6.1 - 12' | EA | T | 1/1/2010 | |
| 1060 11213 | UTILITY STRUCTURE, BELOW GROUND, F&I, WATER/SEWER, 0 - 80 FT3, >12' | EA | T | 1/1/2010 | |
| 1060 11221 | UTILITY STRUCTURE, BELOW GROUND, F&I, WATER / SEWER > 80 FT3, 0 - 6' | EA | T | 1/1/2010 | |
| 1060 11222 | UTILITY STRUCTURE, BELOW GROUND, F&I, WATER / SEWER > 80 FT3, 6.1 - 12' | EA | T | 1/1/2010 | |
| 1060 11223 | UTILITY STRUCTURE, BELOW GROUND, F&I, WATER / SEWER > 80 FT3, > 12' | EA | T | 1/1/2010 | |
| 1060 13 | UTILITY STRUCTURE, BELOW GROUND, INSTALL | EA | T | 1/1/2010 | |
| 1060 15 | UTILITY STRUCTURE, BELOW GROUND, ADJUST/MODIFY | EA | T | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 1060 16 | UTILITY STRUCTURE, BELOW GROUND, REMOVE&DISPOSE CONTRACTOR TAKES OWNERSHIP | EA | T | 1/1/2010 |
| 1060 17 | UTILITY STRUCTURE, BELOW GROUND, REMOVE/STOCKPILE/ SALVAGE, DOT/OTHER AGENCY RETAINS OWNERSHIP | EA | T | 1/1/2010 |
| 1060 19222 | UTILITY STRUCTURE, BELOW GROUND, REHAB, WATER/SEWER > 80 FT3, 6.1-12' DEEP | EA | T | 1/1/2010 |
| 1060 21 20 | UTILITY STRUCTURE- ABOVE GROUND, 1.1-3 CY PAD, WITHOUT COVER | EA | T | 1/1/2010 |
| 1060 25 | UTILITY STRUCTURE, ABOVE GROUND, ADJUST & MODIFY | EA | T | 1/1/2010 |

## 1060- 2A- BC UTILITY STRUCTURE- ABOVE GROUND

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item for Utility JPA projects Only
For Utility Structures ABOVE ground.
Calculate pad volume as the length x width x depth of concrete. Covers are for non-electrical applications, aesthetic or weather enclosures. Material requirements to be included in the specifications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1060- 2A- BC** **UTILITY STRUCTURE- ABOVE GROUND** **EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)

3 (Install)
4 (Relocate)
5 (Adjust /Modify) BCD= blank
6 (Remove & Dispose) BCD= blank Note: Contractor takes ownership
7 (Remove & Stockpile/Salvage) BCD= blank Note: DOT/maintaining agency retains ownership

B=Pad Volume
1 (0-1 YD3)
2 (1.1-3 YD3)
3 (>3 YD3)

C=Cover
0 (without cover)
1 (with cover)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

## 1080- 1A-BCC UTILITY FIXTURES

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item for Utility JPA projects Only
Additional fixtures to be added as needed. Submit Request through District Estimates Office.
Tabulate all items in the plans.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1080- 1A-BCC** **UTILITY FIXTURES** **EA**

A= Operation

1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate) BCC= blank
5 (Adjust /Modify) BCC= blank
6 (Remove & Dispose) Note: Contractor takes ownership, BCC= blank
7 (Remove & Stockpile/Salvage) Note: DOT/maintaining agency retains ownership, BCC= blank
8
9 OPEN Note: May be defined in item structure as Special, Rehab, etc.

B= Size or Equivalent Diameter
1 (0 - 1.9")*
2 (2.0 - 4.9")*
3 (5.0 - 7.9")*
4 (8.0 -19.9")
5 (20.0 - 49.9")
6 (50.0" or larger)
*NOTE: Fittings for pipe sizes up to 8" are included in the cost of the pipe. Fixtures, any size, may be paid under this item.

