## 101- 1- MOBILIZATION

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Notes**

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.

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuantLS</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

**Documentation**

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

Construction

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

**References**

PPM Chapter
Other
Standards
Specifications

PPM Chapter: 7, 13

**Status**

Struct. 101- 1- MOBILIZATION LS/LS

### 102- 1- MAINTENANCE OF TRAFFIC

<table>
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<tr>
<th>Unit</th>
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<th>Accuracy</th>
<th>Lump Sum (Day)</th>
<th>PlanQuantity?</th>
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</tr>
</thead>
</table>

**Notes**

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**

<table>
<thead>
<tr>
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</table>

**TRNS*PORT Category (DRAFT FIELD):** 0200 Roadway
### 102- 2- AA SPECIAL DETOUR

<table>
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<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity?</th>
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</tr>
</thead>
</table>

#### Notes

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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Design</th>
<th>SHTabQuantLS</th>
<th>COMP 700-050-05</th>
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<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
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</table>

<table>
<thead>
<tr>
<th>References</th>
<th>PPM Chapter</th>
<th>Refer to Comp Book</th>
</tr>
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| Prep & Doc Manual Chapter(s) | 7, 13 |

---

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

**Status**

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

---

**Notes**

Details and Structure: Items 100 to 1999
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 56

Notes

102-3-
COMMERCIAL MATERIAL FOR DRIVEWAY MAINTENANCE

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

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. 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. The final quantity shall be determined by truck measurement, loose volume.
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
Forms Design SHTabQuant
Construction 700-050-54
Documentation Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Notes

102-11-
SERVICE PATROL

Unit MH  Accuracy Hour  PlanQuantity? no

Details
Used when it is determined during design that an active service patrol 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.

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.

### Required and Recommended Specifications

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
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</thead>
<tbody>
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<tr>
<td></td>
<td>Construction</td>
<td>All field records are required for this item. Final payment is based on field book/records.</td>
</tr>
<tr>
<td>References</td>
<td>PPM Chapter</td>
<td>Index No. 600</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>Standards</td>
<td>Specifications</td>
<td></td>
</tr>
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</table>

**Plan Detail and/or Tech Spec Required**

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

---

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

**Status**

- **Struct:** 102-11- SERVICE PATROL MH

---

### TRAFFIC CONTROL OFFICER

<table>
<thead>
<tr>
<th>Unit</th>
<th>MH</th>
<th>Accuracy</th>
<th>Hour</th>
<th>PlanQuantity?</th>
<th>no</th>
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</thead>
</table>

**Notes**

- Refer to 999-102 for Speed/Law Enforcement
- ***** 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 are necessary on projects:
- Traffic control in a signalized intersection when signals are not in use,
- When standard index no. 619 (moving operations) are used on Interstate at nighttime and required by the plans,
- When pacing/rolling blockade specification is used (Tech Spec Recommended).

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.

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**Related Items**

<table>
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<td>Forms</td>
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**Details and Structure:** Items 100 to 1999
### WORK ZONE SIGN

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<th>Accuracy</th>
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<td><strong>Notes</strong></td>
<td></td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

#### 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.

#### Related Items

- **Required**
  - Design: SHTabQuant
  - Construction: 700-050-51
- **Recommended**
  - Design: COMP 700-050-03
  - Construction: 

#### References

- **PPM Chapter**
- **Other**
  - Standards: Index No. 619
  - Specifications: 
- **Prep & Doc Manual Chapter(s)**: 7, 13

---

### BUSINESS SIGN

#### Details and Structure: Items 100 to 1999

<table>
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<tr>
<th><strong>Notes</strong></th>
<th>Signs LESS THAN 20 sf only- see details above</th>
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### WORK ZONE SIGN

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<tr>
<td><strong>Notes</strong></td>
<td></td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

#### 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.

#### Related Items

- **Required**
  - Design: SHTabQuant
  - Construction: 700-050-51
- **Recommended**
  - Design: COMP 700-050-03
  - Construction: 

#### References

- **PPM Chapter**
- **Other**
  - Standards: Index No. 600
  - Specifications: 
- **Prep & Doc Manual Chapter(s)**: 7, 13

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### BUSINESS SIGN

#### Details and Structure: Items 100 to 1999

<table>
<thead>
<tr>
<th><strong>Notes</strong></th>
<th></th>
</tr>
</thead>
</table>
UNIT: EA

accuracy: each

plan quantity: no

notes:

used for the purpose of assisting the motorists find 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.

related items:

required: shtabquant

recommended: comp 700-050-03

notes:

locate in plans. summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

references:

ppm chapter

other

standards: index no. 600

specifications

prep & doc manual chapter(s): 6, 7, 13

transport category (draft field): 0200 roadway

status

struct: 102- 61-

business sign

EA

notes:

related items:

unit: lf; m1

accuracy: linear foot; 10th of a meter

plan quantity: no

notes:

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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>COMP 700-050-03</td>
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<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>References</th>
<th>PPM Chapter</th>
</tr>
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<tr>
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<tr>
<td>Standards</td>
<td>see detail</td>
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<td>Specifications</td>
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</tbody>
</table>

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

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

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

102- 73- TEMPORARY GUARDRAIL

Unit LF; M1 Accuracy Linear Foot; 10th of a 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.

Related Items Forms

Required

Recommended SHTabQuant COMP 700-050-03
Standards
Index No. 400
Specifications
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct.  102- 73-  TEMPORARY GUARDRAIL LF

Notes
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

Related Items
Forms
Design SHTabQuant COMP 700-050-03
Construction 700-050-51

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other
Standards Index No. 600
Specifications
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct.  102- 74-  A TEMPORARY BARRICADE ED

Notes
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 (Type I, II, DI, VP, or Drum). Note: DI = Direction Indicator Barricade, which is shown on Index 600. Estimate for each Traffic Control Plan phase based on the type of operation and duration anticipated as follows: Quantity= (Length of Setup / Barricade Spacing) X Phase Duration.

Related Items
Forms
Design SHTabQuant COMP 700-050-03
Construction 700-050-51

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other
Standards Index No. 600
Specifications
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct.  102- 74-  A TEMPORARY BARRICADE ED

Notes
A = Type
1 (Types I, II, DI, VP & Drum)
2 (Type III- 6')
### ADVANCE WARNING ARROW PANEL

<table>
<thead>
<tr>
<th>Unit</th>
<th>ED</th>
<th>Accuracy</th>
<th>Each Day</th>
<th>PlanQuantity? no</th>
</tr>
</thead>
</table>

**Notes**

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.

**Details**

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
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**References**

PPM Chapter

Other

Standards | Index No. 600
Specifications

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

---

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

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

---

### HIGH INTENSITY FLASHING LIGHT, TEMPORARY, TYPE B

<table>
<thead>
<tr>
<th>Unit</th>
<th>ED</th>
<th>Accuracy</th>
<th>Each Day</th>
<th>PlanQuantity? no</th>
</tr>
</thead>
</table>

**Notes**

Included as a safety device, to draw attention to the warning sign. The lights shall be mounted on the first advanced warning sign where only one sign is used, and on the first and second advanced 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.

**Details**

**Related Items**

<table>
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**Documentation**

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<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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**References**

PPM Chapter

Other

Standards | Index No. 600
Specifications

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Details and Structure: Items 100 to 1999
**Prep & Doc Manual Chapter(s)** 7, 13

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

**Status**

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

**Notes**

---

**102- 78- TEMPORARY REFLECTIVE PAVEMENT MARKER**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
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<th>Each</th>
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**Notes**

**Details**

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

**Related Items**

**Required**
- **Design** SHTabQuant
- **Construction** Refer to Comp Book

**Recommended**
- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Other**

**Standards** Index No. 600, 17352

**Specifications**

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

---

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

<table>
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<tr>
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<th>ED</th>
<th>Accuracy</th>
<th>Each Day</th>
<th>PlanQuantity?</th>
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</tr>
</thead>
</table>

**Notes**

**Details**

Roadway Design Bulletin 08-01, dated 1-14-08: Continue to use steady burn lights on channelizing devices.

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).
<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Forms Design</td>
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<td>Prep &amp; Doc Manual Chapter(s)</td>
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**TRNS*PORT Category (DRAFT FIELD):** 0200 Roadway

**Status** Block Pending

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

<table>
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<th>Location</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
<tr>
<td>Documentation Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
<td></td>
</tr>
<tr>
<td>References PPM Chapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Standards</td>
<td>Index 417, see detail</td>
<td></td>
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<td>Specifications</td>
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<td></td>
</tr>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Status** Block Pending

**Struct.** 102- 81- 2 TEMPORARY CRASH CUSHION -GATING LO
Notes  Contact Cheryl Adams prior to use. Project specific conditions must be reviewed.

102- 89- A  TEMPORARY CRASH CUSHION

<table>
<thead>
<tr>
<th>Unit</th>
<th>LO</th>
<th>Accuracy</th>
<th>Location</th>
<th>PlanQuantity?</th>
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</tr>
<tr>
<td>Details</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Formerly known as "Impact Attenuators"
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.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
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<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>COMP 700-050-03</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
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<td>Construction</td>
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<tr>
<td>References</td>
<td>PPM Chapter</td>
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<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>Standards</td>
</tr>
<tr>
<td></td>
<td>See detail; Index No. 413, 415, 434, 432, 433, 435, 438, 439, 440, 441, 481, 493, 495, 497, 498</td>
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<td>Prep &amp; Doc Manual Chapter(s)</td>
</tr>
<tr>
<td></td>
<td>7, 13</td>
</tr>
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</table>

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

**Status**

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

A = Type
7 (Redirective Option)

Notes

102- 94- AB  GLARE SCREEN

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Details</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See barrier wall detail for measurement. to be used with Temporary Barrier Wall (Concrete)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Related Items**

<table>
<thead>
<tr>
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<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
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<tr>
<td></td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>COMP 700-050-03</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
</tbody>
</table>
**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

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

**Status**

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

A = Operation
Blank (Furnish and Install)
1 (Relocate)
B = Wall Material
1 (Concrete)

**Notes**

**102-98- A BARRICADE TYPE III (TO REMAIN)**

| Unit   | EA | Accuracy | Each | PlanQuantity? | no |

**Notes**

**Details**

**Related Items**

Required

Recommended

**Forms**

Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

**Documentation**

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

PPM Chapter

Other

Standards Index No. 600

Specifications

Prep & Doc Manual Chapter(s) 7, 13

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

**Status**

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

A = Size
2 (6 Feet)

**Notes**

**102-99- CHANGEABLE VARIABLE MESSAGE SIGN- TEMPORARY**

Details and Structure: Items 100 to 1999
### 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. Estimate the number needed for each traffic control plan phase, times the phase duration. Not to be used when standard signs are available.

Refer to the Plans Preparation Manual for proper usage.

### Related Items

**Forms**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>700-050-03</td>
</tr>
</tbody>
</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

### References

- **PPM Chapter**
- **Other**
- **Standards** Index No. 600
- **Specifications**

### Status

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

**Struct.** 102-99- CHANGEABLE VARIABLE MESSAGE SIGN-TEMPORARY

### Notes

**102-104- A TEMPORARY TRAFFIC CONTROL SIGNAL**

<table>
<thead>
<tr>
<th>Unit</th>
<th>ED</th>
<th>Accuracy</th>
<th>Each Day</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Details**

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

### Related Items

**Forms**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>700-050-03</td>
</tr>
</tbody>
</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

### References

- **PPM Chapter**
- **Other**
- **Standards** Index No. 606
- **Specifications**

**Prep & Doc Manual Chapter(s)** 7, 13
### 102-104- A  
**TEMPORARY TRAFFIC CONTROL SIGNAL**  

- **A = Type**  
  1 (Portable)  
  2 (Fixed)

### 102-106- A  
**BARRIER WALL CONCRETE (QUICK CHANGE MOVABLE)**

- **Unit**: LF; M1; EA  
- **Accuracy**: Linear Foot; 10th of a Meter; Each  
- **PlanQuantity?**: no

**Details**  
Item must be coordinated with Roadway Design prior to opening.

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**

- **Forms**  
  - **Design**: SHTabQuant  
  - **Construction**: Refer to Comp Book

- **Documentation**  
  - **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**: Index No. 600
- **Specifications**

**Plan Detail and/or Tech Spec Required**

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

### 102-107- 
**TEMPORARY TRAFFIC DETECTION, INTERSECTION**

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

**Notes**
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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>COMP 700-050-03</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>COMP 700-050-03</td>
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<tr>
<td>Documentation</td>
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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
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<tr>
<td></td>
<td>Construction</td>
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</table>

**References**

PPM Chapter

Other

Standards

Specifications

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

**102-150- 2 RADAR SPEED DISPLAY UNIT**

<table>
<thead>
<tr>
<th>Unit</th>
<th>ED</th>
<th>Accuracy</th>
<th>Each Day</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Details</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
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<td></td>
<td>Construction</td>
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<td>References</td>
<td>PPM Chapter</td>
<td></td>
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<tr>
<td></td>
<td>Other</td>
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<tr>
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<td>Index No. 670.</td>
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</tr>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>6, 7, 13</td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

**102-911- A PAVEMENT MARKING REMOVABLE- WHITE/BLACK**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1; SF; M2</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter; Square Foot; Square Meter</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details</td>
<td></td>
<td></td>
<td>Use of removable work zone pavement markings shall be as defined by 102-10 of the specifications.</td>
<td></td>
</tr>
</tbody>
</table>
FOR ITEM 102-911- 3 (2102-911- 3): Used for Stop bars, turn arrows, etc.

### Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong></td>
<td><strong>Design</strong></td>
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<tr>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
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### Documentation

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</table>

### Standards

- Index No. 600

### Prep & Doc Manual Chapter(s)

- 7, 13

---

### TRNS*PORT Category (DRAFT FIELD)

0200 Roadway

### Status

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

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

---

### TRNS*PORT Category (DRAFT FIELD)

102-912- A PAVEMENT MARKING REMOVABLE- YELLOW

<table>
<thead>
<tr>
<th><strong>Unit</strong></th>
<th><strong>Accuracy</strong></th>
<th><strong>PlanQuantity?</strong></th>
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<tbody>
<tr>
<td>LF; M1; SF; M2</td>
<td>Linear Foot; 10th of a Meter; Square Foot; Square Meter</td>
<td>no</td>
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### Notes

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

### Related Items

<table>
<thead>
<tr>
<th><strong>Forms</strong></th>
<th><strong>Design</strong></th>
<th><strong>Construction</strong></th>
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<tbody>
<tr>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
<td>Refer to Comp Book</td>
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### Documentation

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</table>

### References

- PPM Chapter
- Other
- Index No. 600

### TRNS*PORT Category (DRAFT FIELD)

0200 Roadway

### Status

**Details and Structure: Items 100 to 1999**
### Temporary Work Structure

**Struct.** 103-1-1  **TEMPORARY WORK STRUCTURE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Plan Quantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lump Sum</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**

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**
  - Design: SHTabQuantLS
  - Construction: Refer to Comp Book

- **Recommended**
  - Design: COMP 700-050-05
  - Construction: Refer to Comp Book

**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

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

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

- 0200 Roadway

---

### Artificial Coverings for Erosion Control

**Struct.** 104-1-1  **ARTIFICIAL COVERINGS FOR EROSION CONTROL**

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M2</th>
<th>Accuracy</th>
<th>Plan Quantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Square Yard; Square Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

This item may be used for two purposes. Estimate and/or calculate according to the following information. The total quantity is the sum used for the two purposes below. The
quantity and purpose of each should be noted in a pay item footnote.

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).

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
<td>Construction</td>
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<td></td>
</tr>
</tbody>
</table>

**References**

PPM Chapter

Other

Standards

Specifications

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

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

**Status**

**Struct.** 104-1- ARTIFICIAL COVERINGS FOR EROSION CONTROL SY

**Notes**

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.

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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
</tr>
</tbody>
</table>

**Details**

**Unit** AC; HA  **Accuracy** 10th of an Acre; 10th of a Hectare  **PlanQuantity?** no

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.

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.
|----------------------|--------------------|--------------|--------------|

### 104-4- MOWING AC

**Construction**

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

**Notes**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s) 6, 7, 13

---

### 104-5- SANDBAGGING

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
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<tbody>
<tr>
<td>CY; M3</td>
<td>Cubic Yard; Cubic Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

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**

- **Forms**
  - Required: SHTabQuant
  - Recommended: COMP 700-050-04
  - Construction: 700-050-56

- **Documentation**
  - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other
- Standards
  - Index No. 100, 102, 201
- Specifications
- Prep & Doc Manual Chapter(s) 6, 7, 13

---

### 104-6- TEMPORARY SLOPE DRAIN

<table>
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<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
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</tbody>
</table>

**Notes**

Base estimate as described by Roadway Standard Index No. 100, locations and lengths.
Related Items

<table>
<thead>
<tr>
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**Forms**

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<td>SHTabQuant</td>
<td>Refer to Comp Book</td>
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**Documentation**

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**References**

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

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

**Status**

**Struct.**

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<tr>
<th>104- 6-</th>
<th>TEMPORARY SLOPE DRAIN</th>
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**Notes**

**104- 7- SEDIMENT BASIN**

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity? no</th>
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**Notes**

**Details**

Use when separate items for temporary erosion control features are included in the contract. Includes cost for riprap, fencing, baffles, piping, and earthwork, as indicated on Index. Refer to index for estimated quantity.

**Related Items**

<table>
<thead>
<tr>
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<td>Refer to Comp Book</td>
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**Documentation**

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**References**

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

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

**Status**

**Struct.**

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**Notes**

Details and Structure: Items 100 to 1999
104- 9-  SEDIMENT BASIN CLEANOUT

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<tr>
<th>Unit</th>
<th>CO; EA</th>
<th>Accuracy</th>
<th>Per Clean Out; Each</th>
<th>PlanQuantity?</th>
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Notes

Details
Estimate one cleanout per sediment basin, Item 104- 7 (2104- 7), on project.

Related Items

<table>
<thead>
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<th>Recommended</th>
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Forms

Design Refer to Comp Book

Construction

<table>
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Specifications

Index No. 101

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

References

PPM Chapter

Other

Standards

Notes

Details

<table>
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Other

SYNTHETIC BALES

<table>
<thead>
<tr>
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<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

Notes

Effective January 2007; replaces 104-10-1 Baled Hay or Straw. NOTE: UNIT OF MEASURE CHANGED TO LINEAR FOOT

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

<table>
<thead>
<tr>
<th>Form</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
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Forms

Design Refer to Comp Book

Documentation

<table>
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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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</table>

References

PPM Chapter

Other
Standards
Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct. 104-10-2 SYNTHETIC BALES LF

Notes

104-11- A FLOATING TURBIDITY BARRIER

Unit LF; M1 Accuracy Linear Foot; 10th of a Meter PlanQuantity? no

Notes Details
to be included in areas where dredging, filling or other construction activities may cause turbidity in water. Refer to Design Standard Index 103. Used when turbidity standards may be exceeded, as shown in the plans and permit.

Related Items
Required Recommended
Forms Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other Standards Index No. 103
Specifications
Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct. 104-11- A FLOATING TURBIDITY BARRIER LF

A = Blank (Standard)
1 (Special) Plan Detail and/or Tech Spec Required

Notes

104-12- A STAKED TURBIDITY BARRIER

Unit LF; M1 Accuracy Linear Foot; 10th of a Meter PlanQuantity? no

Notes Details
to be included in areas where continuous construction activities change the natural contour and drainage runoff. Should be installed across ditch lines and other temporary locations where construction may interfere with natural runoff. Refer to Design Standard Index 106.
**STAKED TURBIDITY BARRIER**

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity?**: no

**Notes**

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**

**Forms**

- **Required**: SHTabQuant  
- **Recommended**: COMP 700-050-03

**Construction**

- **Design**: Refer to Comp Book

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- **PPM Chapter**
- **Other Standards**: Index No. 102, 106

---

**STAKED SILT FENCE**

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity?**: no

**Notes**

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**

**Forms**

- **Required**: SHTabQuant  
- **Recommended**: COMP 700-050-03

**Construction**

- **Design**: Refer to Comp Book

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- **PPM Chapter**
- **Other Standards**: Index No. 102, 106

---

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

**Struct.** 104-12-A

**A = Blank (Standard)**

1 (Special) Plan Detail and/or Tech Spec Required
**104- 15-**

**SOIL TRACKING PREVENTION DEVICE**

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA</td>
<td>Each</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

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**

**Forms**

- Required: 104-10-1, 104-13-xxa
- Recommended: COMP 700-050-03

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other Standards: Index No. 106
- Specifications

---

**104- 16-**

**ROCK BAG**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA</td>
<td>Each</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

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.

### 104-16- ROCK BAG

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity**: no

**Notes**
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**: SHTabQuant  
- **Recommended**: COMP 700-050-03

**Forms**
- **Design**: Refer to Comp Book

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**: Other

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

---

### 104-17- SAND FENCE

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity**: no

**Notes**
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**: SHTabQuant  
- **Recommended**: COMP 700-050-03

**Forms**
- **Design**: Refer to Comp Book

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**: Other

**Prep & Doc Manual Chapter(s)**: Plan Detail and/or Tech Spec Required

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

**Status**
- **Struct.**: 104-16- ROCK BAG  
- **Construction**: EA

---

Details and Structure: Items 100 to 1999
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 working 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."

<table>
<thead>
<tr>
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<th>Recommended</th>
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<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
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<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
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The designer should locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### Notes

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### Status

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<th>FIELD OFFICE</th>
<th>DA</th>
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<tr>
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<td>1 (300 Sq ft)</td>
<td>2 (600 Sq ft)</td>
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### Related Items

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<tbody>
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### Standards and Specifications

<table>
<thead>
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<th>PPM Chapter</th>
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### Prep & Doc Manual Chapter(s)

<table>
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<th>Prep &amp; Doc Manual Chapter(s)</th>
<th>7, 13</th>
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### TRNS*PORT Category

**Roadway**

### Notes

**CLEARING AND GRUBBING**

### Unit

<table>
<thead>
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<th>LS/AC; LS/HA</th>
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<tbody>
<tr>
<td>Lump Sum (1/100th of an Acre); Lump Sum (1/100th of a Hectare)</td>
<td></td>
<td></td>
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</tbody>
</table>

**Notes**

Details and Structure: Items 100 to 1999
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. (Removal of concrete pavement, non-asphalt, to be paid under 110- 4- (2110- 4-))

Required: 
Recommended: 

Forms: 
Design: SBEHWK; SBEearthwork COMP 700-050-05 
Construction: Refer to Comp Book 

Documentation: 
Design: Use a quantity of 1, but calculations and documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans. 
Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. 

References: 
PPM Chapter 
Other 
Standards 
Specifications 

Prep & Doc Manual Chapter(s) 7, 13 

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: 
Forms: 
Design: SBEHWK; SBEearthwork COMP 700-050-01 
Construction: Refer to Comp Book 

Documentation: 
Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. 
Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book). 

References: 
PPM Chapter 
Other 
Standards 
Specifications
Struct.  110-  2-  1 CLEARING AND GRUBBING (PUSH BUTTON CONTRACT)

Notes

110- 3- REMOVAL OF EXISTING STRUCTURE

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/SF; LS/M2</th>
<th>Accuracy</th>
<th>Lump Sum (Square Foot); Lump Sum (Square Meter)</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

Details

- to be 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 to be 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. Cover 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
  - Design: SHTabQuantLS
  - Construction: Refer to Comp Book

- Recommended
  - Design: COMP 700-050-05
  - Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

References

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s)  6, 13

Notes
### 110- 4- REMOVAL OF EXISTING CONCRETE PAVEMENT

<table>
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<tr>
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<tbody>
<tr>
<td>SY; M2</td>
<td>Square Yard; Square Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

**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 flexible pavement removal under this item.

**Related Items**

<table>
<thead>
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<th>Recommended</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-01</td>
</tr>
</tbody>
</table>

| Design   | Refer to Comp Book |
| Construction | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |

**References**

PPM Chapter

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

---

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

### 110- 5- PLUGGING WATER WELL- ARTESIAN

<table>
<thead>
<tr>
<th>Unit</th>
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<td>ED</td>
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</table>

**Notes**

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…”

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
</tr>
</tbody>
</table>

| Design   | Refer to Comp Book |
| Construction | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |

| Design   | Refer to Comp Book |
| Construction | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |

**References**

PPM Chapter

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

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

**Status**

**Struct.** 110-5  
**PLUGGING WATER WELL - ARTESIAN**  
**ED**

---

**110-6**

**PLUGGING WATER WELL - NON-ARTESIAN**

<table>
<thead>
<tr>
<th>Unit</th>
<th>ED</th>
<th>Accuracy</th>
<th>Each Day</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

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."

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

**Documentation**

<table>
<thead>
<tr>
<th>Design</th>
<th>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

**References**

PPM Chapter  
Other  
Standards  
Specifications  
Prep & Doc Manual Chapter(s) 7, 13

---

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

**Status**

**Struct.** 110-6  
**PLUGGING WATER WELL - NON-ARTESIAN**  
**ED**

---

**110-7 A**

**MAILBOX - FURNISH AND INSTALL**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

Used for replacement of residential or business mailboxes that must be removed during construction operations. Refer to Index 532 for details.

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

**Documentation**

<table>
<thead>
<tr>
<th>Design</th>
<th>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

**References**

PPM Chapter  
Other
### Standards
Index No. 532

### Specifications

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

---

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

### Status

**Struct.** 110- 7- A

**MAILBOX - FURNISH AND INSTALL**

**EA**

A = Description

1 (Furnish & Install Single)

---

### Notes

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

<table>
<thead>
<tr>
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<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>700-050-51</td>
</tr>
<tr>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

### References

**PPM Chapter**

**Other**

**Standards**

**Specifications**

Plan Detail and/or Tech Spec Required

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

---

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

### Status

**Struct.** 110- 8- A

**UNDERWATER DEBRIS REMOVAL**

**DA; TN**

A = Method of Measurement

blank (Day) DA

1 (Weight) TN

---

Details and Structure: Items 100 to 1999
Notes

**110-12- A HYDRODEMOLITION**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY; M2; SF</td>
<td>Square Yard; Square Meter; Square Foot</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

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**

- **Forms**
  - **Design**
    - SHTabQuant
  - **Construction**
    - Refer to Comp Book

- **Documentation**
  - **Design**
    - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - **Construction**
    - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Recommended**

- **PPM Chapter**
  - Other
  - Specifications

**Plan Detail and/or Tech Spec Required**

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

**Struct. 110-12- A HYDRODEMOLITION**

A = Description/Unit of Measure

1 (Removal Of Deck Surface) SY
2 (Removal Of Concrete Curb) SF

**Notes**

**110-71-1 BRIDGE FENDER SYSTEM, REMOVAL & DISPOSAL- REHAB PROJECTS ONLY**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

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.
completed for payment under this item.