CC= Fixture
1 (Valve/Meter Box)
2 (Backflow Assembly)
3 (Tapping Saddle/Sleeve)
4 (Valve Assembly)
5 (Blowoff Assembly)
6 (VAC/AIR Assembly)
7 (Line Stop Assembly)
8 (Mechanical Joint Separator)
9 (Mechanical Joint Restraint)
10… submit request to expand structure
Note: CC list to be expanded as needed.

## Notes

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1080 11101 | UTILITY FIXTURES, F&I, 0 - 1.9", VALVE/METER BOX | EA | T | 1/1/2010 | |
| 1080 11102 | UTILITY FIXTURES, F&I, 0 - 1.9", BACKFLOW ASSEMBLY | EA | T | 1/1/2010 | |
| 1080 11103 | UTILITY FIXTURES, F&I, 0 - 1.9", TAPPING SADDLE / SLEEVE | EA | T | 1/1/2010 | |
| 1080 11104 | UTILITY FIXTURES, F&I, 0 - 1.9", VALVE ASSEMBLY | EA | T | 1/1/2010 | |
| 1080 11105 | UTILITY FIXTURES, F&I, 0-1.9", BLOWOFF ASSEMBLY | EA | T | 1/1/2010 | |
| 1080 11106 | UTILITY FIXTURES, F&I, 0 - 1.9", VAC / AIR ASSEMBLY | EA | T | 1/1/2010 | |
| 1080 11107 | UTILITY FIXTURES, F&I, 0 - 1.9", LINE STOP ASSEMBLY | EA | T | 1/1/2010 | |
| 1080 11201 | UTILITY FIXTURES, F&I, 2-4.9", VALVE/METER BOX | EA | T | 1/1/2010 | |
| 1080 11202 | UTILITY FIXTURES, F&I, 2 - 4.9", BACKFLOW ASSEMBLY | EA | T | 1/1/2010 | |

| | | | | |
|---|---|---|---|---|
| 1080 11203 | UTILITY FIXTURES, F&I, 2-4.9", TAPPING SADDLE/SLEEVE | EA | T | 1/1/2010 |
| 1080 11204 | UTILITY FIXTURES, F&I, 2-4.9", VALVE ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11205 | UTILITY FIXTURES, F&I, 2-4.9", BLOWOFF ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11206 | UTILITY FIXTURES, F&I, 2-4.9", VAC/AIR ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11207 | UTILITY FIXTURES, F&I, 2-4.9", LINE STOP ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11209 | UTILITY FIXTURES, F&I, 2-4.9", MECHANICAL JOINT RESTRAINT | EA | T | 1/1/2010 |
| 1080 11301 | UTILITY FIXTURES, F&I, 5.0 - 7.9", VALVE/METER BOX | EA | T | 1/1/2010 |
| 1080 11302 | UTILITY FIXTURES, F&I, 5.0 - 7.9", BACKFLOW ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11303 | UTILITY FIXTURES, F&I, 5.0 - 7.9", TAPPING SADDLE/SLEEVE | EA | T | 1/1/2010 |
| 1080 11304 | UTILITY FIXTURES, F&I, 5.0 - 7.9", VALVE ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11305 | UTILITY FIXTURES, F&I, 5.0 - 7.9", BLOWOFF ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11306 | UTILITY FIXTURES, F&I, 5.0 - 7.9", VAC/AIR ASSEMBLEY | EA | T | 1/1/2010 |
| 1080 11307 | UTILITY FIXTURES, F&I, 5-7.9", LINE STOP ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11309 | UTILITY FIXTURES, F&I, 5-7.9", MECHANICAL JOINT RESTRAINT | EA | T | 1/1/2010 |
| 1080 11401 | UTILITY FIXTURES, F&I, 8.0 - 19.9", VALVE METER BOX | EA | T | 1/1/2010 |
| 1080 11402 | UTILITY FIXTURES, F&I, 8.0 - 19.9", BACKFLOW ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11403 | UTILITY FIXTURES, F&I, 8.0-19.9", TAPPING SADDLE/SLEEVE | EA | T | 1/1/2010 |
| 1080 11404 | UTILITY FIXTURES, F&I, 8.0-19.9", VALVE ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11405 | UTILITY FIXTURES, F&I, 8.0-19.9", BLOWOFF ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11406 | UTILITY FIXTURES, F&I, 8.0-19.9", VAC/AIR ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11407 | UTILITY FIXTURES, F&I, 8-19.9", LINE STOP ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11408 | UTILITY FIXTURES, F&I, 8-19.9", MJS ADAPTER | EA | T | 1/1/2010 |
| 1080 11409 | UTILITY FIXTURES, F&I, 8-19.9", MECHANICAL JOINT RESTRAINT | EA | T | 1/1/2010 |
| 1080 11501 | UTILITY FIXTURES, F&I, 20-49.9", VALVE/METER BOX | EA | T | 1/1/2010 |
| 1080 11502 | UTILITY FIXTURES, F&I, 20-49.9", BACKFLOW ASSEMBLY | EA | T | 1/1/2010 |