**Related Items**

**Required** | **Recommended**
---|---
**Forms**
Design | SHTabQuant | COMP 700-050-03
Construction | Refer to Comp Book

**Documentation**

Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

PPM Chapter | Design | Construction | 6, 7, 13
Other | 
Standards | 
Specifications | 

**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**
---|---
**Forms**
Design | SHTabQuant | COMP 700-050-03
Construction | Refer to Comp Book

**Documentation**

Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

PPM Chapter | Design | Construction | 7, 13
Other | 
Standards | 
Specifications | 

**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.
### 110-73-
**REMOVE EXISTING BULKHEAD**

**Unit**: LF

---

### 110-82-
**REMOVE & DISPOSE STRUCTURAL TIMBER**

<table>
<thead>
<tr>
<th>Unit</th>
<th>MB; M3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>10th of a Thou Board Measure; 10th of a Cubic Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

- 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**
- Design: SHTabQuant
- Construction: 700-050-56

**Recommended**
- SHTabQuant
- COMP 700-050-04

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other
- Standards
- Specifications

**Plan Detail and/or Tech Spec Required**

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

- 7, 13

---

### 110-84-
**TRANSPORT EXISTING MATERIAL FOR REEF ESTABLISHMENT**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Lump Sum</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**

- 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**
- Design: SHTabQuantLS

**Recommended**
- COMP 700-050-05

---

**TRNS*PORT Category (DRAFT FIELD):** 100 or 200 Structures or Roadway

**Status**

- Struct. 110-82-
- REMOVE & DISPOSE STRUCTURAL TIMBER MB
**Struct. 110-84-**

TRANSPORT EXISTING MATERIAL FOR REEF ESTABLISHMENT

---

### Notes

**110-86-** DELIVERY OF SALVAGEABLE MATERIAL TO FDOT

**Unit**

LS/LS

**Accuracy**

Lump Sum

**Plan Quantity?**

Yes

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuantLS COMP 700-050-05</td>
</tr>
</tbody>
</table>

**Forms**

Refer to Comp Book

**Documentation**

| Design
| Use a quantity of 1. No form required. Locate or define the scope of work involved on the plans.

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

**References**

- PPM Chapter
- Other
- Standards
- Specifications

**Plan Detail and/or Tech Spec Required**

Refer to Comp Book

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

7, 13

**Status**

TRNS*PORT Category (DRAFT FIELD):

0200 Roadway

---

Details and Structure: Items 100 to 1999
### Struct. 110-86- DELIVERY OF SALVAGEABLE MATERIAL TO FDOT LS/LS

#### Notes

### 120-1- REGULAR EXCAVATION

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Cubic Yard; Cubic Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>yes</td>
</tr>
</tbody>
</table>

**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**: 120-6 (2120-6)
- **Recommended**: 120-6 (2120-6)

**Forms**

- **Design**: SBEHWK; SBEarthwork
- **Construction**: Refer to Comp Book

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- **Construction**: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

- **PPM Chapter**: Index No. 285, 500, 505
- **Specifications**: COMP 700-050-04
- **Prep & Doc Manual Chapter(s)**: 6, 13

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

**Status**

#### Struct. 120-1- REGULAR EXCAVATION CY

**Notes**

---

### 120-2- A BORROW EXCAVATION

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Cubic Yard; Cubic Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**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: \[(\text{Fill} + (\text{Fill} \times \text{Fill Adjustment}) \times \text{Truck Adjustment}) = \text{Borrow Excavation} \times \text{(Truck Measure)}\]. 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**: 120-71 (2120-71)
- **Recommended**: 120-71 (2120-71)

**Forms**

- **Design**: SBEHWK; SBEarthwork
- **Construction**: COMP 700-050-04

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
**Construction**  
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**: Chapter 3
- **Other**
- **Standards**: Index No. 500, 505
- **Specifications**
- **Prep & Doc Manual Chapter(s)**: 6, 8, 13

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

**Struct.**  
120-2- A  
BORROW EXCAVATION  
CY

**Notes**
- **Details**
  - A = Measure Type
  - 2 (Truck Measure)

---

**120-3- LATERAL DITCH EXCAVATION**

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Cubic Yard; Cubic Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>yes</td>
</tr>
</tbody>
</table>

**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**
  - **Forms**
    - Design: SBEHWK; SBEarthwork
    - Construction: Refer to Comp Book
  - **Documentation**
    - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
    - Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**
- **PPM Chapter**
- **Other**
- **Standards**: Index No. 281, 500
- **Specifications**
- **Prep & Doc Manual Chapter(s)**: 9, 13

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

**Status**
- **Struct.**  
120-3-  
LATERAL DITCH EXCAVATION  
CY

**Notes**

---

**120-4- SUBSOIL EXCAVATION**

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Cubic Yard; Cubic Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

---

Details and Structure: Items 100 to 1999
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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>120- 2- 2 or 120-6 (2120-2-2 or 2120-6)</td>
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</tbody>
</table>

Forms

<table>
<thead>
<tr>
<th>Design</th>
<th>SBEHWK; SBEarthwork</th>
<th>COMP 700-050-04</th>
</tr>
</thead>
</table>

Documentation

<table>
<thead>
<tr>
<th>Design</th>
<th>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

Specifications

| Index No. 500, 505 |

Status

Struct. 120-4- SUBSOIL EXCAVATION CY

Notes

120-5- CHANNEL EXCAVATION

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Cubic Yard; Cubic Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Forms

<table>
<thead>
<tr>
<th>Design</th>
<th>SBEHWK; SBEarthwork</th>
<th>COMP 700-050-04</th>
</tr>
</thead>
</table>

Documentation

<table>
<thead>
<tr>
<th>Design</th>
<th>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

References

| PPM Chapter |
| Other |
| Standards | Index No. 500, 505 |
| Specifications |

Prep & Doc Manual Chapter(s) 9, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Notes

Details and Structure: Items 100 to 1999
### EMBANKMENT

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
<th>Accuracy</th>
<th>Cubic Yard; Cubic Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

#### Notes
- 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**: 120- 6- (2120- 1)
- **Recommended**: 120- 6- (2120- 1)

#### Forms
- **Design**: SBEHWK; SBEarthwork
- **Construction**: COMP 700-050-04

#### Documentation
- **Design**: Refer to Comp Book
- **Construction**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

#### References
- **PPM Chapter**: 9, 13
- **Prep & Doc Manual Chapter(s)**: 9, 13

#### Status
- **TRNS*PORT Category (DRAFT FIELD)**: 0200 Roadway

### REGULAR EXCAVATION (3R PROJECTS ONLY)

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

#### Notes
- 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**: SHTabQuantLS
- **Recommended**: COMP 700-050-05

#### Forms
- **Design**: Refer to Comp Book

#### Documentation
- **Design**: Locate in plans. Summarize quantities by location on tabulation of
quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

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

**Status**
- **Struct.** 120-71- REGULAR EXCAVATION (3R PROJECTS ONLY) LS/LS

**Notes**

---

**120-72- GRAVEL FILL**

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

**Notes**

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**
- **Design** SHTabQuant
- **Construction** 700-050-54

**Recommended**
- **Design** COMP 700-050-04

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction** 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**
- **Other**
- **Standards**
- **Specifications**

Plan Details and/or Tech Spec required.

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

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

**Status**
- **Struct.** 120-72- GRAVEL FILL CY

---

Details and Structure: Items 100 to 1999
### Notes

#### 120- 73-

**LIGHTWEIGHT AGGREGATE FILL**

| Unit       | CY; M³          | Accuracy          | 10th of a Cubic Yard; 10th of a 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.

**Required Recommended**

**Forms**

- **Design**
  - SHTabQuant
  - COMP 700-050-04

- **Construction**
  - Refer to Comp Book

**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- PPM Chapter
- Other

- **Standards**
- **Specifications**

  **Plan Detail and/or Tech Spec Required**

  **Prep & Doc Manual Chapter(s)** 9, 13

---

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

### Status

**Struct.** 120- 73-

**LIGHTWEIGHT AGGREGATE FILL**

**Notes**

### Notes

#### 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 120-12.2, 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 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.

<table>
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<tr>
<th>Related Items</th>
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<th>Recommended</th>
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<td>Forms</td>
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<td></td>
<td>Design</td>
<td>Refer to Comp Book</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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<th>PPM Chapter</th>
<th>Other</th>
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<td>Standards</td>
<td>Specifications</td>
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Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Struct. 120-74- SURCHARGE EMBANKMENT CY

Notes

121-70- FLOWABLE FILL

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<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
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<tr>
<td>Notes</td>
<td>Details</td>
<td>Applications for flowable fill include: beddings, encasements, closure for tanks, pipes, and general backfill for trenches.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Required</th>
<th>Recommended</th>
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<td>COMP 700-050-04</td>
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<td></td>
<td>Design</td>
<td>Refer to Comp Book</td>
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<td></td>
<td>Construction</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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<td>Specifications</td>
<td>Index No. 307</td>
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</table>

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Details and Structure: Items 100 to 1999
## 125- 1- EXCAVATION FOR STRUCTURES

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
<th>Accuracy</th>
<th>Cubic Yard; Cubic Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHTabQuant</td>
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</table>

**Forms**

Refer to Comp Book

**Documentation**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

PPM Chapter

Other

Standards

Specifications

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

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

**Status**

**Struct. 125- 1- EXCAVATION FOR STRUCTURES CY**

---

## 125- 3- SELECT BEDDING MATERIAL

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
<th>Accuracy</th>
<th>Cubic Yard; Cubic Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHTabQuant</td>
<td>COMP 700-050-04</td>
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</tbody>
</table>

**Forms**

Refer to Comp Book

**Documentation**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation 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.
SELECT BEDDING MATERIAL

**Notes**

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**

**Forms**
- Required: SHTabQuant
- Recommended: COMP 700-050-03
- Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications
- Index No. 540

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

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

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

**Status**
- Struct. 125- 3- SELECT BEDDING MATERIAL CY

**Notes**

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**

**Forms**
- Required: SHTabQuant
- Recommended: COMP 700-050-03
- Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications
- Index No. 540

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

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

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

**Status**
- Struct. 141- 70- SETTLEMENT PLATE ASSEMBLY AS; EA

**Notes**

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**

**Forms**
- Required: SHTabQuant
- Recommended: COMP 700-050-03
- Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications
- Index No. 540

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

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

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

**Status**
- Struct. 142- 70- SAND FILL CY; M3

**Notes**

For Plan Detail/Tech Spec items: The Designer should ensure that the description,
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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<th>Related Items</th>
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<tr>
<td></td>
<td>Construction</td>
<td>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.</td>
</tr>
</tbody>
</table>

**References**

PPM Chapter
Other Standards Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 6, 7, 13

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

**Status** Inactive Structure

**Struct.** 142-70- SAND FILL CY

**Notes**

**144- 1- A** DIGITAL INCLINOMETER CASING

<table>
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<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
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</thead>
</table>

**Notes**

Future use will require Specification Development

**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.

<table>
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<tr>
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<td>Construction</td>
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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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**References**

PPM Chapter
Other Standards Specifications

Plan Detail and/or Tech Spec 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)

**Notes**  Future use will require Specification Development

---

**144- 71-**

**PORE-PRESSURE TRANSDUCER (PIEZOMETER)**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA</td>
<td>Each</td>
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</table>

**Notes**  Future use will require Specification Development

**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**  SHTabQuant
**Recommended**  COMP 700-050-03

**Forms**
**Design**  Refer to Comp Book
**Construction**  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**
**PPM Chapter**
**Other**
**Standards**
**Specifications**
Plan Detail and/or Tech Spec Required
**Prep & Doc Manual Chapter(s)**  6, 7, 13

---

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

**Struct.**  144- 71-  PORE-PRESSURE TRANSDUCER (PIEZOMETER)  EA

**Notes**  Future use will require Specification Development

---

**144- 72-**

**TUBING FOR PIEZOMETER**

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
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<tbody>
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<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
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**Notes**  Future use will require Specification Development

**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.

---

**Details and Structure: Items 100 to 1999**  Page 48 of 451
Standards
Specifications

Struct. 144-72- TUBING FOR PIEZOMETER LF

Notes
Future use will require Specification Development

144-73- DIGITAL INCLINOMETER

Unit EA Accuracy Each PlanQuantity? no

Notes
Future use will require Specification Development

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
Forms Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct. 144-73- DIGITAL INCLINOMETER EA

Notes
Future use will require Specification Development
### 144-74-
**PORE-PRESSURE TRANSDUCER- CONTROL/READOUT UNIT**

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<th>Each</th>
<th>PlanQuantity?</th>
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<td><strong>Future use will require Specification Development</strong>&lt;br&gt;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.</td>
<td></td>
<td></td>
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<tr>
<td>Details</td>
<td><strong>Future use will require Specification Development</strong>&lt;br&gt;Refer to Plans Prep Manual, Volume 1, Chapter 31, to establish design guidelines, parameters, and limitations for these systems. 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 height of the slope face, from top of slope to the ground line at the toe of slope. Refer to the specifications.</td>
<td></td>
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<td><strong>Related Items</strong></td>
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<td><strong>PORE-PRESSURE TRANSDUCER- CONTROL/READOUT UNIT</strong></td>
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### 145-1-
**GEOSYNTHETIC REINFORCED SOIL SLOPE**

<table>
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<tr>
<th>Unit</th>
<th>SF; M2</th>
<th>Accuracy</th>
<th>Square Foot; 10th of a Square Meter</th>
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<td></td>
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<tr>
<td><strong>Documentation</strong></td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
<td></td>
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</tr>
<tr>
<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for</td>
<td></td>
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</table>
GEOSYNTHETIC REINFORCED SOIL SLOPE

Unit: SY; M2
Accuracy: Square Yard; Square Meter
PlanQuantity?: yes

**Notes**

Refer to Plans Prep Manual, Volume 1, Chapter 31, to establish design guidelines, parameters, and limitations for these systems. 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**

Design: SHTabQuant
Construction: Refer to Comp Book

**Recommended**

Design: COMP 700-050-01

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

PPM Chapter
Other
Standards: Index No. 501
Specifications

**Prep & Doc Manual Chapter(s):** 6, 7, 13
Unit: SY; M²  Accuracy: Square Yard; Square Meter  PlanQuantity?: no

Notes: Future use will require Specification Development

Details: Geosynthetic Reinforced Roadway Base for Construction Expedient

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

<table>
<thead>
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<th>Recommended</th>
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<tr>
<td>Forms</td>
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<tr>
<td>Construction</td>
<td></td>
</tr>
</tbody>
</table>

Documentation

| Design            |                      |
| Construction      | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction      | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

References

PPM Chapter

<table>
<thead>
<tr>
<th>Standards</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index No. 501</td>
<td></td>
</tr>
</tbody>
</table>

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Struct. 145-71- A  REINFORCEMENT GRID  SY

A = Description
1 (Biaxial Type 1)
2 (Biaxial Type 2)
3 (Biaxial Type 3)

Notes: Future use will require Specification Development

160-3- COMMERCIAL STABILIZING MATERIAL

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

Details: Contact the District Soils Engineer for basis of estimate on each project. Show basis.

Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-04</td>
</tr>
<tr>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
<td>Construction</td>
<td>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.</td>
</tr>
</tbody>
</table>

References

PPM Chapter

<table>
<thead>
<tr>
<th>Standards</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index No. 501</td>
<td></td>
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</tbody>
</table>

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Struct. 145-71- A  REINFORCEMENT GRID  SY

A = Description
1 (Biaxial Type 1)
2 (Biaxial Type 2)
3 (Biaxial Type 3)

Notes: Future use will require Specification Development
**160- 4-**

**TYPE B STABILIZATION**

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M2</th>
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<tbody>
<tr>
<td>Accuracy</td>
<td>Square Yard; Square Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>yes</td>
</tr>
</tbody>
</table>

**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**

**Forms**

- **Required**: SHTabQuant
- **Recommended**: COMP 700-050-01

**Documentation**

- **Design**: Refer to Comp Book
- **Construction**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

- **Construction**: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

- **PPM Chapter**
- **Other**
- **Standards**: Index No. 506
- **Specifications**

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

---

**160- 6-**

**STABILIZED SUBBASE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Square Yard; Square Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**Details**

**Related Items**

- **Required**
- **Recommended**

---

**Details and Structure**: Items 100 to 1999
TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

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.

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
Forms Design SHTabQuant COMP 700-050-01
Construction Refer to Comp Book

Documentation Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References

PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s) 6, 7, 13
Struct.  162- 1- AB  PREPARED SOIL LAYER  SY

A= Material
1 (Finish Soil Layer)
2 (Organic Soil Layer) Note: by Permit only
3 (Blanket Soil Layer) Note: By Permit Only
B= Depth
1 (6") Standard
2 (12")
3 (Special Depth) A=2 or 3 only

Notes

173- 71-
DRILLING HOLES FOR PRESSURE GROUTING

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

Notes

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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
<tr>
<td>Forms</td>
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</tr>
<tr>
<td></td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
</tr>
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<td>Construction</td>
</tr>
</tbody>
</table>

References

PPM Chapter
Other
Standards
Specifications

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

TRNS*PORT Category (DRAFT FIELD):  0200  Roadway

Status

Struct.  173- 71-  DRILLING HOLES FOR PRESSURE GROUTING  EA

Notes

173- 76-
GROUT PIPE INSTALLATION

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

Notes

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.
### 173- 76- GROUT PIPE INSTALLATION

**Unit:** CY; M3  
**Accuracy:** 10th of a Cubic Yard; 10th of a Cubic Meter  
**PlanQuantity?**  

### Notes
- Contact the State Structures Design Office prior to using this item.
- 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.

### Related Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong></td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td></td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
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<td>Refer to Comp Book</td>
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### Documentation

<table>
<thead>
<tr>
<th>Item</th>
<th>Design</th>
<th>Construction</th>
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</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
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</tbody>
</table>

### References

<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td><strong>Standards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Plan Detail and/or Tech Spec Required

- SHTabQuant COMP 700-050-03
- Refer to Comp Book

---

### 173- 77- SUBSURFACE PRESSURE GROUTING

- **Unit:** CY; M3  
- **Accuracy:** 10th of a Cubic Yard; 10th of a Cubic Meter  
- **PlanQuantity?**  

### Notes
- Contact the State Structures Design Office prior to using this item.
- 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.

### Related Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong></td>
<td>Design</td>
<td>SHTabQuant</td>
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<tr>
<td><strong>Construction</strong></td>
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<td>COMP 700-050-04/07</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
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<td>Refer to Comp Book</td>
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### Documentation

<table>
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<th>Design</th>
<th>Construction</th>
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</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
<td></td>
</tr>
<tr>
<td><strong>Construction</strong></td>
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### References

<table>
<thead>
<tr>
<th>Item</th>
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<th>Other</th>
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<tbody>
<tr>
<td><strong>Standards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Plan Detail and/or Tech Spec Required

- SHTabQuant COMP 700-050-04/07
- Refer to Comp Book
**Basis of Estimates**

**2008 Edition**

**May 28, 2008**

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

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

**Status**

**Struct. 173-77- A**

SUBSURFACE PRESSURE GROUTING CY

A = Grout Material
1 (Sand-Cement)
2 (Sand Cement with Calcium Chloride) CaCl₂
3 (Cement Slurry)

**Notes**

**175-1- RESEATING CONCRETE PAVEMENT**

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M²</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Notes**

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.

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**Related Items**

Required | Recommended
---|---
Design | SHTabQuant | COMP 700-050-01
Construction | Refer to Comp Book |

**Documentation**

Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s) 6, 13

**180-70- STABILIZED SUBBASE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M²</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Notes**

Valid through 6-30-2008. For projects with asphalt surfaces, refer to Section 160 items. For projects with concrete surfaces, contact Pavement Design for Developmental Specification.

**Details**

Refer to specifications.
**180-70-** STABILIZED SUBBASE

**Unit:** SY; M²  
**Accuracy:** Square Yard; Square Meter  
**Plan Quantity:** Yes

**Notes:**
Valid through 6-30-2008. For projects with asphalt surfaces, refer to Section 160 items. For projects with concrete surfaces, contact Pavement Design for Developmental Specification.

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
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<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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<tr>
<td>Documentation</td>
<td></td>
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<tr>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
</tr>
<tr>
<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
</tr>
<tr>
<td>References</td>
<td></td>
</tr>
<tr>
<td>PPM Chapter</td>
<td></td>
</tr>
<tr>
<td>Other</td>
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</tr>
<tr>
<td>Standards</td>
<td></td>
</tr>
<tr>
<td>Specifications</td>
<td></td>
</tr>
</tbody>
</table>

**Prep & Doc Manual Chapter(s):** 6, 7, 13
TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct.  180- 72-  STABILIZED SUBBASE, 6" SY

Notes

210- 1- AA  REWORKING LIMEROCK BASE

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M2</th>
<th>Accuracy</th>
<th>Square Yard; Square Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

Notes

Details
Rework (or rework and widen) the existing rock base, by adding new limerock material as required by the plans. Construct adjacent turnouts, entirely with new limerock.

Related Items

Forms

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-01</td>
</tr>
</tbody>
</table>

Documentation

Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References

PPM Chapter
Other
Standards
Specifications

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

---

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status  Inactive Structure

Struct.  210- 1- AA  REWORKING LIMEROCK BASE  SY

AA = Thickness
1 (6")
2 (8" D-CSE)
3 (10" D-CSE)
4 (Var. Thickness)
5 (5")
6 (12" D-CSE)
7 (9" D-CSE)
8 (4")
9 (3")
11 (14" T-CSE)
12 (16" T-CSE)
13 (11" D-CSE)
14 (Var. Thickness 4 1/2" Avg.)
15 (Var. Thickness 12 1/2" Avg.)
16 (7")
17 (13" D-CSE)
18 (14" D-CSE)
19 (Var. Thickness 7 1/2" Avg.)
### Notes

#### 210- 2-
**LIMEROCK, NEW MATERIAL**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY; M3</td>
<td>Cubic Yard; Cubic Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**
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.

**Required**

**Recommended**

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-04</td>
</tr>
<tr>
<td>Construction</td>
<td>700-050-54</td>
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**Documentation**

<table>
<thead>
<tr>
<th>Design</th>
<th>Location in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>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.</td>
</tr>
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</table>

**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Other</th>
<th>Standards</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>6, 7, 13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Status**

**Inactive Structure**

**Struct.** 210- 2- LIMEROCK, NEW MATERIAL CY

---

### Notes

#### 220- 1- AA
**SHAPE & COMPACT BASE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY; M2</td>
<td>Square Yard; Square Meter</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**

**Details**

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-01</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
</tbody>
</table>

**Documentation**

| Design | Location in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |

---

Details and Structure: Items 100 to 1999
### Construction

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

### Notes

Code Same As 220-70-AAA

### 220-70- AA

<table>
<thead>
<tr>
<th>SHAPE &amp; COMPACT EXISTING BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit</strong></td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
</tr>
<tr>
<td><strong>PlanQuantity?</strong></td>
</tr>
</tbody>
</table>

**Notes**
Refer to specifications for correct usage; consider optional base pay item when possible.

Verify with construction prior to 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 | SHTabQuant
Construction | Refer to Comp Book

**Documentation**

**Design**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**
PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

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

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

### Status

**Struct.** 220-70-AA
SHAPE & COMPACT EXISTING BASE
SY

AA = Thickness

1 (6")
2 (8” D-CSE)
3 (10" D-CSE)
4 (Var. Thickness)
5 (5")
6 (12" D-CSE)
7 (9" D-CSE)
8 (4")
9 (3")
11 (14" T-CSE)
12 (16" T-CSE)
13 (11" D-CSE)
14 (Var. Thickness 4 1/2" Avg.)
15 (Var. Thickness 12 1/2" Avg.)
16 (7")
17 (13" D-CSE)
18 (14" D-CSE)
19 (Var. Thickness 7 1/2" Avg.)
20 (Var. Thickness 9" Avg.)
21 (4 1/2")
22 (9 1/2")

Notes
D-CSE = Double Course
T-CSE = Triple Course

230- 2-

LIMEROCK MATERIAL

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

Notes
Refer to specifications for correct usage; consider optional base pay item when possible.

Details

Related Items
Required SHTabQuant
Recommended COMP 700-050-04

Forms

Construction

Design 700-050-54

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s) 6, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status Inactive Structure

Struct. 230- 2- LIMEROCK MATERIAL CY

Notes

285-7AA-

OPTIONAL BASE

Unit SY; M2 Accuracy Square Yard; Square Meter PlanQuantity? yes

Details and Structure: Items 100 to 1999
**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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
</tr>
</tbody>
</table>

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 6, 9, 13

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

**Status**

Struct. 285-7AA- OPTIONAL BASE SY

AA = Is 01 Thru 15 which indicates Base Group, as shown on Index 514

**Notes**

**286- 1- TURNOUT CONSTRUCTION**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY; M2</td>
<td>Square Yard; Square Meter</td>
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</tr>
</tbody>
</table>

**Notes**

**Details**

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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
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<td>Forms</td>
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<td>SBTURN; SBTurnouts</td>
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<tr>
<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
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<tr>
<td></td>
<td>Construction</td>
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### Turnout Construction - Asphalt

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<tr>
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<th>PlanQuantity?</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>TN; MT</td>
<td>10th of a Metric Ton</td>
<td>no</td>
<td></td>
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</table>

**Details**

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**

**Forms**
- **Design**: SBTURN; SBTurnouts
- **Construction**: 700-050-06

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### Asphalt Treated Permeable Base

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<tr>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>CY; M3</td>
<td>Cubic Yard; Cubic Meter</td>
<td>yes</td>
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</table>

**Details**

**Related Items**

**Forms**
- **Design**: SHTabQuant
- **Recommended**: COMP 700-050-04
Standards Index No. 287
Specifications

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

Status Inactive Structure
Struct. 287-1- ASPHALT TREATED PERMEABLE BASE CY

Notes

288-001- CEMENT TREATED PERMEABLE BASE

Unit CY; M3 Accuracy Cubic Yard; Cubic Meter PlanQuantity? yes

Notes
Details
Related Items Required Recommended
Forms Design SHTabQuant COMP 700-050-04
Construction 700-050-56

Documentation Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

Status Inactive Structure
Struct. 288-001- CEMENT TREATED PERMEABLE BASE CY

Notes

327-70- AA MILLING EXISTING ASPHALT PAVEMENT

Unit SY; M2 Accuracy Square Yard; Square Meter PlanQuantity? yes

Details and Structure: Items 100 to 1999
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
<table>
<thead>
<tr>
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<th>Recommended</th>
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<tbody>
<tr>
<td>Forms</td>
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<tr>
<td>Design</td>
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</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter
Other
Specifications

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 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)
24 (9" Avg. Depth)
25 (8" Avg. Depth)
26 (4 3/4" Avg. Depth)

Notes
Details and Structure: Items 100 to 1999
### 334- 1- AA SUPERPAVE ASPHALTIC CONCRETE

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<tr>
<th>Unit</th>
<th>TN; MT</th>
<th>Accuracy</th>
<th>10th of a Ton; 10th of a Metric Ton</th>
<th>PlanQuantity?</th>
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</tr>
</thead>
</table>

**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**

<table>
<thead>
<tr>
<th>Forms</th>
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<tr>
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<td>COMP 700-050-06</td>
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<tr>
<td>Construction</td>
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**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

Approved automated asphalt plant tickets shall be used and submitted as Department records; in case of a malfunction of the automated system, the data shall be hand written on blank plant tickets. Transfer quantity to computation book.

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 13

**TRNSPORT Category (DRAFT FIELD):** 0200 Roadway

**Status**

**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)

**Notes**

The maximum spread rate used for estimating quantities are as follows:

\[ a = 5 \times FC-5(Rubber): 80 \text{ lb/}yd^2 \ (44 \text{ kg/m²}) \text{; recommended thickness 3/4 in (20mm)} \]

---

**Details and Structure: Items 100 to 1999**

Page 67 of 451
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.

<table>
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<tbody>
<tr>
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<tbody>
<tr>
<td>Approved automated asphalt plant tickets shall be used and submitted as Department records; in case of a malfunction of the automated system, the data shall be hand written on blank plant tickets. Transfer quantity to computation book.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>References PPM Chapter</th>
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<td>Standards</td>
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<td>Specifications</td>
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<td>11, 13</td>
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<table>
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<tr>
<td>337- 7- AA ASPHALTIC CONCRETE FRICION COURSE</td>
</tr>
<tr>
<td>TN</td>
</tr>
</tbody>
</table>

AA = Type
5 (FC-5, Rubber)
22 (FC-5, PG 76-22)

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)

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)

Notes
Valid through 6-30-2007:
AA= Type
6 (FC-12.5, Rubber)
7 (FC-9.5, Rubber)
20 (FC-12.5, PG 76 22)
21 (FC-9.5, PG 76-22)
### 339-1 MISCELLANEOUS ASPHALT PAVEMENT

**Unit**: TN; MT  
**Accuracy**: 10th of a Ton; 10th of a Metric Ton  
**PlanQuantity?**: no

**Notes**
- 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**

<table>
<thead>
<tr>
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<th>Recommended</th>
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<tbody>
<tr>
<td><strong>Forms</strong></td>
<td><strong>Design</strong></td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>700-050-56</td>
</tr>
</tbody>
</table>

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Approved automated asphalt plant tickets shall be used and submitted as Department records; in case of a malfunction of the automated system, the data shall be hand written on blank plant tickets. Transfer quantity to computation book.

**References**
- **PPM Chapter**
- **Other**
- **Standards**: Index No. 400 for guardrail applications
- **Specifications**

- **Prep & Doc Manual Chapter(s)**: Contact Final Estimates

---

### 340- OPEN GRADED CRACK RELIEF LAYER

**Unit**: TN; MT  
**Accuracy**: 10th of a Ton; 10th of a Metric Ton  
**PlanQuantity?**: no

**Notes**
- HOLD for Future Development; refer to 906-340- item for use with developmental specification

**Details**
- Contact the State Materials Office for assistance with this office.

**Related Items**

<table>
<thead>
<tr>
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<th>Recommended</th>
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<tbody>
<tr>
<td><strong>Forms</strong></td>
<td><strong>Design</strong></td>
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<tr>
<td><strong>Construction</strong></td>
<td>Refer to Comp Book</td>
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**Documentation**
- **Design**
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

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

---

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

**Status:** Future Effective Date

**Struct.** 340- OPEN GRADED CRACK RELIEF LAYER TN

**Notes**

### 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. Jobs let through 6/04: When this item is used, item 2300-1-19 must be used. Jobs let 7/04 and later: Payment for bituminous material (rubber binder) is incidental to this item.

**Related Items**

**Required**

**Recommended**

**Forms**

**Design**
SHTabQuant

**Construction**
Refer to Comp Book

**Documentation**

**Design**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

PPM Chapter

Other

Standards

Specifications

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

---

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

**Status**

**Struct.** 341- 70- ASPHALT RUBBER MEMBRANE INTERLAYER SY

**Notes**

### 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.

**Related Items**

**Required**

**Recommended**

---

Details and Structure: Items 100 to 1999
Standards Index No. 305, 560
Specifications

Struct. 350-2- AA CEMENT CONCRETE PAVEMENT, REINFORCED SY

Unit SY; M2 Accuracy Square Yard; Square Meter PlanQuantity? yes

Notes
Details Consists of placement of reinforced Portland Cement Concrete pavement and also of construction of pavement joints.
For colored concrete, see 523 items.

### Related Items

#### Required

- **Forms**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

#### Recommended

- **Documentation**
  - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
  - Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

- **Specifications**
  - Index No. 305, 560

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

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

### Status

- **Struct.** 350-2-AA
  - CEMENT CONCRETE PAVEMENT, REINFORCED SY
  - AA = thickness
    - 1 (6”)
    - 2 (7”)
    - 3 (8”)
    - 4 (9”)
    - 5 (10”)
    - 6 (3”)
    - 7 (2”)
    - 9 (Var. 7 1/2” Avg.)
    - 10 (12”)
    - 11 (13”)
    - 12 (11”)

### 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.

### 350-72-

**CLEANING & RESEALING JOINTS IN CONCRETE PAVEMENT**

- **Unit:** LF; M
- **Accuracy:** Linear Foot; 10th of a 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

- **Forms**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

#### Recommended

- **Documentation**
  - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).
Standards Index No. 305
Specifications
Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct. 350-72- CLEANING & RESEALING JOINTS IN CONCRETE PAVEMENT LF

Notes
Details

350-78- CLEANING AND SEALING RANDOM CRACKS IN CONCRETE PAVEMENT

Unit LF; M1 Accuracy Linear Foot; 10th of a 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
Forms Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Documentation Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct. 350-78- CLEANING AND SEALING RANDOM CRACKS IN CONCRETE PAVEMENT LF

Notes

352-70- GRINDING CONCRETE PAVEMENT

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

Notes Details

This item to be used on existing concrete pavement only. Grinding of new concrete
pavement included in the bid price for Cement Concrete Pavement. DO NOT use on bridge structures; refer to Section 400 items.

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
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**References**

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

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

**Struct.** 352-70- GRINDING CONCRETE PAVEMENT SY

---

353-70- CONCRETE PAVEMENT SLAB REPLACEMENT

<table>
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<tr>
<th>Unit</th>
<th>CY; M3</th>
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<tr>
<td>PlanQuantity?</td>
<td>no/yes*</td>
</tr>
</tbody>
</table>

**Notes**

Effective July 2008 letting, measurement will be plan quantity, per specification.

**Details**

For use on existing Concrete Pavement roadways only.

NOTE: Method of measurement change, per specifications. For projects let through 6/2008, method of measurement will be quantity, as placed. For projects let 7/2008 and later, method of measurement will be by plan quantity.

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
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**Documentation**

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**References**

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<td>Index No. 305, 308</td>
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</table>

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

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

**Struct.** 353-70- CONCRETE PAVEMENT SLAB REPLACEMENT CY
BRIDGE APPROACH EXPANSION JOINT

Unit: LF; M1  Accuracy: Linear Foot; 10th of a Meter  PlanQuantity?: yes

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.

Required Standards:
Index No. 306
Specifications
Struct. 370-1- BRIDGE APPROACH EXPANSION JOINT LF

Notes:
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

NOTES BELOW ARE FOR CLASS NS, I, II, III, IV, and V, VI Concrete:
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.

Misc Concrete: Estimate 5 CY (5 M3) minimum

Precast Deck Overlay: consists of Class IV with steel fiber reinforcement and low shrinkage admixtures. Coordinate Use of this item with the State Structures Design Office. Requires modified specifications.

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.

Superstructure Light-Weight Concrete requires plan notes and/or a TSP for unit weight, aggregate requirements, etc.

Low Shrink Deck Concrete requires a TSP.

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 1.4.2.

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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
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</table>

Documentation

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

References

PPM Chapter

Other

Mass Concrete SDG’s 3.9, Class and Admixtures SDG’s 1.4.2, Cofferdams and Seals SDG’s 3.7.

Standards

Index Numbers:
APPROACH SLABS: 20900, 20910
CIP Retaining Wall: 5100
CULVERTS: 290
ENDWALLS: 245, 250, 251, 252, 253, 255, 261, 264, 266, 282, 295
MISC: 270, 280, 286, 287
GRAVITY WALL: 520
RET WALLS: 5000 series

Specifications 346, 400

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

TRNS*PORT Category (DRAFT FIELD): 100 or 200 Structures or Roadway

Status
Struct. 400- ALL Class NS, I, II, III, IV, V, VI Details

AAA = Applications, Valid Class(es)
1 (Culverts) Class I, II, IV
2 (Endwalls) Class I, II, IV
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) Class NS: Gravity Wall, Index 520; Class II: Gravity Wall w/ junction slab, Index 520
12 (Trench Slabs) Class II
13 (Concrete Steps) Class NS: Index 521 **New item effective 7/09 letting***
15 (Miscellaneous) **Valid through ????**
20 (Seal) Class III
22 (Superstructure Closure Joint) Class ??
25 (Mass- Substructure) Class ??
39 (Precast Segmental Superstructure) Class IV, V, VI
40 (Precast Segmental Substructure) Class IV, V
41 (Precast Deck Overlay) Class IV with steel fiber reinforcement & low shrink admixtures
42 (Substructure Self-Consolidating Concrete) Class VI
43 (Superstructure Self-Consolidating Concrete) Class VI
104 (Superstructure Light-Weight) Class ??
105 (Superstructure Special) Class ??
106 (Microsilica Substructure) Class V
107 (Microsilica Substructure-Mass) Class V
239 (Low Shrink Deck) Material Only, Class V

Notes

400- 0-AAA CLASS NS CONCRETE

<table>
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<tr>
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<td>PlanQuantity?</td>
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Notes

Details
Refer to 400- ALL for details on all classes of concrete

Related Items
Required
Design
SHTabQuant
Recommended
COMP 700-050-04/07
Construction
Refer to Comp Book

Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

<table>
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<td>Mass Concrete SDG’s 3.9, Class and Admixtures SDG’s 1.4.2, Cofferdams and Seals SDG’s 3.7.</td>
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**TRNS*PORT Category (DRAFT FIELD):** 100 or 200 Structures or Roadway

### Status

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**AAA** = Class 0 Applications
- 11 (Retaining Walls) Gravity Wall, Index 520 **Effective 7/2009**
- 13 (Concrete Steps) Index 521 **Effective 7/2009**

### Notes

- **Details:** Refer to 400-ALL for details on all classes of concrete

### Related Items

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### References

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<td>Other</td>
<td>Mass Concrete SDG’s 3.9, Class and Admixtures SDG’s 1.4.2, Cofferdams and Seals SDG’s 3.7.</td>
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<td>Standards</td>
<td>Refer to 400-ALL for details on all classes of concrete</td>
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<td>346, 400</td>
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**TRNS*PORT Category (DRAFT FIELD):** 100 or 200 Structures or Roadway

### Status

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<th>CLASS I CONCRETE</th>
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**AAA** = Class I Applications
- 1 (Culverts)
- 2 (Endwalls)
- 11 (Retaining Walls) Gravity Wall, Index 520 **Valid through 6-30-2009; replaced by Class NS Gravity Wall**
- 15 (Miscellaneous) **Valid through ??**

### Notes

- **Details:** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).
400- 2-AAA  CLASS II CONCRETE

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Notes
Details
Refer to 400- -ALL for details on all classes of concrete
Related Items
Required
Refer to Comp Book
Recommended
415- 1- A
Forms
Design
SHTabQuant
Construction
COMP 700-050-04/07
Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Mass Concrete SDG’s 3.9, Class and Admixtures SDG’s 1.4.2, Cofferdams and Seals SDG’s 3.7.
Specifications
346, 400

Prep & Doc Manual Chapter(s)

Struct. 400- 2-AAA  CLASS II CONCRETE  CY

AAA = Class II Applications
1 (Culverts)
2 (Endwalls)
4 (Superstructure)
5 (Substructure)
10 (Approach Slabs)
11 (Retaining Walls) Gravity Wall w/ junction slab, Index 520
12 (Trench Slabs)
15 (Miscellaneous) **Valid through ??**

Notes

400- 3-AAA  CLASS III CONCRETE

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Notes
Details
Refer to 400- -ALL for details on all classes of concrete
Related Items
Required
Recommended
415- 1- A
Forms
Design
SHTabQuant
Construction
COMP 700-050-04/07
Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction
Record final quantity on the tabulation sheet (plans) or computation form (comp book).
### Class III Concrete

**Unit:** CY; M3  
**Accuracy:** 10th of a Cubic Yard; 10th of a Cubic Meter  
**PlanQuantity:** yes/no

**Related Items**

- **Required**  
  - Design: SHTabQuant  
  - Construction: Refer to Comp Book

- **Recommended**  
  - Design: COMP 700-050-04/07

**Form:** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.2, Cofferdams and Seals SDG's 3.7.

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

- Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.2, Cofferdams and Seals SDG's 3.7.

### Class IV Concrete

**Unit:** CY; M3  
**Accuracy:** 10th of a Cubic Yard; 10th of a Cubic Meter

**Related Items**

- **Required**  
  - Design: SHTabQuant  
  - Construction: Refer to Comp Book

- **Recommended**  
  - Design: COMP 700-050-04/07

**Form:** Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.2, Cofferdams and Seals SDG's 3.7.

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

- Mass Concrete SDG's 3.9, Class and Admixtures SDG's 1.4.2, Cofferdams and Seals SDG's 3.7.
41 (Precast Deck Overlay) w/admixtures

### 400- 6- PRECAST ANCHOR BEAMS

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
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</thead>
</table>

**Notes**
- Intended for Precast Tie Back anchors for use in anchored wall systems. Include in anchored wall quantity block in plans.

**Related Items**
- **Required**
  - **Design**: SHTabQuant
  - **Construction**: Refer to Comp Book
- **Recommended**
  - **Design**: COMP 700-050-03
  - **Construction**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Related Items**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

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

**TRNS**PORT Category (DRAFT FIELD): 100 or 200 Structures or Roadway

**Status**
- **Struct.**: 400- 6-
- **PRECAST ANCHOR BEAMS**: EA

---

### 400- 7- BRIDGE DECK GROOVING- DECK THICKNESS LESS THAN 8.5"

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<th>Unit</th>
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<th>Accuracy</th>
<th>Square Yard; Square Meter</th>
<th>PlanQuantity?</th>
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</table>

**Notes**
- 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**
  - **Design**: SHTabQuant
  - **Construction**: Refer to Comp Book
- **Recommended**
  - **Design**: COMP 700-050-01
  - **Construction**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

**Related Items**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- **Construction**: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**
- PPM Chapter
- Other
  - SDG’s 4.2

---

Details and Structure: Items 100 to 1999
### Standards

### Specifications

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

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

#### Status

**Struct.** 400- 7-

**BRIDGE DECK GROOVING- DECK THICKNESS LESS THAN 8.5"**

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#### Notes

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### 400- 8-AAA CLASS V CONCRETE

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY; M3</td>
<td>10th of a Cubic Yard; 10th of a Cubic Meter</td>
<td>yes/no</td>
</tr>
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</table>

**Notes**

**Details**

Refer to 400- -ALL for details on all classes of concrete

**Related Items**

**Required**

**Recommended**

415- 1- A

**Forms**

**Design**

SHTabQuant

**Construction**

Refer to Comp Book

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

**PPM Chapter**

Mass Concrete SDG’s 3.9, Class and Admixtures SDG’s 1.4.2, Cofferdams and Seals SDG’s 3.7.

**Other**

**Standards**

Refer to 400- -ALL for details on all classes of concrete

**Specifications**

Plan Detail and/or Tech Spec Required

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

---

**TRNS*PORT Category (DRAFT FIELD):** 100 or 200 Structures or Roadway

#### Status

**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

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### Notes

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#### 400- 9-

**BRIDGE DECK GROOVING AND PLANING- DECK THICKNESS 8.5" or GREATER**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
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<tbody>
<tr>
<td>SY; M2</td>
<td>Square Yard; Square Meter</td>
<td>yes</td>
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Details and Structure: Items 100 to 1999
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
Forms
Required
Recommended
Design
SHTabQuant
COMP 700-050-01
Construction
Refer to Comp Book

Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter
SDG’s 4.2
Other

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

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

400- 9-
BRIDGE DECK GROOVING AND PLANING- DECK SY
THICKNESS 8.5" or GREATER

Notes

400- 16-AAA
Class VI Concrete

Unit
CY; M3
Accuracy
10th of a Cubic Yard;
10th of a Cubic Meter
PlanQuantity?

Details
Refer to 400- -ALL for details on all classes of concrete

Related Items
Forms
Required
Recommended
Design
415- 1- A
Construction
Refer to Comp Book

Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other

Specifications
Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)
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)

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
Forms Required Recommended
Design SHTabQuant COMP 700-050-01
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

400- 32-
CONCRETE FOR JOINT REPAIR

Unit CY; M3
Accuracy 10th of a Cubic Yard; 10th of a Cubic Meter
PlanQuantity? yes

Notes
Intended for rehabilitation or widening projects to repair or replace concrete deck at expansion joints. Include in Quantity Block in Plans.

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

<table>
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### Forms

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### Documentation

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### References

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### Standards

### Specifications

Plan Detail and/or Tech Spec Required

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

*TRNS*PORT Category (DRAFT FIELD): 0100 Structures

### Status

**Struct.** 400-32- CONCRETE FOR JOINT REPAIR CY

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### Notes

**400-60- A CATHODIC PROTECTION- ELECTRICAL WORK**

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**Notes**

This item is under development by the State Materials Lab. Contact the Materials Lab prior to using this item.

NOTE: 3 pay items (power, conduit, and equipment, as described below) are needed for a complete electrical system. Use with either 400-142, 455-81, or 457-71.

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

<table>
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### Forms

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<tbody>
<tr>
<td>SHTabQuantLS</td>
<td>COMP 700-050-05</td>
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</table>
### 400- 72- PRECAST BULKHEAD PANELS

**Unit**: SF; M2  
**Accuracy**: Square Foot; 10th of a Square Meter  
**PlanQuantity?**: yes

**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**  
**Forms**  
- **Required**: SHTabQuant  
- **Recommended**: COMP 700-050-01

**Documentation**  
- **Design**: Refer to Comp Book  
- **Construction**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

**References**  
- **PPM Chapter**: SDG’s 3.12.9 and Figure 3-13.

---

**Notes**

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

---

**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

---

**Documentation**

- **Construction**: Refer to Comp Book
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**

---

**Notes**

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

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<table>
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<th>Standards</th>
<th>Specifications</th>
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<th>PRECAST BULKHEAD PANELS</th>
<th>SF</th>
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### Notes

**400-91- DEWATERING FOR SPREAD FOOTINGS**

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<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
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#### 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, 415-1-4. 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

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<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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#### Documentation

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

#### References

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<th>Other Standards Specifications</th>
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### Notes

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**400-95- A COFFERDAM**

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<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

Details and Structure: Items 100 to 1999
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

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<td>400-  3- 20</td>
<td>COMP 700-050-03</td>
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Forms

- Design: SHTabQuant
- Construction: Refer to Comp Book

Documentation

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

References

- Standards: SDG’s 3.7.
- Specifications: Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct.  400- 95- A  COFFERDAM  EA

A =
1 (Bascule Pier)
2 (Control House)
3 (Special)

Notes

400- 97- COATING CONCRETE SURFACES- REHAB

Unit LS/SF; LS/M2  Accuracy Lump Sum (Square Foot); Lump Sum (Square Meter)  PlanQuantity? yes

Notes

Details

Intended on rehabilitation projects to apply coating systems onto existing concrete surfaces such as epoxy or bituminous protection coatings. Cost usually covers the labor. Material costs covered under separate pay item. Show location. Pay item note recommended.

Do not use with Item 400-143.

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.
payment are available in the contract documents to clearly define the work to be completed for payment under this item.

Related Items

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Plan Detail and/or Tech Spec Required

Notes

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Status

Struct. 400-97- COATING CONCRETE SURFACES- REHAB LS/SF

Notes

400-113- PRECAST BENT CAPS (END)

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<th>Unit</th>
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<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>yes</td>
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Details

Intended for prefabricated end bent caps (furnish and install). Include in End Bent Quantity Block in Plans. Address cost of connection to piles and flowable fill (or similar) required to fill under finished cap. Tech Spec or Plan note may be necessary to address connection to 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

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Documentation

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Details and Structure: Items 100 to 1999
### Specifications

**Plan Detail and/or Tech Spec Required**

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

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**Notes**

**400-114- PRECAST BENT CAPS (INT)**

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<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity? yes</th>
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**Details**

Intended for prefabricated bent caps (furnish and install). Include in Bent Cap Quantity Block in Plans. TSP or plan notes may be necessary to address connection to 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**

- Design: SHTabQuant
- Construction: Refer to Comp Book

**Recommended**

- Design: COMP 700-050-03

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

- PPM Chapter
- Other
- Standards
- Specifications

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**Notes**

**400-128- GROUTING PRECAST DECK PANELS (NON-SHRINK GROUT)**

<table>
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<tr>
<th>Unit</th>
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<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity? no</th>
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</table>

**Notes**

Details and Structure: Items 100 to 1999
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

<table>
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### Documentation

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### References

PPM Chapter: Design, Construction

### Notes

**400-134- EPOXY MATERIAL- STRUCTURES REHAB**

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<td>GA; LI</td>
<td>Gallon; Liter</td>
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**Valid through 12-31-08; replaced by 411-1**

Intended on rehabilitation projects for epoxy material to coat existing concrete surfaces. Cost of labor usually paid for under 400-97 or 400-135. Show location in plans. Pay item note recommended.

<table>
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<td>400-134, COMP 700-050-06</td>
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### Related Items

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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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### References

PPM Chapter: Design, Construction

Other
**400-134-**

**EPOXY MATERIAL- STRUCTURES REHAB**

- **Unit:** LF; M1
- **Accuracy:** Linear Foot; 10th of a Meter
- **PlanQuantity?** no
- **Valid through 12-31-08; replaced by 411-2

**Details**

Intended for Rehabilitation Projects to Epoxy Inject and Seal Cracks in Existing Concrete Components. Item intended to Cover Labor. Item 400-134 Intended to cover material. Show locations w/ quantity block in plans.

**Related Items**

- **Required:** 400-134
- **Recommended:**

**Notes**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

---

**400-135-**

**INJECT AND SEAL CRACKS- STRUCTURES REHAB**

- **Unit:** LF; M1
- **Accuracy:** Linear Foot; 10th of a Meter
- **PlanQuantity?** no
- **Valid through 12-31-08; replaced by 411-2

**Details**

Intended for Rehabilitation Projects to Epoxy Inject and Seal Cracks in Existing Concrete Components. Item intended to Cover Labor. Item 400-134 Intended to cover material. Show locations w/ quantity block in plans.

**Related Items**

- **Required:** 400-134
- **Recommended:**

**Notes**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

---

**400-136-**

**EPOXY CONCRETE OVERLAY- STRUCTURES REHAB**

- **Unit:** SY; M2
- **Accuracy:** Square Yard; Square Meter
- **PlanQuantity?** yes

**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

<table>
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<td>Construction</td>
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### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Struct.** 400-136- EPOXY CONCRETE OVERLAY- STRUCTURES REHAB SY

### Notes

**400-140- A NEOPRENE PAD REPLACEMENT**

<table>
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<th>Unit</th>
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<td>EA</td>
<td>Each</td>
<td>no</td>
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</table>

**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 400-417.

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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**Details and Structure:** Items 100 to 1999
Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)  6, 7, 13

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

Struct.  400-140- A  NEOPRENE PAD REPLACEMENT  EA

A =
1 (Bent / Pier)
2 (Abutment)
3 (Box Pier)
4 (Trestle Pier)
5 (V - Pier)

Notes

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)  6, 7, 13

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

Struct.  400-140- A  NEOPRENE PAD REPLACEMENT  EA

A =
1 (Bent / Pier)
2 (Abutment)
3 (Box Pier)
4 (Trestle Pier)
5 (V - Pier)

Notes

This item is under development by the Materials Lab. Contact State Materials Office, Corrosion Lab for assistance in use of this item. Intended for rehabilitation projects when galvanic or impressed current cathodic systems are used for mass concrete or structural components. Show locations in plans w/ quantity block.

Use Item 400-60 for Electrical Work associated with this item.

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

Forms

Required  400-60- A  Recommended
Design  SHTabQuant  COMP 700-050-01

Construction  Refer to Comp Book

Documentation

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)  6, 7, 13

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Details and Structure: Items 100 to 1999
**Basis of Estimates**

**Struct. 400-142- A  CATHODIC PROTECTION SYSTEM SF**

A =
1 (Raychem) valid through 6/30/06
2 (Eltech) valid through 6/30/06
3 (Zinc Aluminum Spray)
4 (Zinc Aluminum Sheets)
6 (Titanium Sheets) valid through 6/30/06
7 (Titanium Mesh) effective 7/1/06
8 (Titanium Bars) effective 7/1/06
9 (Other) effective 7/1/06

**Notes**

**400-143- CLEANING AND COATING CONCRETE SURFACES, CLASS 5**

| Unit | SF; M2 | Accuracy | Square Foot; 10th of a Square Meter | PlanQuantity? | yes |

**Notes**

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. Show locations in plans with quantity block.

**Related Items**

**Forms**

- Design:
  - Required: SHTabQuant
  - Recommended: COMP 700-050-01

- Construction:
  - Refer to Comp Book

**Documentation**

- Design:
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s): 6, 7, 13

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct. 400-143- CLEANING AND COATING CONCRETE SURFACES, CLASS 5 SF**

**Notes**

**400-145- A CLEANING CONCRETE SURFACE**

| Unit | LS/SF; LS/M2 | Accuracy | Lump Sum (Square Foot); Lump Sum (Square Meter) | PlanQuantity? | yes |

**Notes**

Details and Structure: Items 100 to 1999
**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**

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**Documentation**

**Design**

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

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):** 100 or 200 Structures or Roadway

**Status**

**Struct.** 400-145- A CLEANING CONCRETE SURFACE LS/SF

A = location
Blank (Above Water)
1 (Underwater)

**Notes**

**400-147- COMPOSITE NEOPRENE PADS**

**Unit** CF; M3

**Accuracy** 10th of a Cubic Foot; 100th of a Cubic Meter

**PlanQuantity?** no

**Notes**

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**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Design</th>
<th>SHTabQuant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>COMP 700-050-04</td>
<td></td>
</tr>
</tbody>
</table>

<table>
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<th>Design</th>
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<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
<td></td>
</tr>
</tbody>
</table>

---

Details and Structure: Items 100 to 1999
400-147-  COMPOSITE NEOPRENE PADS  

**TransPort Category (Draft Field):** 0100  Structures

**Status**

**Struct.**  400-147-  COMPOSITE NEOPRENE PADS  CF

**Notes**

**400-153-  NON SHRINK GROUT- MISCELLANEOUS**

**Unit** CF; M3  **Accuracy** 10th of a Cubic Foot; 100th of a 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**

- **Design** SHTabQuant
- **Construction** Refer to Comp Book

**Recommended**

- **Design** COMP 700-050-04
- **Construction**

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

Plan Detail and/or Tech Spec Required

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

**TransPort Category (Draft Field):** 0100  Structures

**Status**

**Struct.**  400-153-  NON SHRINK GROUT- MISCELLANEOUS  CF

**Notes**

---

**401-70-  RESTORE SPALLED AREAS**

**Unit** CF; M3  **Accuracy** 10th of a Cubic Foot;  **PlanQuantity?** no

Details and Structure: Items 100 to 1999
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.

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.

Required

Recommended

Standards

Specifications

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)

References

PPM Chapter
Other
Standards
Specifications

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

Notes

TRNS**PORT Category (DRAFT FIELD): 0100 Structures

Related Items

Forms

Design SHTabQuant COMP 700-050-04

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

Status

Struct. 405-70- A LATEX MODIFIED PORTLAND CEMENT CONCRETE
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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
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<tr>
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<td>Construction</td>
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</tr>
<tr>
<td>References</td>
<td>PPM Chapter</td>
<td></td>
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<tr>
<td></td>
<td>Other</td>
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<td>Specifications</td>
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</table>

Plan Detail and/or Tech Spec 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)

---

**407-1-AB**  PRECAST THREE SIDED CULVERT

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>Plan Quantity?</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**

Per specifications, 3 sided box culverts are not an equivalent substitution for Precast Concrete Box Culverts. Refer to PPM for selection and design criteria.