| | | | | |
|---|---|---|---|---|
| 1080 11503 | UTILITY FIXTURES, F&I, 20-49.9", TAPPING SADDLE/SLEEVE | EA | T | 1/1/2010 |
| 1080 11504 | UTILITY FIXTURES, F&I, 20-49.9", VALVE ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11506 | UTILITY FIXTURES, F&I, 20-49.9", VAC/AIR ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11507 | UTILITY FIXTURES, F&I, 20-49.9", LINE STOP ASSEMBLY | EA | T | 1/1/2010 |
| 1080 11509 | UTILITY FIXTURES, F&I, 20-49.9", MECHANICAL JOINT RESTRAINT | EA | T | 1/1/2010 |
| 1080 13101 | UTILITY FIXTURES, INSTALL, 0 - 1.9", VALVE/METER BOX | EA | T | 1/1/2010 |
| 1080 13504 | UTILITY FIXTURES, INSTALL, 20-49.9", VALVE ASSEMBLY | EA | T | 1/1/2010 |
| 1080 14 | UTILITY FIXTURES, RELOCATE | EA | T | 1/1/2010 |
| 1080 15 | UTILITY FIXTURES, ADJUST & MODIFY | EA | T | 1/1/2010 |
| 1080 16 | UTILITY FIXTURES, REMOVE & DISPOSE | EA | T | 1/1/2010 |
| 1080 16401 | UTILITY FIXTURES, REMOVE & DISPOSE,8 - 19.9", VALVE / METER BOX | EA | T | 1/1/2010 |
| 1080 17 | UTILITY FIXTURES, REMOVE, STOCKPILE / SALVAGE | EA | T | 1/1/2010 |
| 1080 19408 | UTILITY FIXTURES, SPECIAL, 8-19.9", MJS ADAPTER | EA | T | 1/1/2010 |
| 1080 19510 | UTILITY FIXTURES, SPECIAL, 20.0-49.9, DI SLEEVE | EA | T | 1/1/2010 |
| 1080 19511 | UTILITY FIXTURES, SPECIAL, 20.0-49.9, CONCRETE MECHANICAL JOINT | EA | T | 1/1/2010 |

## 1135- A UTILITY- GUYS AND ANCHORS- ABOVE GROUND

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item for Utility JPA projects Only- NEW installations only.
Protection of existing structures during construction is incidental to the work being performed.
For ABOVE GROUND installations only.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1135- A** **UTILITY- GUYS AND ANCHORS- ABOVE GROUND** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Salvage & Store/Reuse)
5 (Adjust & Modify Or Relocate)
9 (Remove)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

**1501- 1-** **UTILITY LIFT STATION, SANITARY SEWER**

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item for Utility JPA projects Only
Includes pump(s), power, internal piping, housing, and incidentals associated with the station.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1501- 1-** **UTILITY LIFT STATION, SANITARY SEWER** **EA**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1501 1 | LIFT STATION, SANITARY SEWER | EA | T | 1/1/2010 | |

## 1644-ABC-DEE FIRE HYDRANT

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details**

This pay item for Utility JPA projects Only
Items to be used for Water Main & Service Applications.