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
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<td>Design</td>
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<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
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<td>Documentation</td>
<td>Design</td>
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<tr>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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<tr>
<td>References</td>
<td>PPM Chapter</td>
<td>Vol 1, Chapter 33</td>
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<tr>
<td></td>
<td>Specifications</td>
<td></td>
</tr>
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</table>

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

**TRNS*PORT Category (DRAFT FIELD)**: 100 or 200 Structures or Roadway

**Status**

Details and Structure: Items 100 to 1999
Struct. 407-1-AB PRECAST THREE SIDED CULVERT LF

\[A= \text{Span (Total width of culvert when multiple barrels)}
\]
1 (up to 20 ft)
2 (20-29 ft)
3 (30-39 ft)
4 (40-49 ft)
5 (50 ft or greater)

\[B= \text{Height}
\]
1 (up to 10 ft)
2 (10 ft or greater)

Notes

411-1- EPOXY MATERIAL

Unit GA; LI Accuracy Gallon; Liter PlanQuantity? no

Notes Effective 1/2009 letting; replaces 400-134. Refer to Estimates Bulletin 08-02.

Details Intended for use on rehabilitation projects for epoxy material to cover existing concrete surfaces. Cost of labor paid under 411-2. Show location(s) in the plans.

Related Items Required Recommended

Forms Design

Documentation Design

References PPM Chapter

Summary

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 411-1- EPOXY MATERIAL GA

Notes

411-2 INJECT AND SEAL CRACK

Unit LF; M1 Accuracy Linear Foot; 10th of a Meter


Details Intended for use on rehabilitation projects for epoxy material to cover existing concrete surfaces. Cost of epoxy material paid under 411-1. Show location(s) in the plans.

Related Items Required Recommended

Forms Design

Documentation Design

References PPM Chapter

Specifications

Related Items

Forms

Documentation
## 413-149- PENETRANT SEALER

<table>
<thead>
<tr>
<th>Notes</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
<tr>
<td>413-154</td>
<td>413-154</td>
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**Forms**

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<td>COMP 700-050-06</td>
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**Documentation**

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<tr>
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</tbody>
</table>

## 413-151- METHACRYLATE MONOMER

<table>
<thead>
<tr>
<th>Notes</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

## TRNS*PORT Category (DRAFT FIELD):

- **Struct. 411-2**: INJECT AND SEAL CRACK LF
- **Struct. 413-149-**: PENETRANT SEALER GA
- **Struct. 413-151-**: METHACRYLATE MONOMER GA
### 413-154 - CLEANING AND SEALING CONCRETE SURFACES: PENETRANT SEALER OR METHACRYLATES

<table>
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<tr>
<th>Unit</th>
<th>SF; M2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Square Foot; 10th of a Square Meter</td>
</tr>
</tbody>
</table>

**Notes**

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**

<table>
<thead>
<tr>
<th>Required</th>
<th>413-149 or 413-151</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-01</td>
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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
</tbody>
</table>

**Documentation**

| Design                  | Refer to Comp Book |
|                        |                    |

**Construction**

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

**References**

- PPM Chapter
- Other
- Standards
- Specifications

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

**TRNS*PORT Category (DRAFT FIELD):** 100 or 200 Structures or Roadway

**Status**

**Struct.** 413-154 - CLEANING AND SEALING CONCRETE SURFACES: PENETRANT SEALER OR METHACRYLATES

**Details and Structure:** Items 100 to 1999
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).

Related Items

Required Recommendation

Forms
Design
SHTabQuant
COMP 700-050-07

Construction
Refer to Comp Book

Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

Specifications

Reference

ENDWALLS: 295
MISC: Index 280 for guard at pipe end

Other

TPM Chapter

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 100 or 200 Structures or Roadway

Status

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)

Notes

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**

**Forms**
- Design: SHTabQuant

**Construction**
- Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

**Notes**
- Plan Detail and/or Tech Spec Required
- Prep & Doc Manual Chapter(s): 7, 13

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

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<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>100 or 200</td>
<td>Structures or Roadway</td>
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</table>

**Status**

**Struct.**

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</table>

**REINFORCING STEEL- STAINLESS**

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<th>A</th>
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<tbody>
<tr>
<td>1 (Roadway)</td>
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<tr>
<td>3 (Retaining Wall)</td>
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<tr>
<td>4 (Superstructure)</td>
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<tr>
<td>5 (Substructure)</td>
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<tr>
<td>6 (Miscellaneous)</td>
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<tr>
<td>7 (Sound Barrier Wall)</td>
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<tr>
<td>8 (Bulkhead)</td>
</tr>
<tr>
<td>9 (Approach Slabs)</td>
</tr>
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</table>

**Notes**

425- 1-AAB | INLETS

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>no</td>
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</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
</table>

Details and Structure: Items 100 to 1999
Standards


Specifications

*Selected Items may require Tech Spec and/or Plan Detail

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 (Dt Bot Type A)
51 (Dt Bot Type B)
52 (Dt Bot Type C)
53 (Dt Bot Type C Mod) B not 9
54 (Dt Bot Type D)
55 (Dt Bot Type E)
56 (Dt Bot Type F)
57 (Dt Bot Type G)
58 (Dt Bot Type H)
59 (Dt Bot Type I)
60 (Dt Bot Type J)
61 (Dt Bot 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 |

<table>
<thead>
<tr>
<th>425- 2-AAB MANHOLES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit</strong></td>
</tr>
<tr>
<td>Notes</td>
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</tr>
<tr>
<td>Specifications</td>
</tr>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
</tr>
</tbody>
</table>

| TRNS*PORT Category (DRAFT FIELD): | 0200 Roadway |
| Status |
| 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 =  

---

Details and Structure: Items 100 to 1999
425- 3-AAB  JUNCTION BOX (DRAINAGE)

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

**Notes**
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**: SBDRST  
**Recommended**: COMP 700-050-03

**Forms**
**Design**: Refer to Comp Book

**Documentation**
**Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**
**PPM Chapter**:  
**Other**: Index No. 200, 201

**Specifications**
*Selected Items may require Tech Spec and/or Plan Detail

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

**Status**
**Struct.**: 425- 3-AAB  
**JUNCTION BOX (DRAINAGE)**  
**EA**

**AA =**
4 (P-7)  
6 (J-7)  
8 (Special)*  
9 (Utility)  
10 (Utility, Modify)  
11 (Utility, Remove)

**B =**
1 (<= 10')  
2 (> 10')  
3 (Partial)  
Refer to Index 201

**Notes**
### Consistency of Changing the Vertical Placement of an Existing Inlet

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong></td>
<td><strong>Design</strong></td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>Refer to Comp Book</td>
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**References**

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<tr>
<td>Index No. 200, 201, 210</td>
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**Notes**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

---

### Consistency of Changing the Vertical Placement of an Existing Manhole

**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.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
<tr>
<td><strong>Forms</strong></td>
<td><strong>Design</strong></td>
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<tr>
<td><strong>Construction</strong></td>
<td>Refer to Comp Book</td>
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**Documentation**

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<tbody>
<tr>
<td><strong>Design</strong></td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
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<tr>
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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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**References**

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<thead>
<tr>
<th>PPM Chapter</th>
<th>Design</th>
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</thead>
<tbody>
<tr>
<td>Index No. 200, 201</td>
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**Notes**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).
### Notes

**425- 6- VALVE BOX- ADJUST**

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
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**Details**

**Related Items**

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<tr>
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<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SBDRST</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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**Documentation**

| Design | Location in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

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<tr>
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<tr>
<td>Other</td>
<td>Standards</td>
<td>Specifications</td>
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**Prep & Doc Manual Chapter(s)**

| 7, 13 |

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

| 0200 Roadway |

**Struct.**

| 425- 6- | VALVE BOX- ADJUST | EA |

---

### Notes

**425- 8- DRAINAGE STRUCTURES, MISCELLANEOUS- ADJUST**

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
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**Related Items**

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<td>COMP 700-050-03</td>
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<tr>
<td>Construction</td>
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**Documentation**

| Design | Location in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

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<table>
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**Prep & Doc Manual Chapter(s)**

| 7, 13 |

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

| 0200 Roadway |

**Status**

Details and Structure: Items 100 to 1999
### Struct. 425-8-

**DRAINAGE STRUCTURES, MISCELLANEOUS-ADJUST**

**Notes**

#### 425-10- YARD DRAIN

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**Notes**

- **Details**: For use outside of the R/W. Refer to Design Standard for details.

**Related Items**

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**Forms**

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**: Index No. 282
- **Specifications**
- **Prep & Doc Manual Chapter(s)**: 7, 13

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

**Status**

| Struct. 425-10- | YARD DRAIN | EA |

**Notes**

### Struct. 425-11-

**DRAINAGE STRUCTURE- MODIFY EXISTING**

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**Notes**

- **Details**: Plan Detail and/or Tech Spec Required

**Related Items**

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**Forms**

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

**Plan Detail and/or Tech Spec Required**

**Details and Structure: Items 100 to 1999**
### 425-71- INLETS RELOCATION

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**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**

<table>
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</table>

**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

---

### 425-74- A MANHOLES AND INLETS, CLEANING & SEALING

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
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<tr>
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**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**

<table>
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<tbody>
<tr>
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<td>SBDRST</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
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</table>

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**Notes**

**Notes**

**Notes**

**Notes**

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

**Status**

**Struct.** 425-11- DRAINAGE STRUCTURE- MODIFY EXISTING EA

---

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

**Status**

**Struct.** 425-71- INLETS RELOCATION EA

---

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

**Status**

**Struct.** 425-74- A MANHOLES AND INLETS, CLEANING & SEALING EA

---

Details and Structure: Items 100 to 1999
**Construction**

Refer to Comp Book

**Documentation**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

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

---

**Struct.** 425-74- A MANHOLES AND INLETS, CLEANING & SEALING EA

A =
1 (<10')
2 (>10')

---

**425-78- INLET CAP, PRECAST**

| Unit | EA | Accuracy | Each | Plan Quantity? | no |

Details and Structure: Items 100 to 1999
### 425- 82- REPLACE GRATE

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

**Details**

Payment includes "...new grates, and removing and stockpiling existing grates", per specification.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
</table>

**Forms**

- **Design**
  - SBDRST
- **Construction**
  - Refer to Comp Book

**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Status**

**Struct.** 425- 82-

**Notes**

---

### 430- 94- AA DESILT PIPE

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

**Details**

Effective January 2007 letting; replaces 430-94A-BB

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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
</table>

**Forms**

- **Design**
  - SBSPMS; SBSDMES
- **Construction**
  - Refer to Comp Book

**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

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

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

**Status**

**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**

Inactive Structure; verify applicable standard index

to be used in accordance with Index 282 for back of sidewalk drainage only.

**Related Items**

**Required**
Design SBDRST
Construction Refer to Comp Book

**Recommended**
Specifications Index No. 282

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

PPM Chapter
Other
Standards Index No. 282
Specifications

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

---

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

**Status**

Inactive Structure

**Struct.** 430-150-ABB CAST IRON SOIL PIPE LF

A =
1 (Service) SV

BB = Standard Pipe Sizes
13 (4")

**Notes**

Selected items valid through 6-30-08. See pay item structure.

Show application, size, and material with class/gage/corrugation on the contract plans.

---

**Details and Structure: Items 100 to 1999**
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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
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</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

| Documentation | Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
|               | Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

| References | PPM Chapter | Drainage Manual |
|           | Standards   | Index No. 205 |

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

<table>
<thead>
<tr>
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<th>430-17A-BCC</th>
<th>PIPE CULVERT OPTIONAL MATERIAL</th>
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<tbody>
<tr>
<td>A</td>
<td>(Storm Sewer) SS valid through 6-30-08, replaced by A=5</td>
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</tr>
<tr>
<td>1</td>
<td>(Cross Drain) CD valid through 6-30-08, replaced by A=5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>(Gutter Drain) GD</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(Side Drain) SD</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>(Storm and Cross Drain) S/CD effective 7-1-08</td>
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<tr>
<td>B</td>
<td>Shape</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Round Shape)</td>
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</tr>
<tr>
<td>2</td>
<td>(Other –Elip/Arch)</td>
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<tr>
<td>CC</td>
<td>Standard Pipe Sizes (effective 1/1/2007)</td>
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</tr>
<tr>
<td>01</td>
<td>(up to 24&quot;)</td>
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</tr>
<tr>
<td>02</td>
<td>(25 to 36&quot;)</td>
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</tr>
<tr>
<td>03</td>
<td>(37 to 48&quot;)</td>
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</tr>
<tr>
<td>04</td>
<td>(49 to 60&quot;)</td>
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<tr>
<td>05</td>
<td>(61&quot; or greater)</td>
<td></td>
</tr>
</tbody>
</table>

Notes

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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SBDRST</td>
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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

Documentation

Design | Locate in plans. Summarize quantities by location on tabulation of
quantities sheet in the plans, or detail calculations in the computation book.

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

**Notes**
- 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.

**Related Items**
- **Required**
  - Design: SBDRST
  - Construction: Refer to Comp Book
- **Recommended**
  - Design: COMP 700-050-03
  - Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**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")
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

430-72A-BCC  PIPE, SLOTTED OR PERFORATED CULVERT

Unit  LF; M1  Accuracy  Linear Foot; 10th of a Meter  PlanQuantity?  yes

Notes

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
Forms  Design  SBSPMS; SBSDMES  COMP 700-050-03
Construction  Refer to Comp Book

Documentation

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References

PPM Chapter
Other
Standards  Index No. 205, 285

Details and Structure: Items 100 to 1999
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”)
34
38 (36”)
40 (42”)
41 (48”)
42 (54”)
43 (60”)
44 (66”)
45 (72”)

Notes

For cleaning and sealing existing joints only. Coordinate use of this item w/ State Drainage 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

<table>
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<th>Related Items</th>
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<td>Refer to Comp Book</td>
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<td>References PPM Chapter</td>
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Details and Structure: Items 100 to 1999
Specifications

Plan Detail and/or Tech Spec Required

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

TRNS*PORT Category (DRAFT FIELD): 0200  Roadway

Status    Inactive Structure

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")
44 (66")
45 (72")
47 (84")
48 (90")
49 (96")
50 (102")
51 (108")
52 (120")
53 (132")
54 (144")
55 (156")
56 (168")
57 (180")

Notes

430-830- PIPE FILLING AND PLUGGING

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

Notes

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 new pipe.)

Details

Required

Related Items

Forms  Design  SBDRST  COMP 700-050-04

Construction  700-050-56

Documentation  Design  Locate in plans. Summarize quantities by location on tabulation of

Details and Structure: Items 100 to 1999
quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Construction**

**References**

**PPM Chapter**

**Other**

**Specifications**

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

---

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

**Status**

**Struct.** 430-830- PIPE FILLING AND PLUGGING CY

---

### 430-860- A STORM SEWER TRENCH

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Notes**

**Details**

**Related Items**

**Required** | Design | SBDRST | Construction | Refer to Comp Book |
|---------------|--------|--------|---------------|--------------------|

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

**Construction**

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

**References**

**PPM Chapter**

**Other**

**Specifications**

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

---

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

**Status**

**Struct.** 430-860- A STORM SEWER TRENCH LF

A =

2 (2' Wide)
3 (3' Wide)
4 (4' Wide)
5 (5' Wide)
6 (6' Wide)
### FLAP GATES

**430-880- AA**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

Effective January 2007 sizes AA= 1 to 5 effective. Sizes AA=21 and greater valid through 12-31-06.

**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**

<table>
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<tr>
<td>Forms</td>
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**Documentation**

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**References**

- PPM Chapter
- Other
- Standards
- Specifications

**Plan Detail and/or Tech Spec Required**

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

7, 13

---

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

| 0200 Roadway |

**Status**

**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**

---

### DESILTING CONCRETE BOX CULVERT

**430-950-**

<table>
<thead>
<tr>
<th>Unit</th>
<th>CY; M3</th>
<th>Accuracy</th>
<th>Cubic Yard; Cubic Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
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</table>

**Notes**

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.

**Details**

**Related Items**

<table>
<thead>
<tr>
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**Documentation**

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</table>

---

Details and Structure: Items 100 to 1999
## 430-963- AA PVC PIPE FOR BACK OF SIDEWALK DRAINAGE

<table>
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<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
</table>

**Notes**

- Effective January 2007; replaces 430-96A-BCC
- For use according to Design Standard for back of sidewalk applications.
- For all other applications, including gutter drain, use Optional Pipe.

**Related Items**

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<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
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</table>

**Forms**

Refer to Comp Book

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

<table>
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<th>PPM Chapter</th>
<th>Other</th>
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<tr>
<td>Standards</td>
<td>Index 282</td>
</tr>
<tr>
<td>Specifications</td>
<td></td>
</tr>
</tbody>
</table>

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

---

## 430-970- PROTECTIVE PIPE BEDDING

<table>
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<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
</table>

**Notes**

- A= Size
  - 1 (4" diameter) Standard
  - 2 (Non-Standard diameter)

---

Details and Structure: Items 100 to 1999
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**

<table>
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<td>Construction</td>
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<tr>
<td>Documentation</td>
<td>Refer to Comp Book</td>
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<td>Construction</td>
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**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

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

---

**430-98A-BCC MITERED END SECTION**

<table>
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<tbody>
<tr>
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<td>Each</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>yes</td>
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</tbody>
</table>

**Notes**

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**

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>Refer to Comp Book</td>
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<tr>
<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
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</table>

**References**

PPM Chapter

Other

Standards

Specifications

Index No. 205, 272, 273
**Prep & Doc Manual Chapter(s)** 6, 13

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

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<tr>
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<tr>
<td>4 (Side Drain)</td>
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<tr>
<td>B = Shape</td>
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<tr>
<td>1 (Optional Round)</td>
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<tr>
<td>6 (Optional Other – Elliptical/Arch)</td>
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<td></td>
<td></td>
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<td>CC = Standard Round or Equivalent Other Shape Pipe Sizes</td>
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<td>27 (21&quot;)</td>
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**Notes**

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<tr>
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<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>Notes</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
<td>Effective January 2007 letting; replaces 431-1-ABB.</td>
<td>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</td>
</tr>
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specifications for current industry practices.

Related Items

<table>
<thead>
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<th>Recommended</th>
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<tbody>
<tr>
<td>Forms</td>
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Documentation

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References

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<td></td>
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<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>6, 7, 13</td>
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TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Notes

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

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

<table>
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<tbody>
<tr>
<td>Forms</td>
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<td>Design</td>
<td>SHTabQuant</td>
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Documentation

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Prep & Doc Manual Chapter(s)

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

Details and Structure: Items 100 to 1999
### Basis of Estimates

**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")  
11 (72")

**Notes**

**433- 1-**  CHEMICAL GROUT REPAIR- MANHOLE/INLET

| Unit | EA | Accuracy | Each | PlanQuantity? | no |
|------|----|----------|------|---------------|

**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**

- **Forms**
  - **Required**
    - Design: SHTabQuant
  - **Recommended**
    - Construction: COMP 700-050-03

- **Documentation**
  - **Design**
    - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - **Construction**
    - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

Plan Detail and/or Tech Spec Required

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

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

**Struct.** 433- 1-  CHEMICAL GROUT REPAIR- MANHOLE/INLET  EA

**Notes**

**435- 1- AB**  STRUCTURAL PLATE PIPE CULVERT

**Details and Structure:** Items 100 to 1999
### STRUCTURAL PLATE PIPE CULVERT

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
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</tr>
</thead>
</table>

**Notes**
Coordinate the use of this item with the State Drainage Office prior to requesting pay items.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
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<td>Design</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td></td>
</tr>
</tbody>
</table>

**Details**

A= Thickness
to be provided by State Drainage Office

B= Size
to be provided by State Drainage Office

**Notes**
Coordinate the use of this item with the State Drainage Office prior to requesting pay items.

### TRENCH DRAIN

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
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**Notes**
Use in accordance with Index 206

**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: SHTabQuant

Recommended: COMP 700-050-03

**Forms**

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</table>

**Documentation**

| Design | Location in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Other</th>
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</thead>
</table>
### Trench Drain LF

**A = size**
- 1 (15” Diameter Standard)
- 2 (Special)*

*Special may require Tech Spec and/or Plan Detail*  

---

### Underdrain LF

**Unit:** LF; M1  
**Accuracy:** Linear Foot; 10th of a Meter  
**PlanQuantity?:** no

**Notes:** 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**

**Forms**

- **Required:** Design
- **Recommended:** SBUNDR; SBUnderdrain
  - COMP 700-050-03
- **Construction:** Refer to Comp Book

**Documentation**

- **Design:** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction:** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards:** Index No. 286
- **Specifications**
- **Prep & Doc Manual Chapter(s):** 7, 13

---

### Underdrain Inspection Box

**Notes**

---

**Details and Structure:** Items 100 to 1999
**Notes**

**Details**

**Related Items**

**Forms**

**Documentation**

**References**

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

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

**Status**

**Struct.** 440-70-

**UNDERDRAIN INSPECTION BOX**

**Notes**

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**

**Forms**

**Documentation**

**References**

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

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

**Status**

**Struct.** 440-73-

**UNDERDRAIN OUTLET PIPE**

**Notes**

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.
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
6 (5")

### Vertical Drainage Wicks

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
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<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
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<td>Specifications</td>
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<tr>
<td>6, 7, 13</td>
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</table>

#### Status

| Struct. | 442- 70- | VERTICAL DRAINAGE WICKS | LF |

#### Notes

**References**

SBDRST COMP 700-050-03

Refer to Comp Book

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

Roadway

0200

---

### French Drain

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#### Related Items

<table>
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<tr>
<th>Standards Specifications Prep &amp; Doc Manual Chapter(s)</th>
</tr>
</thead>
</table>

Other

Refer to Comp Book

SBDRST COMP 700-050-03

6, 7, 13

**Notes**

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.
**Construction**

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

**References**

PPM Chapter

Other

**Standards**

Index No. 285

**Specifications**

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

---

**Struct.** 443-70-AA

**FRENCH DRAIN**

**LF**

AA = Size

3 (18")

4 (24")

5 (30")

6 (36")

7 (42")

8 (48")

9 (54")

---

**Notes**

Status

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

**PPM Chapter**

Other

**Standards**

Index No. 285

**Specifications**

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

---

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

---

**443-71-A**

**BALLAST ROCK**

**Unit**

CY; M3

**Accuracy**

Cubic Yard; Cubic Meter

**Plan Quantity?**

no

---

**Notes**

Status

**Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation 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.

**Related Items**

**Forms**

Required

Recommended

Design

SHTabQuant

COMP 700-050-04

Construction

700-050-54

**Documentation**

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

Other

**Standards**

Index No. 285

**Specifications**

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)
### WELL OPEN HOLE (DEEP)

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity?**: No

**Notes**

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**  
- **Design**: SHTabQuant  
- **Construction**: Refer to Comp Book

**Recommended**  
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

**Plan Details and/or Tech Spec Required**

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

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

**Struct.**  
- **444- 70- AA**  
  WELL OPEN HOLE (DEEP)  
  LF

**Notes**

- **AA** =  
  - 5 (12")  
  - 6 (14")  
  - 7 (16")  
  - 8 (18")  
  - 11 (24")  
  - 14 (30")  
  - 17 (36")

### WELL CASING (DEEP)

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity?**: No

**Notes**

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**  
- **Design**
- **Construction**

**Recommended**  
- **Design**: Refer to Comp Book

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

**Details and Structure**: Items 100 to 1999
### Topic No. 600-000-002

#### Basis of Estimates

**2008 Edition**  
**May 28, 2008**

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### Standards

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#### Notes

**Plan Details and/or Tech Spec Required**

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

---

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

### Status

**Struct.** 444- 71- AA  
WELL CASING (DEEP)  
LF

AA =
5 (12")
6 (14")
7 (16")
8 (18")
11 (24")
14 (30")
17 (36")

#### Notes

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

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### Standards

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<th>DEEP WELL CLEANING</th>
<th>LF</th>
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<td>5 (12&quot;)</td>
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</tr>
<tr>
<td>6 (14&quot;)</td>
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<td>7 (16&quot;)</td>
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<td>14 (30&quot;)</td>
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<td></td>
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<tr>
<td>17 (36&quot;)</td>
<td></td>
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**Notes**

- Status: Inactive Structure

---

**446- 1- A EDGEDRAIN DRAINCRETE**

<table>
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<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**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 Forms: Design SBEDDR; SBEEdgedrains
- Recommended Documentation: Design Refer to Comp Book
- Design Construction
- Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction
- Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- Standards: Index No. 286, 287
- Specifications

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

---

**446- 71- A EDGEDRAIN OUTLET PIPE**

**Notes**

- * non-standard may require Tech Spec and/or Plan Detail
Unit: Linear Foot; Meter

Accuracy: 10th of a Meter

PlanQuantity?: no

Notes:
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: SBEDDR; SBEdgedrains
Recommended: COMP 700-050-03

Details:
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References:
PPM Chapter
Other
Index No. 287
Specifications

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"
9 (non-standard) Note: standard per Index 287 is 4"

Notes:
* non-standard item may require Tech Spec and/or Plan Detail

448-73- PUMPING STATION

Unit: Lump Sum

Accuracy: Lump Sum

PlanQuantity?: yes

Notes:
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: SHTabQuantLS
Recommended: COMP 700-050-05

Details:
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References:
PPM Chapter
Other
Specifications
Specifications

Plan Detail and/or Tech Spec Required

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Struct. 448-73- PUMPING STATION LS/LS

Notes

Plan Detail and/or Tech Spec Required

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Specifications

Struct. 450-1-AAA PRESTRESSED BEAMS

<table>
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<tr>
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<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
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</table>

Notes

450-1-AAA PRESTRESSED BEAMS

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. 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

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TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 450-1-AAA PRESTRESSED BEAMS LF

AAA =
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

**450- 3- AB**  
**PRESTRESSED SLAB UNITS**

<table>
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<tr>
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<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
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**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**

**Forms**  
**Design**  
SHTabQuant  
COMP 700-050-03

**Construction**  
Refer to Comp Book

**Documentation**

**Design**  
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

**PPM Chapter**  
SDG's 4.4

**Other**  
SDG's 4.4

**Standards**  
SDG's 4.4

**Specifications**

Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):**  
0100 Structures

**Status**

**Struct.**  
450- 3- AB  
PRESTRESSED SLAB UNITS  
LF

A = Width

Details and Structure: Items 100 to 1999
## Prestressed Beam (Florida U-Beam)

**Unit:** LF; M1  
**Accuracy:** Linear Foot; 10th of a Meter  
**Plan Quantity:** yes

### Notes
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

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<td>COMP 700-050-03</td>
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<tr>
<td>Construction</td>
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### Documentation

| Design     | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

### References

- **PPM Chapter**
- **Other**
- **Standards** Index No. 20210 thru 20299
- **Specifications** Plan Detail and/or Tech Spec Required

### Prep & Doc Manual Chapter(s)

6, 7, 13

### TRNS*PORT Category (DRAFT FIELD):

0100 Structures

### Status

**Struct.** 450-4-AAA  
**PRESTRESSED BEAM (FLORIDA U-BEAM)**  
**LF**

AAA =

1 (48")
2 (60")
3 (96")
4 (72")
5 (36")
6 (54")
7 (57")

B = Thickness

1 (12")
2 (16")
3 (10")
4 (18")
5 (15")

---

Details and Structure: Items 100 to 1999
## Notes

### 450-82- BEAM REPAIR

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**Plan Quantity?**: yes

**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.

**Related Items**

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<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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| **Documentation** | 
| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |

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

**References**

- **PPM Chapter**:  
- **Other**:  
- **Standards**:  
- **Specifications**:  
- **Prep & Doc Manual Chapter(s)**: 7, 13

**TRNS*PORT Category (DRAFT FIELD)**: 0100  Structures

### Status

**Struct.** 450-82- BEAM REPAIR LF

---

## Notes

### 450-83- A BEAM REPAIR

**Unit**: EA  
**Accuracy**: Each  
**Plan Quantity?**: no

**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.

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| **Documentation** | 
| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |

---

Details and Structure: Items 100 to 1999
**Construction**
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Notes**
Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.** 450-88- AA  BEAM REPAIR  EA

A =
1 (Strand Splices)
2 (Bar Splices)

---

**450-88- AA  PRESTRESSED SLAB UNITS TRANSVERSELY POST TENSIONED**

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<td>Plan Quantity?</td>
<td>no</td>
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**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**

**Forms**

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**Documentation**

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<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Refer to Comp Book</td>
</tr>
<tr>
<td>Construction</td>
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**References**

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<thead>
<tr>
<th>PPM Chapter</th>
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<tbody>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Standards</td>
</tr>
<tr>
<td>Specifications</td>
</tr>
</tbody>
</table>

**Plan Detail and/or Tech Spec Required**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Details**

Details and Structure: Items 100 to 1999
451-70- AA  
**PRESTRESSED SOIL ANCHOR**

| Unit  | EA  | Accuracy | Each | PlanQuantity? | no |

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
</tr>
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</table>

**Documentation**

| Design   | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 100 or 200 Structures or Roadway

**Status**

**Struct.** 451-70- AA  PRESTRESSED SOIL ANCHOR  EA

AA =
Blank (F&I, With Standard Tests)
1 (Performance Test)
2 (Creep Test)

**Notes**
Intended to cover for segmental casting yard set-up costs. Required on all Precast Segmental Bridge Projects.

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Construction</td>
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**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Design</th>
<th>Construction</th>
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<tbody>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>6, 7, 13</td>
<td></td>
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</table>

**455- 2- A TREATED TIMBER PILING**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

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.
Standards
Specifications

Plan Detail and/or Tech Spec Required

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

TRNS*PORT Category (DRAFT FIELD):  100 or 200  Structures or Roadway

Status

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.

455-14- AA  CONCRETE SHEET PILING

Unit  LF; M1  Accuracy  Linear Foot; 10th of a Meter  PlanQuantity?  no

Notes

Details  Intended for concrete sheet pile walls. Show locations in plans. Include quantity block in plans.

Related Items

Forms

Required  Design  SHTabQuant  Recommended  COMP 700-050-03

Construction  Refer to Comp Book

Documentation

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter

Other  Standards  Index 20400 thru 20440

Specifications

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  100 or 200  Structures or Roadway

Status

Struct.  455-14- AA  CONCRETE SHEET PILING  LF

A =
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")

Details and Structure: Items 100 to 1999
### Notes

**455-18-** PROTECTION OF EXISTING STRUCTURES

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
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<tbody>
<tr>
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<td>Lump Sum</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**

**Details**

Intended for projects where impacts of construction vibration on adjacent existing structures is a concern. 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.

List in the plans adjacent to structures not covered under 455-1.1 that require surveying and vibration monitoring, or structures that require special attention during construction.

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**

<table>
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<tr>
<th>Required</th>
<th>Recommended</th>
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<tr>
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<td>SHTabQuantLS</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

**References**

| PPM Chapter | Soils and Foundations Handbook 7.1.6, 9.2.4 |
| Other       | |

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

7, 13

**TRNS*PORT Category (DRAFT FIELD):** 100 or 200 Structures or Roadway

**Status**

**Struct. 455-18-** PROTECTION OF EXISTING STRUCTURES LS/LS

**Notes**

### 455-34 AA PRESTRESSED CONCRETE PILING

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<th>Unit</th>
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<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

**Details**

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

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
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<tr>
<td></td>
<td>Construction</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Detailed calculations are required in computation book to reflect actual scope of work.</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Final tabulation of quantities must be recorded on proper form in computation book by location.</td>
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<tr>
<td>References</td>
<td>PPM Chapter</td>
<td>SDG's 3.5</td>
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<td>Other</td>
<td>Index 20600 thru 20631.</td>
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<td></td>
</tr>
<tr>
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<td>7, 13</td>
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</table>

**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**

**455-35- AA PILING, STEEL**

Unit LF; M1 Accuracy Linear Foot; 10th of a 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

<table>
<thead>
<tr>
<th>Related Items</th>
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<th>Recommended</th>
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<tbody>
<tr>
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<td>Design</td>
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<td>Refer to Comp Book</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Detailed calculations are required in computation book to reflect actual scope of work.</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Final tabulation of quantities must be recorded on proper form in computation book by location.</td>
</tr>
<tr>
<td>References</td>
<td>PPM Chapter</td>
<td>SDG’s 3.5</td>
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<tr>
<td></td>
<td>Other</td>
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<td>Standards</td>
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Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

<table>
<thead>
<tr>
<th>Struct.</th>
<th>455-35- AA</th>
<th>PILING, STEEL</th>
<th>LF</th>
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</thead>
<tbody>
<tr>
<td>AA =</td>
<td>1 (Hp 8 X 36)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>2 (Hp 10 X 36)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>3 (Hp 10 X 42)</td>
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<td></td>
<td>4 (Hp 12 X 53)</td>
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<td></td>
<td>5 (Hp 14 X 73)</td>
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<td></td>
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<td></td>
<td>6 (Hp 14 X 89)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>7 (Hp 14 X 102)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 (Hp 14 X 117)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 (Special)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 (18” Dia Pipe)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21 (20” Dia. Pipe)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>22 (24” Dia. Pipe)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>23 (30” Dia. Pipe)</td>
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</tr>
</tbody>
</table>

Notes

455-36- A CONCRETE CYLINDER PILES- FURNISHED & DRIVEN

| Unit | LF; M1 | Accuracy | Linear Foot; 10th of a Meter | PlanQuantity? | no |

Details

Intended to cover cost and installation of the concrete cylinder 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

<table>
<thead>
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<tr>
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<td>Construction</td>
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<tr>
<td>Documentation Design</td>
<td>Locate in plans. Detailed calculations are required in computation book to reflect actual scope of work.</td>
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<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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References

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<thead>
<tr>
<th>PPM Chapter</th>
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<tr>
<td>SDG’s 3.5</td>
</tr>
<tr>
<td>Standards</td>
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<td>Index 20654, 20660.</td>
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</table>

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13
**Topic No. 600-000-002**

**Basis of Estimates**

**2008 Edition**

**May 28, 2008**

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.  455-36- A**

**CONCRETE CYLINDER PILES- FURNISHED & DRIVEN**

**Unit:** LF

**Accracy:** Linear Foot; 10th of a Meter

**Notes**

**A =**

1 (54" Dia.)

2 (60" Dia.)

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Notes**

**Details**

**Required**

**Recommended**

**Unit:** LF; M1

**Accuracy:** Linear Foot; 10th of a Meter

**PlanQuantity?** yes

**Notes**

**Effective January 2007. Formerly titled "Fender System, Plastic Composite Piles"**

**Details**

To be used with Fender System, Section 471. Refer to Design Standards and Specifications for additional information.

**Related Items**

**Required**

**Recommended**

**Unit:** LF;

**Accuracy:** Linear Foot; 10th of a Meter

**PlanQuantity?** yes

**Notes**

**Reference**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.  455-37- A**

**FIBERGLASS STRUCTURALLY REINFORCED COMPOSITE PILES**

**Unit:** LF

**Accuracy:** Linear Foot; 10th of a Meter

**PlanQuantity?** yes

**Notes**

**Details**

**Effective January 2007. Formerly titled "Fender System, Plastic Composite Piles"**

**Notes**

**Related Items**

**Required**

**Recommended**

**Unit:** LF;

**Accuracy:** Linear Foot; 10th of a Meter

**PlanQuantity?** yes

**Notes**

**Reference**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.  455-39- A**

**MINIPILE FOUNDATION SYSTEMS- FURNISH AND INSTALL**

**Unit:** EA

**Accuracy:** Each

**PlanQuantity?** no

**Notes**

**Details**

Intended for strengthening existing bridges or used on new structures that have restricted overhead room. Payment is per each; length is determined by the contractor's specialty engineer. Minimum tip elevation and minimum casing lengths shall be shown in the plans. Use requires State Structures Design Office approval.

---

**Details and Structure: Items 100 to 1999**

Page 147 of 451
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.

<table>
<thead>
<tr>
<th>Related Items</th>
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<td>Forms</td>
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<td>Construction</td>
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<td>References</td>
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<td></td>
<td>Other</td>
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<td>Standards</td>
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<td>Specifications</td>
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</table>

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Struct. 455-39- A MINIPILE FOUNDATION SYSTEMS- FURNISH AND INSTALL

A= Nominal Pile Diameter
blank (unspecified)
1 (10” Diameter)
2 (12” Diameter)
3 (14” Diameter)

Notes

455-76- WRAP PILE CLUSTERS

Unit EA Accuracy Each PlanQuantity? no

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.

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<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
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<tr>
<td></td>
<td>Construction</td>
<td>COMP 700-050-03</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
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</tbody>
</table>

Details and Structure: Items 100 to 1999
### Details

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Structure:** 455-76- WRAP PILE CLUSTERS EA

**Notes**

This item is under development by the State Materials Lab. Contact State Materials Office, Corrosion Lab for assistance in use of this item. 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. Electrical Work paid under item 400-60-A. See items 400-142 (structure) and 457-71 (pile jacket) for other types of Cathodic Protection.

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**

<table>
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<tbody>
<tr>
<td>400-60</td>
<td>COMP 700-050-03</td>
</tr>
</tbody>
</table>

**Forms**

- **Design:** SHTabQuant
- **Construction:** Refer to Comp Book

**Documentation**

- **Design:** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction:** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other
- Standards
- Specifications

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

**Specifications**
A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
BB =
01 (Pile, Zinc Anode Assembly)
02 (Pier, Zinc Anode Assembly)
04 (Pile, Titanium Anode Assembly)
05 (Pier, Titanium Anode Assembly)
06 (Other)

Notes

**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**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
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<td></td>
</tr>
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</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

PPM Chapter
Other

**Standards**

**Specifications**

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

**TRNS*PORT Category (DRAFT FIELD):**  0100 Structures

Status

Struct.  455- 87- STEEL ANCHOR BAR

EA

Notes

**455- 88- AA DRILLED SHAFT**

| Unit | LF; M1 | Accuracy | Linear Foot; 10th of a Meter | PlanQuantity? | no |

**Notes**

Details

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

<table>
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<tr>
<th>Required</th>
<th>Recommended</th>
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<tr>
<td>455-122 (2455-122)</td>
<td>455-142 when CSL testing is required</td>
</tr>
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### Forms

<table>
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<td>SHTabQuant</td>
<td>Refer to Comp Book</td>
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### Documentation

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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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### References

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Other</th>
</tr>
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<tbody>
<tr>
<td>SDG’s 3.6</td>
<td></td>
</tr>
</tbody>
</table>

### Standards

### Specifications

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

### Status

**Struct.** 455-88-AA DRILLED SHAFT LF

AA =
1 (24” Dia.)
2 (30” Dia.)
3 (36” Dia.)
4 (42” Dia.)
5 (48” Dia.)
6 (60” Dia.)
7 (72” Dia.)
8 (54” Dia.)
9 (66” Dia.)
19 (90” Dia.)
20 (108” Dia.)
21 (96” Dia.)

### Notes

Intended for the post grouting of drilled shaft tips after installation. The item includes all materials, hardware, and labor to perform the 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

<table>
<thead>
<tr>
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<th>Recommended</th>
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<tbody>
<tr>
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### Forms

<table>
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</thead>
<tbody>
<tr>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
</tbody>
</table>

---

**455-89-AA DRILLED SHAFT TIP GROUTING**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA</td>
<td>Each</td>
<td>no</td>
</tr>
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</table>

### Notes

Details

Intended for the post grouting of drilled shaft tips after installation. The item includes all materials, hardware, and labor to perform the 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

<table>
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<tbody>
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### Forms

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<tbody>
<tr>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
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</table>

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Documentation

Construction  Refer to Comp Book

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

References  PPM Chapter SDG’s 3.6

Other  Plan Detail and/or Tech Spec Required

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

Standards

Structures

TRNS*PORT Category (DRAFT FIELD):  0100 Structures

Struct.  455- 89- AA DRILLED SHAFT TIP GROUTING EA

AA =
1 (24" Dia.)
2 (30" Dia.)
3 (36" Dia.)
4 (42" Dia.)
5 (48" Dia.)
6 (60" Dia.)
7 (72" Dia.)
8 (54" Dia.)
9 (66" Dia.)
19 (90" Dia.)
20 (108" Dia.)

Notes

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.

Forms

Design  SHTabQuant

Construction  COMP 700-050-03

Refer to Comp Book

Documentation

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 455-101- A LOAD TEST- OSTERBERG EA

A =
1 (Less Than 5 Cells)
2 (5 Or More Cells)

Notes

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-recommended for test located on water.

Forms

Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter Other Soils and Foundations Handbook 10.3.1

Standards Specifications

Plan Detail and/or Tech Spec Required

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

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

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)

<table>
<thead>
<tr>
<th>455-107- AA</th>
<th>DRILLED SHAFT CASING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>LF; M1</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**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**

**Forms**

**Design** SHTabQuant  **Construction** COMP 700-050-03  Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Other** SDG’s 3.6

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

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.** 455-107- AA  **DRILLED SHAFT CASING**  **LF**

AA =
1 (24” Dia.)
2 (30" Dia.)
3 (36" Dia.)
4 (42" Dia.)
5 (48" Dia.)
6 (60" Dia.)
7 (72" Dia.)
8 (54" Dia.)
9 (66" Dia.)
18 (84" Dia.)
19 (90" Dia.)
20 (108" Dia.)
21 (96" Dia.)

Notes

455-111- CORE/PILOT HOLE- DRILLED SHAFT EXCAVATION

Unit LF; M1 Accuracy Linear Foot; 10th of a 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

Forms
Required 455- 88- AA, 455-122- AA Recommended
Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status
Struct. 455-111- CORE/PILOT HOLE- DRILLED SHAFT EXCAVATION LF

Notes
### 455-112- A  
**PILE- AUGER GROUTED**

**Unit**  LF; M1  
**Accuracy**  Linear Foot; 10th of a Meter  
**PlanQuantity?**  no

#### Notes
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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
</tbody>
</table>

#### Documentation

| Design | Locates in plans. Summarizes quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

#### References

- PPM Chapter
- Other  Soils and Foundations Manual 8.2.4, SDG’s 3.1
- Standards
- Specifications

#### 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

---

### 455-119-ABB  
**LOAD TEST- STATIC**

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

#### Notes
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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>455-129- A</td>
<td>455-131- and 455-132-</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td>required for test located on water.</td>
</tr>
</tbody>
</table>

#### Forms

| Design | SHTabQuant | COMP 700-050-03 |
| Construction | Refer to Comp Book | |

#### Documentation

| Design | Locates in plans. Summarizes quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

---

Details and Structure: Items 100 to 1999
### 455-119-ABB LOAD TEST- STATIC

**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)

### 455-120- A PILE POINT PROTECTION

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA</td>
<td>Each</td>
<td>no</td>
</tr>
</tbody>
</table>

**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**: COMP 700-050-03

**Forms**
- **Design**: SHTabQuant
- **Construction**: Refer to Comp Book

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References

**PPM Chapter**
- 7, 13

**Other**
- Soils and Foundations Handbook 10.3.1

**Standards**

**Specifications**

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

### Status

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Struct.** 455-120- A PILE POINT PROTECTION EA

**A =**
- 1 (HP 14" X 89)
- 2 (20" Sq.)
### 455-122- AA  UNCLASSIFIED SHAFT EXCAVATION

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**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**

<table>
<thead>
<tr>
<th>Required</th>
<th>455-88- AA</th>
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</thead>
<tbody>
<tr>
<td>Recommended</td>
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<th>Design</th>
<th>SHTabQuant</th>
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<tbody>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

PPM Chapter

Other

SDG’s 3.6

Standards

Specifications

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**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**

---

### 455-129- A  INSTRUMENTATION AND DATA COLLECTION

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity?</th>
<th>yes</th>
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</table>

**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**

<table>
<thead>
<tr>
<th>Required</th>
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<td>455-101, 455-103, or 455-119</td>
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**Forms**

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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
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**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
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<td>Soils and Foundations Handbook 10.3</td>
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</table>

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

7, 13

**TRNSPORT Category (DRAFT FIELD):** 0100 Structures

**Struct.** 455-129- A INSTRUMENTATION AND DATA COLLECTION LS/LS

A =
1 (Pile Foundation)
2 (Drilled Shaft Foundation)

**Notes**

**455-131- PLATFORM, WORKING SERVICE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>Plan Quantity?</th>
</tr>
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<tbody>
<tr>
<td>EA</td>
<td>Each</td>
<td>no</td>
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</tbody>
</table>

**Notes**

Intended for access platform at pile/shaft test site. Use with all static, statnamic and Osterberg Cell load test projects when tests are located in waterway or on land tests where access is difficult.

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**

<table>
<thead>
<tr>
<th>Required</th>
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</thead>
<tbody>
<tr>
<td>455-101, 455-103, or 455-119</td>
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**Forms**

<table>
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<th>Construction</th>
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<td>SHTabQuant</td>
<td>Refer to Comp Book</td>
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<th>Construction</th>
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<tbody>
<tr>
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<td>Record final quantity on the tabulation sheet (plans) or computation form</td>
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</table>
(comp book).

References
- PPM Chapter
- Other
- Standards
- Specifications

Plan Detail and/or Tech Spec Required
- Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status
- Struct. 455-132- PLATFORM, REMOTE OBSERVATION EA

Notes

455-132- PLATFORM, REMOTE OBSERVATION

| Unit  | EA | Accuracy | Each | PlanQuantity? | no |

Details
- Intended for survey platform at test pile/shaft. Use with all static, statnamic and Osterberg Cell load test projects when tests are located in waterway or on land tests where access is difficult.

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

Forms
- Design SHTabQuant COMP 700-050-03
- Construction Refer to Comp Book

Documentation
- Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
- PPM Chapter
- Other
- Standards
- Specifications

Plan Detail and/or Tech Spec Required
- Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status
- Inactive Structure

Struct. 455-132- PLATFORM, REMOTE OBSERVATION EA

Notes
# SHEET PILING, STEEL

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>SF; M2</td>
<td>Square Foot; 10th of a Square Meter</td>
<td>yes</td>
<td></td>
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</table>

## Details

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.

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.

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.).

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

<table>
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<th>Required</th>
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</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

### Forms

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<tbody>
<tr>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
<td></td>
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<tr>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
<td></td>
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### Documentation

<table>
<thead>
<tr>
<th>PPM Chapter</th>
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</thead>
<tbody>
<tr>
<td>SDG’s 3.5</td>
</tr>
</tbody>
</table>

| Other |
| SDG’s 3.5 |

### Standards

### Specifications

<table>
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<th>Prep &amp; Doc Manual Chapter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6, 7, 13</td>
</tr>
</tbody>
</table>

## TRNS*PORT Category (DRAFT FIELD):

100 or 200 Structures or Roadway

### Notes

- A =
- 2 (Temporary- Critical)
- 3 (Furnish & Install Permanent)

---

## LOAD TEST - DYNAMIC

Details and Structure: Items 100 to 1999
### 455-143-XXA, 455-144-XXA, 455-145-XXA

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

**Details:** Intended for driven piling projects for PDA testing. Quantity given should be equal to the number of test piles called out on the Foundations Layout Sheet.

**Related Items:**
- **Required:** 455-143-XXA, 455-144-XXA, 455-145-XXA
- **Recommended:**

**Forms:**
- **Design:** SHTabQuant  
- **Construction:** COMP 700-050-03

**Documentation:**
- **Design:** Refer to Comp Book  
- **Construction:** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**References:**
- **PPM Chapter:**
- **Other:** Soils and Foundation Handbook 10.1, 10.2

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

---

### 455-88, 455-122-XAA

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

**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 projects containing only miscellaneous structures with drilled shafts smaller than 60 inches in diameter.

If the Engineer suspects defects in a 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:**

**Forms:**
- **Design:** SHTabQuant  
- **Construction:** COMP 700-050-03

**Documentation:**
- **Design:** Refer to Comp Book  
- **Construction:** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**References:**
- **PPM Chapter:**
- **Other:** Soils and Foundation Handbook 10.4.2, 10.4.3

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures
Specifications

Plan Detail and/or Tech Spec Required

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

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

Struct.  455-142-  CROSSHOLE SONIC LOGGING  EA

Notes

455-143- AA  TEST PILES- PRESTRESSED CONCRETE

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

Notes

Details

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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
<tr>
<td>455-137, 455-34</td>
<td></td>
</tr>
</tbody>
</table>

Forms

Design  SHTabQuant  COMP 700-050-03

Construction  Refer to Comp Book

Documentation

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter
Other  Soils and Foundation Handbook 10.1, 10.2

Standards

Specifications

*Selected Items may require Tech Spec and/or Plan Detail

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

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)*

Notes * Special may require Tech Spec and/or Plan Detail

**455-144- AA** TEST PILES- STEEL

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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<tr>
<td>455-137, 455-34</td>
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**Forms**

<table>
<thead>
<tr>
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<th>SHTabQuant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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**Documentation**

<table>
<thead>
<tr>
<th>Design</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

**References**

PPM Chapter

Other

Soils and Foundation Handbook 10.1, 10.2

**Standards and Specifications**

*Selected Items may require Tech Spec and/or Plan Detail

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

7, 13

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

0100 Structures

**Status**

**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

---

### 455-145- A TEST PILE- CONCRETE CYLINDER PILES

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>Plan Quantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

Intended to cover cost and installation of the prestressed concrete 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:

\[(\text{Sum of test pile lengths}) + (0.3) \times \text{Sum of required preformed pile hole depths for test piles}\]

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.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>455-137, 455-34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended</td>
<td></td>
</tr>
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</table>

**Forms**

<table>
<thead>
<tr>
<th>Design</th>
<th>SHTabQuant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

**Documentation**

<table>
<thead>
<tr>
<th>Design</th>
<th>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>Soils and Foundation Handbook 10.1, 10.2</td>
</tr>
</tbody>
</table>

**Standards**

**Specifications**

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

7, 13

---

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

0100 Structures

**Status**

**Struct.**

455-145- A TEST PILE- CONCRETE CYLINDER PILES LF

\[ A = \\
1 (54" Dia.) \\
2 (60" Dia.) \]

**Notes**

Details and Structure: Items 100 to 1999
### 455-146- EMBEDDED DATA COLLECTOR

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>Plan</th>
<th>Quantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**
Effective January 2007. Implemented by mandatory specification change and Structures Temporary Design Bulletin

**Details**
to be used with all prestressed concrete test piles. Estimate a quantity of 1 per test 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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Construction</td>
</tr>
<tr>
<td>Design</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

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

**References**
PPM Chapter Interim 20602

**Status**
Struct. 455-146- EMBEDDED DATA COLLECTOR EA

---

### 457- 1- AB STANDARD INTEGRAL PILE JACKET

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>Plan</th>
<th>Quantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**
PENDING SPECIFICATION- New Item effective 1-1-2009; replaces 457-70 items

**Details**
Intended for rehabilitation projects to repair concrete pile corrosion damage. Contact State Materials Office, Corrosion Lab for assistance in use of this item. Show locations in plans w/ quantity block.

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.

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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Construction</td>
</tr>
<tr>
<td>Design</td>
<td>COMP 700-050-03</td>
</tr>
</tbody>
</table>

**Documentation**
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**
Record final quantity on the tabulation sheet (plans) or computation form.
**Struct. 457-1-AB**  
**STANDARD INTEGRAL PILE JACKET**  
LF

---

**Notes**

**Details**

**Plan Detail and/or Tech Spec Required**

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

**TRNS*PORT Category (DRAFT FIELD):** 0100  Structures

---

**457-2-AB**  
**CATHODIC PROTECTION INTEGRAL PILE JACKET**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

**Details**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100  Structures

---

**Related Items**

**Required**  400-60-

**Recommended**  COMP 700-050-03

**Forms**

**Design**  SHTabQuant  
**Construction**  Refer to Comp Book

**Documentation**

**Design**  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
**Construction**  Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**
### Plan Detail and/or Tech Spec Required

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**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")
  - 3 (30.1 and larger)

**Notes**

Plan Detail and/or Tech Spec Required

**Unit** LF; M1  **Accuracy** Linear Foot; 10th of a Meter  **Plan Quantity?** no

**Details**

457-70-ABB INTEGRAL PILE JACKET

- **Notes**
  - PENDING SPECIFICATION- Valid through 12-31-2008; replaced by 457-1 items

- Intended for rehabilitation projects to repair concrete pile corrosion damage. Contact State Materials Office, Corrosion Lab for assistance in use of this item. Show locations in plans w/ quantity block.

- 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.

- 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**

**Forms**

- **Required** SHTabQuant  **Recommended** COMP 700-050-03

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

PPM Chapter  Other  Standards  Specifications

---

**Plan Detail and/or Tech Spec Required**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.  457- 70-ABB** INTEGRAL PILE JACKET LF
A =
2 (Portland Cement Grout Filler)
3 (Class III Concrete Seal Filler)
4 (Others)

BB =
01 (12")
02 (14")
03 (15")
04 (16")
05 (18")
06 (20")
07 (21")
08 (22")
09 (24")
10 (27")
11 (30")

Notes
A=1 blocked 4-8-08

457- 71- AB  CATHODIC PROTECTION- INTEGRAL PILE JACKET

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

Notes
PENDING SPECIFICATION- Valid through 12-31-2008; replaced by 457-2 items

Details
Coordinate with the State Materials Office, Corrosion Lab for assistance in use of this item.
Intended for rehabilitation projects to repair piles with corrosion damage using cathodic protection. Show locations in plans w/ quantity block.
Electrical Work paid under item 400-60-A.
See items 400-142 (structure) and 455-81 (pier or pile) for related 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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>400-60-</td>
<td>COMP 700-050-03</td>
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Forms

<table>
<thead>
<tr>
<th>Design</th>
<th>SHTabQuant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

Documentation

<table>
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<tr>
<th>Design</th>
<th>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
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<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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References

<table>
<thead>
<tr>
<th>PPM Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Standards</td>
</tr>
<tr>
<td>Specifications</td>
</tr>
</tbody>
</table>

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 457-71-AB  CATHODIC PROTECTION- INTEGRAL PILE JACKET  LF
A =
1 (Galvanic Cathodic Protection Non-Structural)
2 (Galvanic Cathodic Protection Structural)
3 (Impressed Current Cathodic Protection Non-Structural)
4 (Impressed Current Cathodic Protection Structural)
5 (Other)

B = Pile Size
1 (up to 16")
2 (16.1 to 30")
3 (30.1 and larger)

Notes

458-  1- AB  BRIDGE DECK EXPANSION JOINT

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td></td>
</tr>
</tbody>
</table>

Notes
Effective January 2007. Replaces several joint seal items

Details
Refer to Design Standards and Specifications for selection and use of these joints. Note: Tech Specs are required for selected items, as shown in the pay item structure. For Bridge Approach Expansion Joints, refer to 370 items. For Concrete Joint repairs in Structures, refer to 400 items.