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)** 7, 13

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1644-ABC-DEE** **FIRE HYDRANT** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC = 00, DEE = Blank
4 (Salvage & Store) BC = 00, DEE = Blank
5 (Salvage & Reuse) BC = 00, DEE = Blank
6 (Plug & Placed Out Of Service) BC = 00, DEE = Blank
7 (Adjust & Modify) BC = 00, DEE = Blank

8 (Relocate) BC = 00, DEE = Blank
9 (Remove) BC = 00, DEE = Blank

B = Type Of Hydrant
1 (Standard)
2 (Airport)
3 (Traffic)

C = Number Of Ways
1 (Hose)
2 (Two Hose)
3 (Two Hose, One Pumper)
4 (2 Way, Flush Type, One Hose, One Pumper)
5 (4 Way, Three Hose, One Pumper)
6 (3 Way, Two Hose, One Pumper)

D = (Open Leave Blank)

EE = Size
05 (2")
08 (6")
09 (8")

**Notes** Note: Do Not Code Leading Zeros.

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1644113 05 | FIRE HYDRANT, F&I, STANDARD, 2 HOSE, 1PUMPER, 2" | EA | T | 1/1/2010 | |
| 1644113 08 | FIRE HYDRANT, F&I, STANDARD, 2 HOSE, 1PUMPER, 6" | EA | T | 1/1/2010 | |
| 1644114 08 | FIRE HYDRANT, STANDARD, F&I, 2 WAY,FLUSH TYPE, 1 HOSE, 1 PUMPER,6" | EA | T | 1/1/2010 | |
| 1644116 08 | FIRE HYDRANT, STANDARD, F&I, 3 WAY, 2 HOSE, 1 PUMPER, 6" | EA | T | 1/1/2010 | |
| 1644116 09 | FIRE HYDRANT, STANDARD, F&I, 3 WAY, 2 HOSE, 1 PUMPER, 8" | EA | T | 1/1/2010 | |
| 1644133 08 | FIRE HYDRANT, F&I, TRAFFIC, 2 HOSE, 1PUMPER, 6" | EA | T | 1/1/2010 | |
| 1644136 08 | FIRE HYDRANT, F&I, TRAFFIC, 3 WAY - 2 HOSE, 1PUMPER, 6" | EA | T | 1/1/2010 | |
| 1644300 | FIRE HYDRANT, INSTALL | EA | T | 1/1/2010 | |
| 1644400 | FIRE HYDRANT, SALVAGE & STORE | EA | T | 1/1/2010 | |
| 1644700 | FIRE HYDRANT, ADJUST & MODIFY | EA | T | 1/1/2010 | |
| 1644800 | FIRE HYDRANT, RELOCATE | EA | T | 1/1/2010 | |
| 1644900 | FIRE HYDRANT, REMOVE | EA | T | 1/1/2010 | |

## 1720-ABB- UTILITY WORK- TRANSFORMER

**Unit** EA **Accuracy** Each **PlanQuantity?** no

**Notes**

**Details** This pay item for Utility JPA projects Only
Plans or Technical Specifications must detail item, materials, construction/installation requirements, as well as compensation.

For Plan Detail/Tech Spec items: The Designer should ensure that the description,

materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation**

COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation**

No additional form required; use plans summary or comp book

Record final quantity on the computation book form.