Related Items
<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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Documentation
<table>
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<tr>
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<th>Construction</th>
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| Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
<table>
<thead>
<tr>
<th>PPM Chapter</th>
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</thead>
<tbody>
<tr>
<td>Other</td>
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<table>
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<tr>
<th>Standards</th>
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<tbody>
<tr>
<td>Specifications</td>
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<tr>
<td>Index No. 21110, 21100</td>
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</tbody>
</table>

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

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)
2 (Strip Seal)
3 (Modular) Note: Tech Spec Required
4 (Finger Joint) Note: Tech Spec Required
5 (Compression Elastomeric) Note: For Rehab only
6 (Other)

Notes
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.

**Related Items**

**Forms**

- Required: SHTabQuant
- Recommended: COMP 700-050-01

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other: Soils and Foundations Handbook 8.3.3

**Status**

Struct. 459-71- PILES, POLYETHYLENE SHEETING SY

**Notes**

**References**

- PPM Chapter
- Other
- Standards
- Specifications

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

---

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**

**Forms**

- Required: SHTabQuant
- Recommended: COMP 700-050-06

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

- PPM Chapter
- Other
- Standards
- Specifications
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

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 on structural steel.

Related Items

Forms

Required
Design SHTabQuantLS
Construction Refer to Comp Book

Recommended
Design COMP 700-050-05
Construction

Documentation

Design Use a quantity of 1, but calculations and documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans.
Construction Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.
## 460- 2- AA

**STRUCTURAL STEEL- NEW/WIDENING**

<table>
<thead>
<tr>
<th>AA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carbon</td>
</tr>
<tr>
<td>2</td>
<td>Low Alloy</td>
</tr>
<tr>
<td>3</td>
<td>Shoe Assemblies</td>
</tr>
<tr>
<td>5</td>
<td>Bascule Leaves</td>
</tr>
<tr>
<td>6</td>
<td>Bascule Piers</td>
</tr>
<tr>
<td>15</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>18</td>
<td>Carbon, Truss</td>
</tr>
<tr>
<td>19</td>
<td>Low Alloy, Truss</td>
</tr>
<tr>
<td>20</td>
<td>Weathering</td>
</tr>
</tbody>
</table>

### Notes

Intended for both steel and aluminum ladders and platforms when necessary for personnel/maintenance access. Clearly define location with quantity block in plans.

### Related Items

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
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<td>COMP 700-050-06</td>
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### Documentation

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### Status

**Struct. 460- 2- AA**

**LADDERS & PLATFORMS**

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<tr>
<th>Unit</th>
<th>LB; KG</th>
<th>Accuracy</th>
<th>Pound; Kilogram</th>
<th>PlanQuantity?</th>
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**Notes**
### 460-13- A  
**STRUCTURAL STEEL REHAB- SANDWICH PLATE SYSTEM**

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M2</th>
<th>Accuracy</th>
<th>Square Yard; Square Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
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</thead>
</table>

**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**  
<table>
<thead>
<tr>
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<th>Recommended</th>
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</table>

**Forms**  
Design: SHTabQuant  
Construction: Refer to Comp Book

**Documentation**  
Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**
PPM Chapter
Other

**Standards**
Specifications

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

**Struct.**  
460-13- A  
**STRUCTURAL STEEL REHAB- SANDWICH PLATE SYSTEM**

A=
1 (Deck and Stringer)
2 (Deck)

**Related Items**

**Notes**

### 460-70- A  
**ALUMINUM BULLET RAILINGS**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**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 Ped Bicycle railing is

**Recommended**
Formulas

Design: SHTabQuant

Construction: Refer to Comp Book

Documentation

Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References: PPM Chapter, Other

Specifications

Standards: Index No. 423, 820, 821, 822

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

Status

Located in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

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

Notes

ALUMINUM BULLET RAILINGS

| A = |
|---|---|
| 1 (Single Rail) | |
| 2 (Double Rail) | |
| 3 (Triple Rail) | |

METAL TRAFFIC RAILING

Unit: LF; M1

Accuracy: Linear Foot; 10th of a Meter

Plan Quantity?: yes

Notes

Consists of furnishing and installing metal traffic barriers, for new construction or Barrier Retrofit. Show location in plans and include in quantity block.

Details

Required

Forms

Design: SHTabQuant

Construction: Refer to Comp Book

Documentation

Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References: PPM Chapter, Other

Specifications

Standards: Index 470 through 476

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

Status

Located in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

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

Notes

Consists of furnishing and installing metal traffic barriers, for new construction or Barrier Retrofit. Show location in plans and include in quantity block.

Details

Required

Forms

Design: SHTabQuant

Construction: Refer to Comp Book

Documentation

Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References: PPM Chapter, Other

Specifications

Standards: Index 470 through 476

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

Status

Located in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

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

Notes

Consists of furnishing and installing metal traffic barriers, for new construction or Barrier Retrofit. Show location in plans and include in quantity block.
Struct.  460- 71-  A  METAL TRAFFIC RAILING  LF

A =
1 (Thrie Beam Retrofit)
2 (Steel Post And Rail)*
3 (Steel Post and Rail-Retaining Wall System Maintenance)

Notes  *Non-standard; custom design may be required.

460- 81-  A  RIVET / HIGH STRENGTH BOLT REPLACEMENT

Unit  EA  Accuracy  Each  PlanQuantity?  no

Notes  For Rehabilitation projects only.

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
Forms  Design  SHTabQuant  COMP 700-050-03
Construction  Refer to Comp Book

Documentation
Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction  Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References  PPM Chapter
Other
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  100 or 200  Structures or Roadway

Status
Struct.  460- 81-  A  RIVET / HIGH STRENGTH BOLT REPLACEMENT  EA

A =
Blank (Standard)
1 (Special)

Notes

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.
Struct. 460-95-

**STRUCTURAL STEEL REPAIR**

**LB**

**Notes**

**460-98- A PIPE HANGER**

| Unit | EA | Accuracy | Each | PlanQuantity? | no |

**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 with quantity block in plans.

Note: Pipe hangers for bridge drainage system paid for under 506-2.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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<tr>
<td>Construction</td>
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| Documentation | Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

**References**

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<th>PPM Chapter</th>
<th>Other</th>
<th>Standards</th>
<th>Specifications</th>
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<tr>
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<td>7, 13</td>
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**TRNS** PORT Category (DRAFT FIELD): 0100 Structures

**Status**

**Struct. 460-98- A PIPE HANGER EA**

A =
### 460-112- ANCHOR BOLT REPLACEMENT

<table>
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<th>Unit</th>
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<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
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</thead>
</table>

**Notes**
For rehabilitation jobs only. Show location with quantity block in plans.

**Related Items**
- **Required**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

**Documentation**
- **Design:** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - **Construction:** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

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

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### 461-113- MULTI ROTATIONAL BEARING ASSEMBLY

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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**
Intended furnish and installing pot, disc or cylindrical bearing assemblies. Include location w/ quantity block in plans.

**Related Items**
- **Required**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

**Documentation**
- **Design:** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - **Construction:** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

**Prep & Doc Manual Chapter(s)** 7, 13
Struct.  461-113- AB   MULTI ROTATIONAL BEARING ASSEMBLY   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

461-114- AB   MULTI ROTATIONAL BEARING ASSEMBLY- EXPANSION

<table>
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<tr>
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<th>EA</th>
<th>Accuracy</th>
<th>Each PlanQuantity?</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

Notes

Details

Intended furnish and installing pot, disc or cylindrical bearing assemblies. Include location w/ quantity block in plans.

Related Items

Required  Recommended

Forms

Design  SHTabQuant  COMP 700-050-03

Construction  Refer to Comp Book

Documentation

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter
Other  SDG’s 6.5

Standards  Specifications

Prep & Doc Manual Chapter(s)  7, 13
5 (1001 - 1250 Kips)
6 (1251 - 1500 Kips)
7 (1501 - 1750 Kips)
8 (1751 - 2000 Kips)
9 (> = 2001 Kips)

Notes

462- 2- AA  POST TENSIONING TENDONS

<table>
<thead>
<tr>
<th>Unit</th>
<th>LB; KG</th>
<th>Accuracy</th>
<th>Pound; Kilogram</th>
<th>PlanQuantity?</th>
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</table>

Notes

Details

Required  Recommended

Related Items

Forms  Design  SHTabQuant  COMP 700-050-06
Construction  Refer to Comp Book

Documentation  Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

Construction

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

References

PPM Chapter
Other
Specifications

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

Struct.  462- 2- AA  POST TENSIONING TENDONS  LB

AA =
11 (Superstructure Strand)
12 (Superstructure Bar)
13 (Substructure Strand)
14 (Substructure Bar)

Notes

462- 3-  ADDITIONAL POST-TENSIONING IN SEGMENTAL BOX SPAN

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
</tr>
</thead>
</table>

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

Forms  Design  SHTabQuant  COMP 700-050-03
### 462- 20- A

**POST TENSIONING REPAIR**

| Unit | EA; LF; CF | Accuracy | Each; Linear Foot; Cubic | PlanQuantity? | no |

#### Notes

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

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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

#### Documentation

| Design | Refer to Comp Book |
| Construction | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Structure:** 462- 3- ADDITIONAL POST-TENSIONING IN SEGMENTAL BOX SPAN

**Notes**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).
465- 1- MOVABLE BRIDGE- MECHANICAL EQUIPMENT

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

Notes

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

<table>
<thead>
<tr>
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## References

<table>
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<th>Standards</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDG’s Chapter 8</td>
<td></td>
</tr>
</tbody>
</table>

## Plan Detail and/or Tech Spec Required

**Notes**

**Related Items**

**Forms**

- **Design**: SHTabQuantLS
- **Construction**: Refer to Comp Book

**Documentation**

- **Design**: LUMP SUM ITEMS: Use a quantity of 1. No form required. Locate or define the scope of work involved on the plans.
- **Construction**: Location must be summarized on the plans. Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Other</th>
<th>Standards</th>
<th>Specifications</th>
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### MOVABLE BRIDGE MACHINERY AND CASTINGS- REHAB

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS; EA; AS</th>
<th>Accuracy</th>
<th>Lump Sum; Each; Assembly</th>
<th>PlanQuantity?</th>
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</tr>
</thead>
</table>

**Notes**

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.
2 (Furnish)
3 (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 (Trunion 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

465- 3- AB MOVABLE BRIDGE COUNTERWEIGHT

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA; TN; MT</th>
<th>Accuracy</th>
<th>Each; Ton; Metric Ton</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

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

<table>
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<th>Recommended</th>
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<td>Documentation</td>
<td>Refer to Comp Book</td>
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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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References

<table>
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<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDG’s Chapter 8</td>
<td></td>
</tr>
</tbody>
</table>

Plan Detail and/or Tech Spec Required

Details and Structure: Items 100 to 1999
**Struct. 465-4- MOVABLE BRIDGE SPAN JACKING LS/EA**

**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

<table>
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Recommended

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**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)
### MOVABLE BRIDGE- PREVENTATIVE MAINTENANCE

<table>
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<tr>
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</table>

**Notes**

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.

<table>
<thead>
<tr>
<th>Related Items</th>
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<tbody>
<tr>
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<th>Specifications</th>
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**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.**

#### MOVABLE BRIDGE OPERATOR

<table>
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<tr>
<th>Unit</th>
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<th>PlanQuantity?</th>
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<tbody>
<tr>
<td>DA</td>
<td>Day</td>
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</table>

**Notes**

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.

<table>
<thead>
<tr>
<th>Related Items</th>
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<tbody>
<tr>
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<th>References</th>
<th>PPM Chapter</th>
<th>Other</th>
<th>Standards</th>
<th>Specifications</th>
</tr>
</thead>
</table>

**Plan Detail and/or Tech Spec Required**

---

Details and Structure: Items 100 to 1999
**MOBILE BRIDGE FUNCTIONAL CHECKOUT**

**Unit:** LS/LS  
**Accuracy:** Lump Sum  
**Plan Quantity?:** yes

**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**

<table>
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<th>Recommended</th>
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<td>Construction</td>
<td>Refer to Comp Book</td>
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<td>Documentation</td>
<td>Design</td>
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<td>Construction</td>
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**References**

<table>
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<th>PPM Chapter</th>
<th>Other</th>
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<tbody>
<tr>
<td>SDG’s 8.7.19</td>
<td></td>
</tr>
</tbody>
</table>

**Standards**

Plan Detail and/or Tech Spec Required

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

**Notes**

A = See detail for Phasing
1 (Phase A) for 1st 2 leaves
2 (Phase B) for 2nd leaves
3 (Phase C) for Complete
470- 1-  

TREATED TIMBER, STRUCTURAL  

| Unit     | MB; M3 | Accuracy      | 10th of a Thou Board Measure; 10th of a 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  
Forms  
Design | SHTabQuant  
Construction | COMP 700-050-04  
Refer to Comp Book  
Design  
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.  
Construction  
Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.  
References  
PPM Chapter |  
Other | Structures Detailing Manual Chapter 12.  
Standards  
Specifications  
Prep & Doc Manual Chapter(s) | 6, 7, 13  
TRNS*PORT Category (DRAFT FIELD):  
Struct. | 470- 1-  
TREATED TIMBER, STRUCTURAL | MB  

471- 1- A  

FENDER SYSTEM, PLASTIC MARINE LUMBER  

| Unit     | MB; M3 | Accuracy      | 10th of a Thou Board Measure; 10th of a Cubic Meter | PlanQuantity? |  

Notes  
Details  
Effective January 2007 letting.  
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.
### Struct. 471-1- A

**FENDER SYSTEM, PLASTIC MARINE LUMBER**

<table>
<thead>
<tr>
<th>A</th>
<th>Reinforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Reinforced)</td>
</tr>
<tr>
<td>2</td>
<td>(non-reinforced)</td>
</tr>
</tbody>
</table>

**Notes**

*Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.*

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

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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<tr>
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<td><strong>Design</strong></td>
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<tr>
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<td>COMP 700-050-04</td>
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</tbody>
</table>

**References**

**PPM Chapter**

**Other**

**Standards**

Index No. 21900 thru 21930

**Specifications**

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

---

### 504-1- AA

**STEEL ROADWAY FLOOR**

<table>
<thead>
<tr>
<th>Unit</th>
<th>SF; M²</th>
<th>Accuracy</th>
<th>Square Foot; 10th of a Square Meter</th>
<th>Plan Quantity?</th>
</tr>
</thead>
</table>

**Notes**

*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**

<table>
<thead>
<tr>
<th>Required</th>
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<tbody>
<tr>
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<tr>
<td>SHTabQuant</td>
<td>COMP 700-050-01</td>
</tr>
</tbody>
</table>

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

**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)
3 (4 1/2" Open)
4 (5 1/2" Open)
5 (5 1/2" Armored)
6 (3 1/2" Armored)
7 (7 1/2" Open)
8 (6" Open)
9 (3 1/2" Open)
10 (5" Armored)

Notes

504-2- SIDEWALK FLOOR, STEEL - REHAB

Unit SF; M2
Accuracy Square Foot; 10th of a Square Meter
PlanQuantity? yes

Details
Intended for rehabilitation projects when steel sidewalks gratings is required without roadway grating. 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
Design SHTabQuant
Construction Refer to Comp Book

Recommended
Design COMP 700-050-01
Construction

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter
Other
Standards
Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0100 Structures
Status Inactive Structure

Struct. 504-2- SIDEWALK FLOOR, STEEL - REHAB  SF

Notes
Notes
Coordinate the use of this item with the State Structures Design Office. Tech Spec should indicate that this is a complete system, including all lines, fittings, incidental, and testing.

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.

<table>
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<tr>
<th>Related Items</th>
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<tbody>
<tr>
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<td></td>
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References
PPM Chapter
Other
Standards
Specifications
Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Notes

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<tr>
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<thead>
<tr>
<th>506- 2- BRIDGE DRAIN PIPE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit</strong></td>
</tr>
</tbody>
</table>

Notes
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.

<table>
<thead>
<tr>
<th>Related Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required 506- 3-</td>
</tr>
<tr>
<td>Forms</td>
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<tr>
<td>Construction</td>
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<tr>
<td>Documentation</td>
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</table>
Construction

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

References

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 506- 2- BRIDGE DRAIN PIPE LF

Notes

Details

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

Related Items

Required 506- 2- Recommended

Forms

Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 506- 3- BRIDGE DRAINS EA

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- 3- Recommended

Forms

Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 506- 3- BRIDGE DRAINS EA

Notes

Details and Structure: Items 100 to 1999
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.

<table>
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<td>Specifications</td>
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Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

### Status

**Struct.** 507-70- ALUMINUM SIDEWALK FLOOR SF

### Notes

**508-1-A** MOVABLE BRIDGE ELECTRICAL EQUIPMENT

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity? yes</th>
</tr>
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</table>

Notes:

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

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### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

#### Plan Detail and/or Tech Spec Required

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

### Status

**Struct.** 508-1- A MOBILE BRIDGE ELECTRICAL EQUIPMENT LS/LS

**A= Operation**

1 (New- Furnish & Install)

4 (Relocate)

5 (Existing- Adjust/Modify/Rehab)

6 (Remove & Dispose) Note: Contractor takes ownership

7 (Remove & Stockpile/Salvage) Note: DOT/maintaining agency retains ownership

### Notes

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.

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

<table>
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<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
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<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
</tbody>
</table>
Standards
Specifications

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

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

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

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.

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.

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

Forms

Required  Recommended
Design  SHTabQuant  COMP 700-050-03
Construction  Refer to Comp Book

Documentation

Required  Recommended
Design  Construction  Record final quantity on the tabulation sheet (plans) or computation form (comp book).
### MOBILE BRIDGE SIGNAL

**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

### MOBIBLE BRIDGE ELECTRICAL EQUIPMENT, REHAB

<table>
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<th>Unit</th>
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<tbody>
<tr>
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**Notes**
- USE 508-1-A, with A= REHAB

### MOBILE BRIDGE EMERGENCY GENERATOR

<table>
<thead>
<tr>
<th>Unit</th>
<th>AS</th>
<th>Accuracy</th>
<th>Assembly</th>
<th>Plan Quantity?</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**
- 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

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<tr>
<td>References</td>
<td>PPM Chapter</td>
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<td></td>
<td>Other</td>
</tr>
<tr>
<td>Standards</td>
<td>Specifications</td>
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</table>

**Plan Detail and/or Tech Spec Required**

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

**TRNS*PORT Category (DRAFT FIELD):**  0100 Structures

### Notes

**Struct.**  508-72- A  **MOVABLE BRIDGE EMERGENCY GENERATOR**  AS

A = 1 (Furnish & Install)

2 (Furnish)

3 (Install)

4 (Remove)

---

### 508-73- A  **SUBMARINE CABLE ASSEMBLY**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LF; LS/M1</th>
<th>Accuracy</th>
<th>Lump Sum (Linear Foot); Lump Sum (Meter)</th>
</tr>
</thead>
</table>

**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.
### Struct. 508-73- A SUBMARINE CABLE ASSEMBLY LS/LF

| A | 1 (Furnish & Install)  
2 (Furnish)  
3 (Install)  
4 (Remove) |

### Notes

Plan Detail and/or Tech Spec Required  

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

### Related Items

<table>
<thead>
<tr>
<th>Forms</th>
<th>Design</th>
<th>SHTabQuantLS</th>
<th>COMP 700-050-05</th>
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<tbody>
<tr>
<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
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</tbody>
</table>

| Documentation | Design | Use a quantity of 1, but calculations and documentation must be to the second unit of measure. Locate or define the scope of work involved on the plans. |
|               | Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

<table>
<thead>
<tr>
<th>References</th>
<th>PPM Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
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<td>Specifications</td>
<td>Plan Detail and/or Tech Spec Required</td>
</tr>
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</table>

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

---

**508-76- A MOVABLE BRIDGE REHAB- SPAN MOTORS AND CONTROLLERS**

| Unit         | LS/LS | Accuracy | Lump Sum | Plan Quantity? | yes |

### Notes

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.

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**Related Items**

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<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

| Documentation | Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
|               | Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

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<tr>
<th>References</th>
<th>PPM Chapter</th>
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<tbody>
<tr>
<td>Other</td>
<td>SDG’s Chapter 8</td>
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**Details and Structure: Items 100 to 1999**
Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

Struct.  508-76- A  MOVABLE BRIDGE REHAB- SPAN MOTORS AND CONTROLLERS

A =
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Recondition)

Notes

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

Struct.  508-77- A  MOVABLE BRIDGE REHAB- PROGRAMMABLE LOGIC CONTROLLER

<table>
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<th>Each</th>
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<td></td>
<td></td>
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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

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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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References

PPM Chapter
Other
SDG’s Chapter 8
Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0100  Structures

Status

Struct.  508-77- A  MOVABLE BRIDGE REHAB- PROGRAMMABLE LOGIC EA
CONTROLLER

A = 1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Programming)

Notes

<table>
<thead>
<tr>
<th>508-78- A</th>
<th>MOVABLE BRIDGE REHAB- LIMIT SWITCHES AND TRANSDUCERS</th>
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<tbody>
<tr>
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<td>Lump Sum</td>
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<td>yes</td>
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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.

Required Recommended

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<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
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References

PPM Chapter

Other

SDG’s Chapter 8

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Status

Struct. 508-78- A MOVABLE BRIDGE REHAB- LIMIT SWITCHES AND TRANSUDERS

A =
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Programming)

Notes

Details and Structure: Items 100 to 1999
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
Forms
Required Design SHTabQuant  Recommended COMP 700-050-03
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other SDG’s Chapter 8
Standards
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures
Status
Struct.  508- 79- A MOVABLE BRIDGE REHAB- CONTROL CONSOLE EA

A =
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)

Notes

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.
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### Related Items

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### Documentation

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### References

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

---

### TRNS*PORT Category (DRAFT FIELD): 0100 Structures

### Struct.  508- 80-  A MOBILE BRIDGE REHAB-BRAKE SYSTEM EA

A =  
1 (Furnish & Install)  
2 (Furnish)  
3 (Install)  
4 (Remove)  
5 (Recondition)

### Notes

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

<table>
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### Documentation

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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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</tbody>
</table>
### MOVABLE BRIDGE REHAB- CONTROL PANEL / MOTOR CONTROLLER

**Unit**: EA  
**A = Operation**  
1 (Furnish & Install)  
2 (Furnish)  
3 (Install)  
4 (Recondition)  
5 (Replace)*

#### Notes

Plan Detail and/or Tech Spec Required  
Prep & Doc Manual Chapter(s) 6, 7, 13

---

### MOVABLE BRIDGE REHAB- INTEGRATED DRIVE SYSTEM

**Unit**: AS  
**Accuracy**: Assembly  
**PlanQuantity?**: no

#### Notes

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

**Forms**  
**Required**: SHTabQuant  
**Recommended**: COMP 700-050-03

**Documentation**  
**Design**: Refer to Comp Book  
**Construction**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

#### References

**PPM Chapter**  
**Other**: SDG’s Chapter 8  
**Standards**  
**Specifications**  
**Plan Detail and/or Tech Spec Required**  
Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD)**: 0100  
**Structures**

---

Details and Structure: Items 100 to 1999
MovabLe BRidge reHab- inTeGrAted drivE systEEm

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

510- 1- A NAVIGATION LIGHTS- FIXED BRIDGE

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<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
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<tbody>
<tr>
<td>LS/LS; EA</td>
<td>Lump Sum; Each</td>
<td>yes/no</td>
</tr>
</tbody>
</table>

Notes

Includes work related to the navigation lights and accessories for fixed bridges, including the fender and channel lights. For bascule bridges, navigation lights included under 508-1.

Final:
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
Design
SHTabQuantLS

Recommended
COMP 700-050-05

Forms

Refer to Comp Book

Documentation

Design
LUMP SUM ITEMS: Use a quantity of 1. No form required. Locate or define the scope of work involved on the plans.

EACH ITEMS: Location must be summarized on the plans.

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

References

PPM Chapter
Index 21220

Other

Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Details

Struct.  508- 83- ABB MOVABLE BRIDGE REHAB- INTEGRATED DRIVE SYSTEM

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

510- 1- A NAVIGATION LIGHTS- FIXED BRIDGE

<table>
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<th>Unit</th>
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<tr>
<td>LS/LS; EA</td>
<td>Lump Sum; Each</td>
<td>yes/no</td>
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Notes

Includes work related to the navigation lights and accessories for fixed bridges, including the fender and channel lights. For bascule bridges, navigation lights included under 508-1.

Final:
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
Design
SHTabQuantLS

Recommended
COMP 700-050-05

Forms

Refer to Comp Book

Documentation

Design
LUMP SUM ITEMS: Use a quantity of 1. No form required. Locate or define the scope of work involved on the plans.

EACH ITEMS: Location must be summarized on the plans.

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

References

PPM Chapter
Index 21220

Other

Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

Details and Structure: Items 100 to 1999

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### 512-1- A MOVABLE BRIDGE-CONTROL HOUSE

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
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**Notes**

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**

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**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**
- **Prep & Doc Manual Chapter(s)** 7, 13

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct. 512-1- A MOVABLE BRIDGE-CONTROL HOUSE LS/LS**

A = 1 (Renovation)  
Blank (New)

### 512-71- A MOVABLE BRIDGE PLUMBING SYSTEM

<table>
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<th>EA</th>
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**Notes**

**Related Items**

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**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

- **Construction**
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).
512- 71-  A MOVABLE BRIDGE PLUMBING SYSTEM EA

A = Operation
1 (Furnish & Install)

Notes

514- 71-  A FILTER FABRIC, PLASTIC

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

Notes

Roadway Design and Structures Design should coordinate when this item is used.
Intended for Subsurface Drainage or Stabilization applications, as detailed in Section 514 of Specifications.

Related Items

Required
Design SHTabQuant
Construction Refer to Comp Book

Recommended 514-72 for impermeable liner
Design COM 700-050-01
Construction Refer to Comp Book

References

PPM Chapter
Other
Standards Index No. 199
Specifications
Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0100 Structures

514- 72- LINER IMPERMEABLE PVC

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

Notes

Details and Structure: Items 100 to 1999

Page 206 of 451
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**

**Forms**
- **Required**: Design
- **Recommended**: SHTabQuant

**Construction**
- **Design**: COMP 700-050-01
- **Refer to Comp Book**

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**
  - Plan Detail and/or Tech Spec Required
  - Prep & Doc Manual Chapter(s): 6, 7, 13

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

**Status**
- **Struct.**: 514-72-
- **LINER IMPERMEABLE PVC**
- **SY**

**Notes**

**515- 1- A PIPE HANDRAIL- GUIDERAIL**

**Unit**: LF; M1

**Accuracy**: Linear Foot; 10th of a Meter

**PlanQuantity?**: yes

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**

**Forms**
- **Required**: Design
- **Recommended**: SHTabQuant

**Construction**
- **Design**: COMP 700-050-03
- **Refer to Comp Book**

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
**Construction**

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

### References

**PPM Chapter**

**Other**

**Standards**

Index No. 870 (aluminum) or 880 (steel) only

**Specifications**

*Selected Items may require Tech Spec and/or Plan Detail

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

---

**Struct.** 515- 1- A  PIPE HANDRAIL- GUIDERAIL  LF

A =

1 (Steel) per Index 880
2 (Aluminum) per Index 870
5 (PVC)*

**Notes**

*Plan Details and/or Tech Spec required for PVC materials. Consider weather, UV requirements, etc.

---

**515- 2-ABB PEDESTRIAN/BICYCLE RAILING**

**Unit**  LF; M1  **Accuracy** Linear Foot; 10th of a Meter  **PlanQuantity?** yes

**Notes**

to be used for pedestrian railing next to drop-offs greater than 30". Use in accordance with Index 850 and 860; English standards may be used on metric projects. 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 vehicle containment is required.

For drop-off locations less than 30", consider item 515- 1. For other railings, refer to Index series 800 and pay item 460- 70-xxa.

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**

**Forms**

**Required**

**Recommended**

Design  SHTabQuant  COMP 700-050-03

**Construction**  Refer to Comp Book

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

**Construction**

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

**References**

**PPM Chapter**  Vol 1, Section 8.8

**Other**

**Standards**

Index No. 850 or 860

---

**Details and Structure:** Items 100 to 1999
Specifications

*Selected Items may require Tech Spec and/or Plan Detail

Prep & Doc Manual Chapter(s)

<table>
<thead>
<tr>
<th>TRNS*PORT Category (DRAFT FIELD):</th>
<th>0200 Roadway</th>
</tr>
</thead>
</table>

Status

Struct.  515- 2-ABB PEDESTRIAN/BICYCLE RAILING LF

A = Required Material Types
1 (Non Specified)
2 (Steel Only)
3 (Aluminum Only)
4 (Special)*

BB = Rail Type
01 (42” Picket Railing)
02 (54” Picket Railing)
03 (Special)*

Notes

**“Special” will require plan details and/or Tech Spec

519- 78- BOLLARDS

Unit EA Accuracy Each PlanQuantity? yes

Notes

Details

Tech Spec should indicate that this is a plan quantity item. Details to consider include: materials, methods and/or construction requirements.
Intended for posts placed at the ends of pedestrian or special-use facilities. Space as necessary to restrict certain vehicles, while allowing others.

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

Forms
Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 7, 13

Status

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway
520- 1- AA CONCRETE CURB AND GUTTER

Unit: LF; M1
Accuracy: Linear Foot; 10th of a Meter
PlanQuantity?: yes

Notes
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.

Related Items
Forms
Design: SHTabQuant

Required
Recommended
COMP 700-050-02 (with deductions) or 700-050-03 (no deductions)

Documentation
Design: Refer to Comp Book

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter
Other Standards Index No. 300
Specifications Prep & Doc Manual Chapter(s) 6, 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Struct. 520- 1- AA CONCRETE CURB AND GUTTER

Notes
**"Special" will require plan details and/or Tech Spec

520- 2- AA CONCRETE CURB

Unit: LF; M1
Accuracy: Linear Foot; 10th of a Meter
PlanQuantity?: yes

Notes
Details
Per specification, asphalt curb pad will be included in unit price, when detailed in the plans.

Related Items
Forms
Design: SHTabQuant

Required
Recommended
COMP 700-050-02 (with deductions)
**Construction**

Refer to Comp Book

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

**Notes**

**“Special”** will require plan details and/or Tech Spec

---

**Struct. 520-2- AA CONCRETE CURB LF**

<table>
<thead>
<tr>
<th>AA</th>
<th>1 (Type A)</th>
<th>2 (Type B)</th>
<th>4 (Type D)</th>
<th>9 (Special)*</th>
</tr>
</thead>
</table>

**Notes**

**“Special”** will require plan details and/or Tech Spec

---

## 520-3-

**VALLEY GUTTER, CONCRETE**

<table>
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<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
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**Notes**

**Details**

**Related Items**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Design</td>
<td>COMP 700-050-02 (with deductions) or 700-050-03 (no deductions)</td>
</tr>
</tbody>
</table>

**Documentation**

**Construction**

Refer to Comp Book

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

**Construction**

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

**References**

PPM Chapter

Other

Standards Index No. 300

Specifications

Prep & Doc Manual Chapter(s) 6, 7, 13
**TRNS*PORT Category (DRAFT FIELD):** 0200 Roadway

**Struct.** 520- 3- VALLEY GUTTER, CONCRETE LF

**Notes**

### 520- 4- CONCRETE GUTTER, SPECIAL

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Notes**

Calculate carefully to reflect actual scope of work.

**Details**

- Required
- Recommended

**Forms**

- Design: SHTabQuant
- COMP 700-050-02 (with deductions) or 700-050-03 (no deductions)

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**Related Items**

- PPM Chapter: 6, 7, 13

**References**

- Index No. 300

---

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

**Struct.** 520- 4- CONCRETE GUTTER, SPECIAL LF

**Notes**

### 520- 5- AB CONCRETE TRAFFIC SEPARATOR

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Notes**

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.

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

**Related Items**

- Required
- Recommended 520- 70 (2520- 70)

- Forms
  - Design: SHTabQuant
  - COMP 700-050-02 (with deductions) or 700-050-03 (no deductions)
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
NOTE: A= 1 Thru 6 Valid For Widths Of 4', 6' And 8.5' Only; B = 1, 2 Or 6 Only.
Selected items blocked 6/30/2001

520- 6- SHOULDER GUTTER, CONCRETE

Unit LF; M1 Accuracy Linear Foot; 10th of a Meter PlanQuantity? yes

Notes
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.

Related Items
Forms
Required SHTabQuant
Recommended COMP 700-050-02 (with deductions) or 700-050-03 (no deductions)

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter
Other
### 520-6- SHOULDER GUTTER, CONCRETE

**Unit**: LF

**Details**: Includes construction of traffic separator in variable width, as indicated in the plans. Refer to Plans Preparation Manual for proper use. Consider item 520-5 for constant width separator, paid per length.

### 520-70- CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M²</th>
<th>Accuracy</th>
<th>Square Yard; Square Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Notes**: Includes construction of traffic separator in variable width, as indicated in the plans. Refer to Plans Preparation Manual for proper use. Consider item 520-5 for constant width separator, paid per length.

**Related Items**

- **Required**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

- **Recommended**
  - Design: COMP 700-050-01

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

- **Construction**: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

- **PPM Chapter**
- **Other Standards**: Index No. 302
- **Prep & Doc Manual Chapter(s)**: 6, 7, 13

### 521-1- A MEDIAN CONCRETE BARRIER WALL

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**Details**: To be used when calling for concrete barrier wall that is to be located in a median (double face or full wall barrier); see 521-72- (2521-72-) for shoulder wall. Consists of construction of plain or reinforced barrier wall. The contractor may request approval for precast construction in lieu of cast-in-place.
**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
</tr>
<tr>
<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
</tr>
</tbody>
</table>

**References**

PPM Chapter

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

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

**Status**

**Struct. 521- 1- A** MEDIAN CONCRETE BARRIER WALL LF

A =

1 (Precast)
2 (Trapezoidal)

**Notes**

Items to be used in accordance with Standard Indexes. If any modification is made to a standard barrier, the "Special" pay item should be used. Details for any non-standard barrier must be submitted to the Structures Design Office for approval, due to crash testing requirements.

Include barriers located on approach slabs in this item.

Standard Indexes:

- Index 420 - 32" F-Shape
- Index 425: 42" F-Shape
- Index 421: 32" 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.

**521- 5- A CONCRETE TRAFFIC RAILING- BRIDGE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**

**Details**

Items to be used in accordance with Standard Indexes. If any modification is made to a standard barrier, the "Special" pay item should be used. Details for any non-standard barrier must be submitted to the Structures Design Office for approval, due to crash testing requirements.

Include barriers located on approach slabs in this item.

Standard Indexes:

- Index 420 - 32" F-Shape
- Index 425: 42" F-Shape
- Index 421: 32" 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.
**Construction**

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

**References**

**PPM Chapter**: SDG 6.7

**Other**: See detail for index numbers 420, 421, 422, 423, 424, 425, 480, 481, 482, 483, 5210

**Specifications**

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

**TRNS*PORT Category (DRAFT FIELD)**: 0100 Structures

**Status**

**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)* |
| 20 (F–Shaped with Sound Barrier Wall 8’Ht.) |

**Notes**

*See details above for use of "Special" item

---

**521-6- A  CONCRETE PARAPET**

**Unit** LF; M1  **Accuracy** Linear Foot; 10th of a Meter  **PlanQuantity?** yes

**Notes**

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

**Related Items**

**Forms**

Required SHTabQuant  **Recommended** COMP 700-050-03

Refer to Comp Book

**Documentation**

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

**Construction**

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

**References**

**PPM Chapter**: SDG 6.7

**Other**: See detail for index numbers 420, 421, 422, 423, 424, 425, 480, 481, 482, 483, 5210

**Specifications**

Index No. 820

---

Details and Structure: Items 100 to 1999
Struct. 521-6- A  CONCRETE PARAPET  LF

AA =
1 (Pedestrian/Bicycle)
2 (Special)*
3 (Retaining Wall System Mounted w/ Sidewalk)
4 (Retaining Wall System Mounted w/ sidewalk and 8’ Sound Wall)

Notes
**"Special" will require plan details and/or Tech Spec

521-7- AA  CONCRETE TRAFFIC RAILING BARRIER- RETAINING WALL SYSTEM

Unit  LF; M1  Accuracy  Linear Foot; 10th of a Meter  PlanQuantity?  yes

Notes
Details
Intended for 8’ retaining wall mounted sound barrier with junction slab.
Show location with quantity block on wall sheets

Related Items
Required  Recommended
Forms Design  SHTabQuant  COMP 700-050-03
Construction  Refer to Comp Book

Documentation
Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter
Other
Standards  5210
Specifications
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

A =
1 (F Shape with Sound Barrier Wall 8’ Ht.)

Notes

521-8- AA  CONCRETE TRAFFIC RAILING BARRIER- RETAINING WALL SYSTEM, MOUNTED WITH SLEEPER SLAB

Unit  LF; M1  Accuracy  Linear Foot; 10th of a Meter  PlanQuantity?  yes
Notes
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.

Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
</tr>
</tbody>
</table>

Forms
Refer to Comp Book

Documentation
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter

Standards
Index 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

Specifications

Prep & Doc Manual Chapter(s)

Status

Struct. 521-8- AA CONCRETE TRAFFIC RAILING BARRIER- RETAINING WALL SYSTEM, MOUNTED WITH SLEEPER SLAB

AA =
1 (32” F-Shape)
2 (42” F-Shape)
3 (32” Vertical Face)
4 (42” Vertical Face)
5 (Corral With Curb)
20 (Special)*

Notes
**“Special” will require plan details and/or Tech Spec

521-72- AA SHOULDER CONCRETE BARRIER WALL

Unit LF; M1 Accuracy Linear Foot; 10th of a Meter

Notes
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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
</tr>
</tbody>
</table>

Forms
Refer to Comp Book

Documentation
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
PLAN QUANTITY will be basis of payment to the Contractor.
Construction

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

References

PPM Chapter

Other

Standards

Specifications

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

TRNSPORT Category (DRAFT FIELD): 100 or 200 Structures or Roadway

Status

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)
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

521-73- CONCRETE BARRIER WALL- REMOVAL

Unit LF; M1 Accuracy Linear Foot; 10th of a 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. to be used for Roadway barrier only. For bridge barrier, refer to Structures Standards.

Related Items

Forms Required Recommended
Design SHTabQuant COMP 700-050-03

Construction

Documentations

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

References

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 6, 7, 13
### 522-1- CONCRETE SIDEWALK, 4" THICK

| Unit     | SY; M²       | Accuracy       | Square Yard; Square Meter | PlanQuantity? | yes |

**Notes**

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 retrofit 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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Design</th>
<th>SHTabQuant</th>
<th>COMP 700-050-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
<td></td>
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</table>

**Documentation**

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<tr>
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</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
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</table>

**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>Standards</td>
<td>Index No. 282, 304, 310, 515</td>
</tr>
<tr>
<td>Specifications</td>
<td></td>
</tr>
</tbody>
</table>

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

### 522-2- CONCRETE SIDEWALK, 6" THICK

| Unit     | SY; M²       | Accuracy       | Square Yard; Square Meter | PlanQuantity? | yes |

**Notes**

Refer to pay item 522-1 for details.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Design</th>
<th>SHTabQuant</th>
<th>COMP 700-050-01</th>
</tr>
</thead>
</table>

Details and Structure: Items 100 to 1999
Standards Index No. 282, 304, 310

Specifications

Struct. 522-2- CONCRETE SIDEWALK, 6" THICK SY

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

Documentation

Design Refer to Comp Book

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

Construction

References

PPM Chapter

Other

Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Active Structure

Notes

Details

Related Items

Forms

Required Design SHTabQuant

Recommended COMP 700-050-01

Construction Refer to Comp Book

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

References

PPM Chapter

Other

Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status Inactive Structure

Notes

Details

Related Items

Forms

Required Design SHTabQuant

Recommended COMP 700-050-01

Construction Refer to Comp Book

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

References

PPM Chapter

Other

Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status Inactive Structure

Notes

Details

Related Items

Forms

Required Design SHTabQuant

Recommended COMP 700-050-01

Construction Refer to Comp Book

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

Details and Structure: Items 100 to 1999
Notes
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.

Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
</tr>
</tbody>
</table>

Documentation

| Design | Location in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
|        | Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

References

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Notes

524- 1- A CONCRETE DITCH PAVEMENT- NON-REINFORCED

Unit SY; M2  Accuracy Square Yard; Square Meter  PlanQuantity? yes

Notes
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 and of furnishing and placing the filter fabric. Refer to Index 281 for additional information.

Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
</tr>
</tbody>
</table>

Documentation

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
|        | Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

References

PPM Chapter
Other
Standards Index No. 281
Specifications

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

4200 Roadway

Notes

Details

Related Items

Forms

Design

Required SBDTPS; SBDitchPvmt

Recommended COMP 700-050-01

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter

Other

Specifications

Prep & Doc Manual Chapter(s)

Index No. 281

Details

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

Notes

Details and Structure: Items 100 to 1999
## 524- 2- A CONCRETE SLOPE PAVEMENT (NON-REINFORCED)

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M2</th>
<th>Accuracy</th>
<th>Square Yard; Square Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**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 Forms
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

- Recommended Forms
  - Design: COMP 700-050-01
  - Construction: Refer to Comp Book

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
  - Construction: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

PPM Chapter

Other

Standards

Specifications

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

**Status**

**Struct.** 524- 2- A CONCRETE SLOPE PAVEMENT (NON-REINFORCED) SY

A =
1 (3")
2 (4")
3 (5")
4 (6")

**Notes**

**Related Items**

**Forms**

- Design: SHTabQuant
  - Construction: COMP 700-050-01

**Documentation**

- Design: Refer to Comp Book
  - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

PPM Chapter

Other

---

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

---

## 524- 2- AB CONCRETE SLOPE PAVEMENT (REINFORCED)

<table>
<thead>
<tr>
<th>Unit</th>
<th>SY; M2</th>
<th>Accuracy</th>
<th>Square Yard; Square Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**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**

**Forms**

- Design: SHTabQuant
  - Construction: COMP 700-050-01

**Documentation**

- Design: Refer to Comp Book
  - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

PPM Chapter

Other

---

**Details and Structure: Items 100 to 1999**

Page 224 of 451
Standards
Specifications
Prep & Doc Manual Chapter(s)

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

**Status**

**Struct.** 524- 2- AB  
**CONCRETE SLOPE PAVEMENT (REINFORCED)  SY**

A =
1 (3")
2 (4")
3 (5")
4 (6")

B =
9 (Reinforced)

**Notes**

---

**525- 1-**  
**ASPHALTIC CONCRETE CURB**

| **Unit** | LF; M1 | **Accuracy** | Linear Foot; 10th of a Meter | **PlanQuantity?** | yes |

**Notes**

**Details**

Not intended for temporary or MOT applications. Use in accordance with Index 300.

**Related Items**

<table>
<thead>
<tr>
<th><strong>Forms</strong></th>
<th><strong>Required</strong></th>
<th><strong>Recommended</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td>SHTabQuant</td>
<td>COMP 700-050-02</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>Refer to Comp Book</td>
<td></td>
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</table>

**Documentation**

| **Design** | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| **Construction** | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

**References**

<table>
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<th><strong>PPM Chapter</strong></th>
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<tr>
<td><strong>Prep &amp; Doc Manual Chapter(s)</strong></td>
<td>6, 7, 13</td>
</tr>
</tbody>
</table>

---

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

**Status**

**Struct.** 525- 1-  
**ASPHALTIC CONCRETE CURB  LF**

**Notes**

---

**526- 1- A**  
**PAVERS, ARCHITECTURAL**

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

---

Details and Structure: Items 100 to 1999  
Page 225 of 451
Notes
Details
Used for roadway and/or sidewalk applications.
For Patterned/Textured pavement (asphalt or concrete), use 523 items.

Related Items
Required
Design
SHTabQuant
Construction
Refer to Comp Book

Recommended
Design
COMP 700-050-01
Construction

Specifications

Standards

References
PPM Chapter

Notes

Details
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

Related Items
Required
SHTabQuant
COMP 700-050-01
Recommended

Forms
Design
Construction

Documentation
Design
Construction

Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD):
0800 Architectural

Struct.
526-1-A
PAVERS, ARCHITECTURAL

A =
1 (Roadway)
2 (Sidewalk)

Notes

References

Prep & Doc Manual Chapter(s)

Prep & Doc Manual Chapter(s)

PPM Chapter

Other

Standards

Index 304

Specifications

This pay item is to be used for applied device on existing ramps only (RETROFIT for previous projects), used in coordination with Index 304.

For new installations (ramps constructed under this project/proposal), use index 304; cost of detectable warning for new installations is included in the cost of the sidewalk.

Refer to specifications for a complete description of product.

527-1-
DETECTABLE WARNING ON WALKING SURFACE- RETROFIT

Unit
EA
Accuracy
Each
PlanQuantity?
no

Notes

Details
This pay item is to be used for applied device on existing ramps only (RETROFIT for previous projects), used in coordination with Index 304.

For new installations (ramps constructed under this project/proposal), use index 304; cost of detectable warning for new installations is included in the cost of the sidewalk.

Refer to specifications for a complete description of product.

Related Items
Required
SHTabQuant
COMP 700-050-03
Recommended

Forms
Design
Construction

Documentation
Design
Construction

Specifications

Prep & Doc Manual Chapter(s)

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Prep & Doc Manual Chapter(s)
530- 1- RIPRAP- SAND - CEMENT

Unit CY; M3  Accuracy 10th of a Cubic Yard; 10th of a Cubic Meter  PlanQuantity? no

Notes
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.

FINAL:
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
Forms
Required Design SHTabQuant  Recommended COMP 700-050-04
Construction 700-050-56

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter 6, 13
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway
Status
Struct. 530- 1- RIPRAP- SAND - CEMENT CY

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: \( W = \text{Vol.s} \times \text{S.G.} \times \text{Ww} \times \text{Vf} \)
\( W = \text{Weight of Stone} \)
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.  
Final measure, per specifications, will be by railroad scales, truck scales, or barge displacement.

### Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong></td>
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<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>700-050-56</td>
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<tr>
<td><strong>Documentation</strong></td>
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<tr>
<td>Design</td>
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</tr>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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### References

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<th>Construction</th>
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<tr>
<td>Other Standards Specifications</td>
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<td></td>
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</tbody>
</table>

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

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

### Status

**Struct.**  530- 3-  A  
RIPRAP- RUBBLE  
TN

A =  
3 (Bank & Shore)  
4 (Ditch Lining)

### Notes

Quantities should be based on 115 lbs per cubic foot (1840 kg per cubic meter).

### 530- 74-  BEDDING STONE

| Unit  | TN; MT | Accuracy  | 10th of a Ton; 10th of a Metric Ton | PlanQuantity? | no |
|-------|--------|-----------|-------------------------------------|---------------|

### Notes

Quantities should be based on 115 lbs per cubic foot (1840 kg per cubic meter).

### Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong></td>
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<tr>
<td>Design</td>
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<tr>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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### References

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</thead>
<tbody>
<tr>
<td>Other Standards Specifications</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Details and Structure: Items 100 to 1999
530- 76-  A  GABION MAT

Notes

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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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<tr>
<td>Forms</td>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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</tbody>
</table>

References

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

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

530- 76-  A  GABION MAT

A = Thickness
1 (6” Thick)
2 (9” Thick)
3 (18”)
4 (12”)

Notes
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
Forms
Required
Design
SHTabQuant
Recommended
Design
COMP 700-050-01

Construction
Refer to Comp Book

Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Design
Construction
Other

Standards
Specifications

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

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
Forms
Required
Design
SHTabQuant
Recommended
Design
COMP 700-050-01

Construction
Refer to Comp Book

Documentation
Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Design
Construction
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status Inactive Structure

Struct. 530-78- RIPRAP- ARTICULATING BLOCK SY

Notes

534-72-1AA SOUND BARRIERS- INCLUDING FOUNDATION

<table>
<thead>
<tr>
<th>Unit</th>
<th>SF; M2</th>
<th>Accuracy</th>
<th>Square Foot; 10th of a Square Meter</th>
</tr>
</thead>
</table>

Notes

Details

To be used for panel-type sound barrier (wall) construction. 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. 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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
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<tr>
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<td>COMP 700-050-01</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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Documentation

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

References

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Struct. 534-72-1AA SOUND BARRIERS- INCLUDING FOUNDATION SF

A=
01 (Permanent)
02 (Temporary)

Notes
### 536-1- AA GUARDRAIL

| Unit   | LF; M1 | Accuracy       | Linear Foot; 10th of a Meter | PlanQuantity? | yes |

#### Notes

**Details**

Consists of the construction of metal guardrail on posts of timber or steel as specified. 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.

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-). The cost of connecting the guardrail to the bridge railing is included in the cost of the guardrail.

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/pedestrian safety treatment is to be included in the cost of the guardrail, as indicated on standards. Document locations on summary table. Refer to PPM Vol 2, Chapter 7 for details.

#### Related Items

- **Required**: 339-1 (2339-1)
- **Recommended**: 536-7 and 536-8 (2536-7, 2536-8)

#### Forms

- **Design**: SBGDR; SBGuardrail
- **Construction**: Refer to Comp Book

#### Documentation

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- **Construction**: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

#### References

- **PPM Chapter**
- **Other**
- **Standards**: Index No. 400, 402
- **Specifications**

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

6, 7, 13

---

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

#### Status

**Struct.** 536-1- AA GUARDRAIL LF

\[
A = \\
1 \text{ (Roadway)} \\
2 \text{ (Bridge)} \\
3 \text{ (Roadway, Double Face)} \\
4 \text{ (Bridge, Double Face)} \\
5 \text{ (Roadway, Thrie Beam)} \\
6 \text{ (Bridge, Thrie Beam)} \\
8 \text{ (Roadway, With Rub Rail)} \\
9 \text{ (Roadway, Thrie Beam, Double Face)} \\
10 \text{ (Roadway, Weathering Steel)} \\
11 \text{ (Roadway, Modified Thrie Beam)} \\
12 \text{ (Roadway, Modified Thrie Beam, Double Face)}
\]

#### Notes

Details and Structure: Items 100 to 1999
GUARDRAIL- SHOP BENT PANELS

| Unit | LF; M1 | Accuracy | Linear Foot; 10th of a Meter | PlanQuantity? | yes |

**Notes**

**Details**

When this item is used, item 339-1 must be used.

**Related Items**

**Forms**

- Required: Design
- Recommended: SBGDRL; SBGuardrail

- Construction: Refers to Comp Book

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

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

**References**

PPM Chapter

Index No. 400

**Status**

Struct. 536-2 GUARDRAIL- SHOP BENT PANELS LF

GUARDRAIL POST, SPECIAL

| Unit | EA | Accuracy | Each | PlanQuantity? | no |

**Notes**

**Details**

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 536-1xxa (2536-1xxa) must be used.

**Related Items**

**Forms**

- Required: Design
- Recommended: SBGDRL; SBGuardrail

- Construction: Refers to Comp Book

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

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

**References**

PPM Chapter

Index No. 400

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway
536- 7- GUARDRAIL POST, SPECIAL EA

Notes

Status

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Struct. 536- 7- GUARDRAIL POST, SPECIAL EA

Notes

536- 8- A GUARDRAIL BRIDGE ANCHORAGE ASSEMBLY

Notes

Details

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. When this item is used, item 536- 1 (2536- 1) must be used. Remove: Plans or specs to indicate disposal or salvage instruction.

Related Items

Required Recommended
Forms Design SBGDRL; SBGuardrail COMP 700-050-03
Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter
Other
Standards Index No. 402
Specifications

Prep & Doc Manual Chapter(s) 7, 13

536- 8- A GUARDRAIL BRIDGE ANCHORAGE ASSEMBLY EA

A = Operation
Blank (Furnish & Install)
1 (Install)
2 (Furnish)
3 (Relocate)
6 (Remove)

Notes

536- 73- GUARDRAIL REMOVAL

Notes

Details

For single run, double face guardrail: measurement and payment are based on the single run length. Refer to specification for details.

Related Items

Required Recommended

Prep & Doc Manual Chapter(s) 7, 13

Details and Structure: Items 100 to 1999
536-73- GUARDRAIL REMOVAL LF

**Status**

**Struct.** 536-73- GUARDRAIL REMOVAL LF

**Notes**

---

**536-76- GUARDRAIL POSTS- SPECIAL LENGTH**

<table>
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**Details**

**Related Items**

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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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**Documentation**

| Design | SBGDR; SBGuardrail | COMP 700-050-03 |
| Construction | Refer to Comp Book | |

**Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.**

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

**References**

PPM Chapter

Other

Standards Index No. 400

Specifications

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

---

**536-82- GUARDRAIL ANCHORAGE- CONCRETE BARRIER WALL**

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**Details**

**Related Items**

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**Documentation**

| Design | SBGDR; SBGuardrail | COMP 700-050-03 |
| Construction | Refer to Comp Book | |

**Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.**

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

**References**

PPM Chapter

Other

Standards Index No. 400

Specifications

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

---

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

**Status**

**Struct.** 536-73- GUARDRAIL REMOVAL LF

**Notes**
**Details**

Independent stand alone anchorage to be used between guardrail and a fixed structure.

**Related Items**

<table>
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**Forms**

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

---

**GUARDRAIL ANCHORAGE- CONCRETE BARRIER WALL**

---

**GUARDRAIL POST REPLACEMENT**

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**Notes**

Details

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<td>Index No. 400</td>
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</table>

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

---

**GUARDRAIL POST REPLACEMENT**

**A =**

1 (Regular)
2 (Special)
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

#### 536- 85- AA GUARDRAIL END ANCHORAGE ASSEMBLY

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**Notes**
Includes furnishing and installing all necessary hardware, as shown in Standard Index 400.

**Related Items**

**Required** 536-  1

**Recommended**

**Forms**

**Design** SBGDRL; SBSGaradrail COMP 700-050-03

**Construction** Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**Standards** Index No. 400

**Specifications**

**PPM Chapter**

**Other**

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

---

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

**Status**

**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

#### 538-  1- GUARDRAIL- RESET

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<tr>
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<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

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. Refer to Section 3 of this Handbook for recommended pay item plan note. When this item is used, Item 339-  1 (2339-  1) must be used.