**References**

**PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1720-ABB-** **UTILITY WORK- TRANSFORMER** **EA**

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BB=00
8 (Relocate) BB=00
9 (Remove) BB=00

BB = Configurations
01 (25 kVA Continuous Single Phase)
02 (75 kVA Continuous Single Phase)
03 (250 kVA Continuous Single Phase)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1720103 | TRANSFORMER, F&I, 250 KVA CONTINUOUS SINGLE PHASE | EA | T | 1/1/2010 | |

## 1820- 1- AB UTILITY CABLE, TELEPHONE/COMMUNICATIONS

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details**

This pay item for Utility JPA projects Only

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

| Related Items | Required | Recommended |
|---|---|---|
| **Design Forms and Documentation** | COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation<br>Locate in the plans. Summarize quantities by location in the computation book. | |
| **Construction Forms and Documentation** | No additional form required; use plans summary or comp book<br>Record final quantity on the tabulation sheet (plans) or computation form (comp book). | |
| **References** | **PPM Chapter**<br>**Trns·port**<br>**Other**<br>**Standards**<br>**Specifications**<br>**T: Plan Details and/or Technical Specifications required**<br>**Prep & Doc Manual Chapter(s)** | |

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1820- 1- AB** **UTILITY CABLE, TELEPHONE/COMMUNICATIONS** **LF**

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)*
4 (Relocate)*
5 (Adjust /Modify)*
6 (Remove & Dispose)* Note: Contractor takes ownership
7 (Remove & Stockpile/Salvage)* Note: DOT/maintaining agency retains ownership
8 (Place out of Service)*
9 OPEN Note: May be defined in item structure as Special, Rehab, etc.
* When A=3-9, B=0

B= # of pairs
1 (up to 10 pair)
2 (11-50 pair)
3 (50-100 pair)
4 (greater than 100 pair)

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1820 1 50 | UTILITY CABLE, TELEPHONE/COMMUNICATIONS, ADJUST & MODIFY | LF | T | 1/1/2010 | |
| 1820 1 60 | UTILITY CABLE, TELEPHONE/COMMUNICATIONS, REMOVE AND DISPOSE, CONTRACTOR TAKES OWNERSHIP | LF | T | 1/1/2010 | |

**1820- 2- AB** **UTILITY FIBER OPTIC, TELEPHONE/COMMUNICATIONS**

**Unit** LF; M1 **Accuracy** Linear Foot; 1/10 Meter **PlanQuantity?** no

**Notes**

**Details** This pay item for Utility JPA projects Only

For Plan Detail/Tech Spec items: The Designer should ensure that the description, materials, construction/installation requirements, method of measurement and basis of payment are available in the contract documents to clearly define the work to be completed for payment under this item.

**Related Items** **Required** **Recommended**

**Design Forms and Documentation** COMP 700-050-09: Linear Measure Comp with Components and Cont., or COMP 700-050-03: Linear Measurement, Component Weight, Per Hour, Per Day or Per Each Computation and Continuation

Locate in the plans. Summarize quantities by location in the computation book.

**Construction Forms and Documentation** No additional form required; use plans summary or comp book

Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References** **PPM Chapter**

**Trns·port**

**Other**

**Standards**

**Specifications**

**T: Plan Details and/or Technical Specifications required**

**Prep & Doc Manual Chapter(s)**

***TRNS*PORT Category (DRAFT FIELD):*** 0700 Utilities

**Struct.** **1820- 2- AB** **UTILITY FIBER OPTIC, TELEPHONE/COMMUNICATIONS** **LF**

**Notes**

***The following items were open, as of the publication date. Refer to the Master Pay Item list for current items.***

| Item | Description | Unit | TSP/Detail | Valid Date | Obsolete Date |
|---|---|---|---|---|---|
| 1820 2 60 | UTILITY FIBER OPTIC,TELEPHONE COMMUNICATIONS, REMOVE & DISPOSE, CONTRACTOR TAKES OWNERSHIP | LF | T | 1/1/2010 | |

# BOE

## Basis of Estimates

*Appendices*

State Specifications and Estimates Office
Estimating Systems Support Section

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