**Related Items**

**Required**

**Forms**

**Design** SBGDRL; SBSGaradrail COMP 700-050-03

**Recommended**

---

Details and Structure: Items 100 to 1999
539- 75-ABC GLARE SCREEN

Unit LF; M1  Accuracy Linear Foot; 10th of a Meter  PlanQuantity? no

Notes

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

Forms
Required  Recommended
Design SHTabQuant  COMP 700-050-03
Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References

PPM Chapter
Other
Standards Index No. 400
Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status Inactive Structure

Struct. 539- 75-ABC GLARE SCREEN LF

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC=00

Details and Structure: Items 100 to 1999
4 (Remove) BC=00
6 (Relocate) BC=00
B = Material
1 (Modular)
C = Height
1 (18")
2 (24")
3 (30")

Notes

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<tr>
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<tr>
<td>PlanQuantity?</td>
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Notes

Details

Related Items

Required | Recommended
---|---
Forms | Design SHTabQuant COMP 700-050-03
Construction | Refer to Comp Book

Documentation

Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References

PPM Chapter | Other
---|---
Standards | Index No. 461
Specifications

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

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

Status

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

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<th>540-</th>
<th>HIGH TENSION CABLE BARRIER SYSTEM WITH ANCHORS</th>
</tr>
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<tbody>
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</tr>
</tbody>
</table>
### Topic No. 600-000-002

#### Basis of Estimates

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity?**: no  
**Notes**: Future item; refer to developmental item 904-540-xx1

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<td>Linear Foot; 10th</td>
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<td>Future item; refer to developmental item 904-540-xx1</td>
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#### Struct. 540- HIGH TENSION CABLE BARRIER SYSTEM WITH ANCHORS pending

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### Topic No. 600-000-002

#### Basis of Estimates

**Unit**: EA  
**Accuracy**: Each  
**PlanQuantity?**: no  
**Notes**: 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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#### Struct. 542- 70- BUMPER GUARDS, CONCRETE

**Notes**

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

Struct. 542-70- BUMPER GUARDS, CONCRETE EA

Notes

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Struct. 544-74- AA RELOCATE VEHICULAR IMPACT ATTENUATOR / CRASH CUSHION

<table>
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</table>

Notes

Details Items to be installed in accordance with Standards and/or manufacturer's instructions.

Related Items

Required Recommended

Forms

Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter

Other

Standards Index No. 432, 433, 434, 435, 436, 438

Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Struct. 544-74- AA RELOCATE VEHICULAR IMPACT ATTENUATOR / CRASH CUSHION

AA =
8 (Cat)
9 (Brakemaster)
10 (Dragnet)
13 (React 350)
14 (Quadgard)
17-20 Hold
23 (SCI)
24 (Quest)

Notes

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Struct. 544-75- AA CRASH CUSHION- VEHICULAR IMPACT ATTENUATOR

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<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
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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

Details and Structure: Items 100 to 1999
### Design Standards

- AA =
  - Cat* 8
  - Brakemaster* 9
  - Dragnet* 10
  - React 350* 13
  - Quadguard* 14
  - Tracc* 16
  - QuadGuard Elite* 17
  - QuadGuard LMC* 18
  - QuadGuard LMA* 19
  - QuadTrend* 20
  - TAU-II* 21
  - Widetracc* 22
  - SCI* 23
  - Quest* 40

### Notes

- *AA=40 (Optional) should be used, unless there is a specific reason why options are limited to a single product.

### Reference

- PPM Chapter
- Other

---

**544-75- AA**

**CRASH CUSHION- VEHICULAR IMPACT ATTENUATOR EA**

### Unit and Accuracy

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### Forms

- Design: SHTabQuant
- Construction: Refer to Comp Book

### Documentation

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References

- PPM Chapter
- Other

---

**544-76- ATTENUATOR MODULES- SAND FILLED**

### Notes

### Related Items

### Forms

- Design: SHTabQuant
- Construction: Refer to Comp Book

### Documentation

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References

- PPM Chapter
- Other

---

Details and Structure: Items 100 to 1999
### 546-71- RUMBLE STRIP SETS

- **Unit**: PS
- **Accuracy**: Per Set
- **Plan Quantity?**: no

#### 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

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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
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<td>Documentation Construction</td>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

#### References

- **PPM Chapter**: Refer to Comp Book
- **Other Standards**: Index No. 518
- **Prep & Doc Manual Chapter(s)**: 6, 7, 13

---

### 546-72- AB RUMBLE STRIPS

- **Unit**: PM; KM
- **Accuracy**: 10th of a Mile; Kilometer
- **Plan Quantity?**: yes

#### 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.)

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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<table>
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<tr>
<th>References</th>
<th>PPM Chapter</th>
<th>Other</th>
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<tbody>
<tr>
<td>Standards</td>
<td>Index No. 518</td>
<td></td>
</tr>
<tr>
<td>Specifications</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**

**547-70- A**  RIPRAP, FABRIC-FORMED CONCRETE

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY; M2</td>
<td>Square Yard; Square Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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<tbody>
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<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COMP 700-050-01</td>
</tr>
</tbody>
</table>
Standards

Specifications

Struct. 547-70- A RIPRAP, FABRIC-FORMED CONCRETE SY

A =
1 (8" Filter Points)
2 (10" Filter Points)

Notes

548- AA-

RETAINING WALL SYSTEM

Unit SF; M2

Accuracy Square Foot; 10th of a Square Meter

Plan Quantity? yes

Details

Related Items

Forms Required Recommended
Design SHTabQuant COMP 700-050-01

Construction Refer to Comp Book

Documentation Design

Construction

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

References

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Struct. 547-70- A RIPRAP, FABRIC-FORMED CONCRETE SY

A =
1 (8" Filter Points)
2 (10" Filter Points)

Notes

548- AA-

RETAINING WALL SYSTEM

Unit SF; M2

Accuracy Square Foot; 10th of a Square Meter

Plan Quantity? yes

Details

Approved walls are listed on the Qualified Products List (QPL).
NOTE: Include item in TRNS*PORT Roadway Category.
Pay area based on area bounded by coping line, top of leveling pad, begin and end of wall. Barriers and parapets paid for separately (Items 521-8 and 521-6.)

For Cast-in-Place walls, refer to design standards and use Concrete (CY) and Reinforcing Steel (LB) items.

Related Items

Forms Required Recommended
Design SHTabQuant COMP 700-050-01

Construction Refer to Comp Book

Documentation Design

Construction

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

References

Prep & Doc Manual Chapter(s) 6, 7, 13
**TRNS*PORT Category (DRAFT FIELD):**  100 or 200 Structures or Roadway

**Status**

**Struct.**  548- AA-

- **RETYING WALL SYSTEM**
- **SF**

**AA = Type**
- 12 (Permanent) excluding barrier
- 13 (Temporary) excluding barrier
- 14 (Permanent- Widening) attached to existing wall

**Notes**

**550-10-ABC**  FENCING

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

Includes all fence, posts, and incidental materials. Gates to be paid under 550-60-ABC. Type 9 (Special) to be used for decorative fencing, other than A, B, or R. Tech Spec and/or plan details required to specify materials, installation, 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**

**Forms**

- **Required**
  - Design
  - Construction

- **Recommended**
  - Design
  - Construction

**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

**PPM Chapter**

**Other**

**Specifications**

- Indexes 800, 801, 802, 803, 810, 811, 812

*Selected Items may require Tech Spec and/or Plan Detail

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

---

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

**Status**

**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)  
9 (Special Feature) Features), other than coating, barbs, or enclosure  

Notes  
*A= Special for non-standard types (wood fence?)  
*B= Special for other than coatings or enclosure  
*A or B =9 may require Tech Spec and/or Plan Detail  

---  

<table>
<thead>
<tr>
<th>550- 60-ABC</th>
<th>FENCE GATE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>EA</td>
<td>Accuracy</td>
</tr>
<tr>
<td>Notes</td>
<td>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 &quot;special&quot; 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.</td>
<td></td>
</tr>
<tr>
<td>Related Items</td>
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<td>Recommended</td>
</tr>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SBFN; SBFence; SBFNTA; COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
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<tr>
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<tr>
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<td>SBFN; SBFence; SBFNTA; COMP 700-050-03</td>
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<tr>
<td>Other</td>
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<tr>
<td>Standards</td>
<td>Indexes 800, 801, 802, 803, 810, 811, 812</td>
<td></td>
</tr>
<tr>
<td>Specifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Selected Items may require Tech Spec and/or Plan Detail</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

**Status**  

**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

### 555- 1- A DIRECTIONAL BORE

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**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.

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.

**Related Items**  
**Forms**  
**Design**  
SHTabQuant  
COMP 700-050-03

**Construction**  
Refer to Comp Book

**Documentation**  
**Design**  
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**  
PPM Chapter  
Other  
Standards  
Specifications

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

---

**TRNSPORT Category (DRAFT FIELD):**  
0200 Roadway

**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

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### 556- 1- A  JACK AND BORE

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
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</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**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.

**Related Items**

**Required**

- SHTabQuant

**Recommended**

- COMP 700-050-03

**Forms**

**Design**

- Refer to Comp Book

**Construction**

- Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s) 7, 13

**Status**

**Struct.** 556- 1- A  JACK AND BORE  LF

**Notes**

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”)

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### 557- 1- A  VIBRATORY PLOWING

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
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<td>Construction</td>
<td>Refer to Comp Book</td>
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<tr>
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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

**Struct.  557-  1-  A**

**VIBRATORY PLOWING**

A = Diameter Of Casing
1 ( < 6”)
2 ( 6” to < 12”)
3 (12” to < 18”)

**Notes**

**560-  1-**

**PAINTING STRUCTURAL STEEL- REHAB**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/TN; LS/MT</th>
<th>Accuracy</th>
<th>Lump Sum (Ton); Lump Sum (Metric Ton)</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

**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.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
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**References**

<table>
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<th>Other</th>
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<td>Standards</td>
<td>Specifications</td>
</tr>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>6, 7, 13</td>
</tr>
</tbody>
</table>
563- A  ANTI-GRAFFITI COATING

Unit  SF; M2  Accuracy  Square Foot; 10th of a Square Meter  PlanQuantity?  yes

Notes  Pending specification change for July 2008: Measurement to be made by plan quantity.

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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-01</td>
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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
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</table>

Documentation

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

References

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards</td>
<td>Specifications</td>
</tr>
</tbody>
</table>

Prep & Doc Manual Chapter(s) 6, 7, 13
Effective January 2007 letting. Replaces several 570 items.

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 and 580. 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.

Per Section 570 specification, the Statewide Disputes Review Board specifications must be included on projects with this item.

Required

Design SHTabQuant

Recommended

COMP 700-050-01

Notes

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

571-1-AB PLASTIC EROSION MAT

Unit SY; M2

Accuracy Square Yard; Square Meter

PlanQuantity? no

Notes

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.

Related Items

Required

Design SHTabQuant

Recommended

COMP 700-050-01

Notes

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
**Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**
- **Other**
- **Standards** Index No. 199
- **Specifications**
- **Prep & Doc Manual Chapter(s)** 6, 7, 13

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

**Status**

**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**

580- 1- A LANDSCAPE COMPLETE

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

**Notes**

This item is for the complete installation of plants, in accordance with Specification Section 580, including all incidental work. 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.

Small plants are defined as:
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

Large plants are defined as:
shrub 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.

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 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**

<table>
<thead>
<tr>
<th><strong>Required</strong></th>
<th><strong>Recommended</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong> Design</td>
<td>SBTBLD COMP 700-050-05</td>
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<tr>
<td><strong>Construction</strong></td>
<td>Refer to Comp Book</td>
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**Documentation**

<table>
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</thead>
<tbody>
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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.</td>
</tr>
</tbody>
</table>
### Structure 580-1- A LANDSCAPE COMPLETE LS/LS

**A** = Plant Size  
1 (Small Plants) Includes incidental landscape work  
2 (Large Plants)

#### Notes

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

#### References

**PPM Chapter**

**Other**

**Standards**

**Specifications**

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

**TRNS*PORT Category (DRAFT FIELD):** 0600 Landscaping

**Status**

**Struct.** 580-1- A LANDSCAPE COMPLETE LS/LS

A = Plant Size  
1 (Small Plants) Includes incidental landscape work  
2 (Large Plants)

---

### 590-70- IRRIGATION SYSTEM

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

#### Notes

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

**Forms**

**Required**  
Design  
SBTBLD

**Recommended**  
Construction  
COMP 700-050-05  
Refer to Comp Book

**Documentation**

**Design**  
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

#### References

**PPM Chapter**

**Other**

**Standards**

**Specifications**

Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):** 0600 Landscaping

**Status**

**Struct.** 590-70- IRRIGATION SYSTEM LS/LS
604- 1- AB  
**SIGNALS- DATA COLLECTION**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LO; EA</th>
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<th>Per Location; Each</th>
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**Notes**
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**

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<tr>
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**Design**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

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<th>Specifications</th>
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**Prep & Doc Manual Chapter(s)**
7, 13

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Struct.**

604- 1- AB  
**SIGNALS- DATA COLLECTION**  
LO; EA

A = Type Of Location
1 (Intersection)
2 (Mid-Block)

B = Type Of Count
1 (Turning Movement)
2 (Approach)

**Notes**

**604- 2-AAB  
ANALYSIS & DOCUMENTATION- INTERSECTION**

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**Notes**
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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

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Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

### Status

**Struct.** 604-2-AAB ANALYSIS & DOCUMENTATION- INTERSECTION PA; EA

AA = (Number Of Intersections)

B = (Number Of Timing Patterns)

---

### Notes

This pay item is for traffic signals and traffic control devices only.

### 604-3-A TIMING IMPLEMENTATION

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Notes

Details

Related Items

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Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

### Status

**Struct.** 604-3-A TIMING IMPLEMENTATION PI

A = Controller Type

1 (Controller)

2 (Controller And Coordination Unit)
### 604- 4- INTERSECTION ANALYSIS & DOCUMENTATION

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**Related Items**

- **Forms**
  - **Design**: SHTabQuant
  - **Construction**: Refer to Comp Book

- **Documentation**
  - **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

- **PPM Chapter**: Design
- **Other**: Construction

- **Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD)**: 0500 Signalization

**Status**

**Struct.** 604- 4- INTERSECTION ANALYSIS & DOCUMENTATION PI

---

### 604- 5- A ARTERIAL ANALYSIS & DOCUMENTATION

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<td>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.</td>
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**Related Items**

- **Forms**
  - **Design**: SHTabQuant
  - **Construction**: Refer to Comp Book

- **Documentation**
  - **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction

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

References

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

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

Struct.  604-  5-  A ARTERIAL ANALYSIS & DOCUMENTATION PA; EA

A = Number Of Timing Patterns Per Section

1 (1 Timing Pattern)

2 (2 Timing Patterns)

3 (3 Timing Patterns)

5 (5 Timing Patterns)

6 (6 Timing Patterns)

8 (8 Timing Patterns)

Notes

Plan Detail and/or Tech Spec Required

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

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

Related Items

Required

Recommended

Forms

Design

SHTabQuant

COMP 700-050-03

Construction

Refer to Comp Book

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

References

PPM Chapter

Other

Standards

Index No. 17721

Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

Related Items

Required

Recommended

Forms

Design

SHTabQuant

COMP 700-050-03

Construction

Refer to Comp Book

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

Reference

PPM Chapter

Other

Standards

Index No. 17721

Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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Related Items

Required

Recommended

Forms

Design

SHTabQuant

COMP 700-050-03

Construction

Refer to Comp Book

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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References

PPM Chapter

Other

Standards

Index No. 17721

Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

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Related Items

Required

Recommended

Forms

Design

SHTabQuant

COMP 700-050-03

Construction

Refer to Comp Book

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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References

PPM Chapter

Other

Standards

Index No. 17721

Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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Related Items

Required

Recommended

Forms

Design

SHTabQuant

COMP 700-050-03

Construction

Refer to Comp Book

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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References

PPM Chapter

Other

Standards

Index No. 17721

Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status
Struct. 630-1 AB  SIGNALS- CONDUIT  LF

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (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

632-6 A  SIGNALS- CABLE

Unit LF; M1  Accuracy Linear Foot; 10th of a Meter
PlanQuantity? no

Details
This pay item is for traffic signals and traffic control devices only. 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
Design  SHTabQuant
Construction  Refer to Comp Book

Recommended
Design  COMP 700-050-03
Construction

Documentation
Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction  Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Standards  Index No. 17727
Specifications

Prep & Doc Manual Chapter(s)  7, 13

Status

TRNS*PORT Category (DRAFT FIELD): 0500  Signalization

Struct. 632-6 A  SIGNALS- CABLE  LF

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Adjust)

Notes

632-7 A  SIGNALS- CABLE

Details and Structure: Items 100 to 1999
### Topic No. 600-000-002

#### Basis of Estimates

**2008 Edition**

**May 28, 2008**

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**Notes**

This pay item is for traffic signals and traffic control devices only. 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.

**Details**

**Related Items**

**Forms** Required | Recommended  
**Design** SHTabQuant | COMP 700-050-03  
**Construction** Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
**Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

PPM Chapter  
Other

**Standards** Index No. 17727  
**Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Status**

**Struct.** 632-7-A  
**A = Operation**  
1 (Furnish & Install)  
2 (Furnish)  
3 (Install)  
4 (Adjust)

---

### 632-8-ABC SIGNALS- INTERCONNECT CABLE

<table>
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**Notes**

This pay item is for traffic signals and traffic control devices only.

**Related Items**

**Forms** Required | Recommended  
**Design** SHTabQuant | COMP 700-050-03  
**Construction** Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
**Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

PPM Chapter  
Other

**Standards** Index No. 17733  
**Specifications**

---

**Details and Structure: Items 100 to 1999**
**Prep & Doc Manual Chapter(s)**: 7, 13

**TRNS*PORT Category (DRAFT FIELD):** 0500  Signalization

**Status**

**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)
2 (Furnish)
3 (Install)

C = Type Of Interconnect Cable Installation
1 (Aerial)
2 (Underground)

**Notes**

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

**TRNS*PORT Category (DRAFT FIELD):** 0500  Signalization

**Structure**

**633-ABC-D ** **SIGNALS- FIBER OPTIC CABLE** **LF**

**Unit** LF; M1  **Accuracy** Linear Foot; 10th of a Meter  **PlanQuantity?** no

**Notes**

This pay item is for traffic signals and traffic control devices only. NOT TO BE USED FOR ITS Projects. Refer to 780 items.

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Related Items**

**Required**

**Recommended**

**Forms**
Design
Construction

**Design** SHTabQuant  COMP 700-050-03
Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

PPM Chapter
Other
Standards
Specifications

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

**Details and Structure**: Items 100 to 1999
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

634- 4-ABC SIGNALS- SPAN WIRE ASSEMBLY

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TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Struct. 634- 4-ABC SIGNALS- SPAN WIRE ASSEMBLY PI

A = Operation
   1 (Furnish & Install)
   2 (Furnish)
   3 (Install)
   4 (Adjust)

B = Type Assembly
   0 (One Wire) **5/22/08: effective date pending**
   1 (Two Wire)
   2 (Three Wire)

C = Type Span
   1 (Perpendicular)
   2 (Diagonal)
3 (Box)
4 (Other - As Shown In Plans)

Notes

<table>
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<tr>
<th>634- 5- A</th>
<th>SIGNALS- FIBERGLASS INSULATOR</th>
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<td><strong>PlanQuantity?</strong></td>
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**Notes**

Details
This pay item is for traffic signals and traffic control devices only.

Related Items

Forms

| Design          | SHTabQuant                      | COMP 700-050-03 |
| Construction    | Refer to Comp Book              |                |

Documentation

| Design          | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction    | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

References

PPM Chapter

Other

Standards

Specifications

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

**TRNS**PORT Category (DRAFT FIELD):  0500  Signalization

Status

Struct.  634- 5- A  SIGNALS- FIBERGLASS INSULATOR  LF

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

Notes

634- 6- A  SIGNALS- MESSENGER WIRE

**Notes**

Details
This pay item is for traffic signals and traffic control devices only.

Related Items

Forms

| Design          | SHTabQuant                      | COMP 700-050-03 |
| Construction    | Refer to Comp Book              |                |

Documentation

| Design          | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction    | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

Details and Structure: Items 100 to 1999
**634- 6- A**  
**SIGNALS- MESSENGER WIRE**  

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<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
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</table>

_A = Operation  
1 (Furnish & Install)  
2 (Furnish)  
3 (Install)_

**Notes**

This pay item is for traffic signals and traffic control devices only.

**Status**

**Struct.** 634- 6- A  
**SIGNALS- CABLE, ADJUST**  

**Status**

**Struct.** 634- 7-  
**SIGNALS- CABLE, ADJUST**  

**634- 7-**  
**SIGNALS- CABLE, ADJUST**  

<table>
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<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
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</table>

**Notes**

This pay item is for traffic signals and traffic control devices only.

**Related Items**

**Forms**

**Design** SHTabQuant  
**COMP 700-050-03**

**Construction** Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

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

**TRNS*PORT Category (DRAFT FIELD):** 0500  
**Signalization**

---

**635- 1- AB**  
**SIGNALS- PULL & JUNCTION BOXES**  

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<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
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</table>

**Notes**

This pay item is for traffic signals and traffic control devices only.  
NOT TO BE USED FOR ITS Projects. Refer to 780 items.  
Use in accordance with Section 635 of the specifications. For Special sizes, detail 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.

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<th>Related Items</th>
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<tr>
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<tr>
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<td>Index No. 17500, 17503, 17733</td>
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</table>

*Selected Items may require Tech Spec and/or Plan Detail

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

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Status**

**Struct.** 635- 1- AB SIGNALS- PULL & JUNCTION BOXES EA

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

B = Type Of Box
1 (Pull Box)
2 (Aerial Junction Box)
3 (Mounted Junction Box)
4 (Telephone Termination Assembly)
5 (Fiber Optics)
6 (Special)*

* Special may require Tech Spec and/or Plan Detail

**Notes**

**639- 1- AB** SIGNALS- ELECTRICAL POWER SERVICE

<table>
<thead>
<tr>
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**Notes**

This pay item is for traffic signals and traffic control devices only.

**Related Items**

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<tr>
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</tbody>
</table>

This pay item is for traffic signals and traffic control devices only.
### 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

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.

<table>
<thead>
<tr>
<th>Status</th>
<th>Struct. 639- 1- AB</th>
<th>SIGNALS- ELECTRICAL POWER SERVICE</th>
<th>AS</th>
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### 639- 2- A  SIGNALS- ELECTRICAL SERVICE WIRE

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<th>no</th>
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#### Notes

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.

| Details | | | |
|---------|----------------|--------------------------------|
|        | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

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

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**TRNS**PORT Category (DRAFT FIELD): 0500 Signalization

### Status

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A = Operation  
1 (Furnish & Install)  
2 (Furnish)  
3 (Install)
639- 3- AB SIGNALS- ELECTRICAL SERVICE DISCONNECT

**Unit** EA; AS  **Accuracy** Each; Assembly  **PlanQuantity?** no

**Notes**

**Details**
This pay item is for traffic signals and traffic control devices only.

**Related Items**

**Forms**

**Standard**

**Design** SHTabQuant  **Recommended** COMP 700-050-03

**Construction** Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

**PPM Chapter**

**Design**

**Construction**

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

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Status**

**Struct.** 639- 3- AB SIGNALS- ELECTRICAL SERVICE DISCONNECT EA; AS

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

B = Type Mount
1 (Pole)
2 (Cabinet)

639- 4- A SIGNALS- EMERGENCY GENERATOR

**Unit** AS  **Accuracy** Assembly  **PlanQuantity?** no

**Notes**

**Details**
This pay item is for traffic signals and traffic control devices only.

**Related Items**

**Forms**

**Design** SHTabQuant  **Recommended** COMP 700-050-03

**Construction** Refer to Comp Book

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

**PPM Chapter**

**Design**

**Construction**

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

**Other**

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Details and Structure: Items 100 to 1999  Page 267 of 451
### SIGNALS- EMERGENCY GENERATOR

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**Details:**
- A = Operation
- 1 (Furnish & Install)
- 2 (Modify)

**Notes:**
- This pay item is for traffic signals and traffic control devices only.

**Related Items**
- Required: SHTabQuant
- Recommended: COMP 700-050-03

**Forms Documentation**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards: Index No. 17725
- Specifications

### SIGNALS- STRAIN POLES, GUYING, CONCRETE

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**Notes:**
- This pay item is for traffic signals and traffic control devices only.

**Related Items**
- Required: SHTabQuant
- Recommended: COMP 700-050-03

**Forms Documentation**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards: Index No. 17725
- Specifications

### PRESTRESSED CONCRETE POLES

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**Notes:**
- Effective January 2008; replaces 641- AB-CDD

**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: SHTabQuant
- Recommended: COMP 700-050-03

**Forms Documentation**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).
Construction:  Refer to Comp Book

Design

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

Specifications

Specifications

Index No. 17725

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Struct.  641- 2- AB  PRESTRESSED CONCRETE POLES  EA

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

Valid through December 2007; replaced by 641-2-AB.

Details

This pay item is for traffic signals and traffic control devices only. to be used in accordance with Index.

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

Forms

Required

Design  SHTabQuant

Recommended

Construction  COMP 700-050-03

Documentation

Required

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Recommended

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

Index No. 17725

Specifications

*Selected Items may require Tech Spec and/or Plan Detail

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Struct.  641- AB-CDD PRESTRESSED CONCRETE POLES EA

A =
1 (Furnish & Install - With foundation)
2 (Furnish)
3 (Install) When A=3, B=0 And CDD=blank.
4 (Furnish & Install - Direct Burial)
5 (Install - Direct Burial) When A=5, B=0 and CDD=blank.

B = Pole Type
1 (Type N-II Service Pole)
2 (Type N-III Service Pole)
3 (Type N-IV)
4 (Type N-V)
5 (Type N-VI)
6 (Type N-VII)
7 (Type N-VIII)
8 (Special Design)*

C = Pole Design Status
1 (1991 Design Change)

DD = Pole Length

Notes

* Special may require Tech Spec and/or Plan Detail

643- 1- STRAIN POLES, GUYING, WOOD

Unit EA

Accuracy Each

Plan Quantity? no

Notes

Details

This pay item is for traffic signals and traffic control devices only.

Related Items

Required Recommended

Forms Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

References

PPM Chapter

Other

Specifications

Index No. 17356, 17727

Prep & Doc Manual Chapter(s) 7, 13

Details and Structure: Items 100 to 1999
**TRNS*PORT Category (DRAFT FIELD):** 0500  Signalization

**Status**

**Struct. 643-1-**  
**STRAIN POLES, GUYING, WOOD**  
**EA**

**Notes**

### 643-ABB- STRAIN POLES, WOOD

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<th>EA</th>
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**Notes**

**Details**  
This pay item is for traffic signals and traffic control devices only.

**Related Items**

**Required**  
**Design**  SHTabQuant  
**Construction**  COMP 700-050-03

**Recommended**  
**Design**  643-1- (2643-1)

**Forms**

**Construction**  Refer to Comp Book

**Documentation**

**Design**  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0500  Signalization

**Status**

**Struct. 643-ABB-**  
**STRAIN POLES, WOOD**  
**EA**

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

BB = Pole Length (Specified In 5' Increments Only)

**Notes**

### 649-1-AB STEEL STRAIN POLES

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<tr>
<th>Unit</th>
<th>EA</th>
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<th>Each</th>
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**Notes**

**Effective January 2008; replaces 649- A-BCC**

**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**
**Struct. 649-1-AB STEEL STRAIN POLES EA**

A= Operation
1 (Furnish & Install)
2 (Furnish)
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)
9 (Custom)*

* Custom may require Tech Spec and/or Plan Detail

### Notes

* Selected Items may require Tech Spec and/or Plan Detail

---

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

### Status

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

### Related Items

**Forms**
- **Design**: SHTabQuant
- **Construction**: COMP 700-050-03

**Documentation**
- **Design**: Refer to Comp Book

**Specifications**
- **Struct. 649-1-AB STEEL STRAIN POLES EA**

**Notes**

* Custom may require Tech Spec and/or Plan Detail

---

**649- A-BCC STRAIN POLES, STEEL**

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<th>Unit</th>
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**Notes**

Valid through December 2007; replaced by 649-1-AB.

**Details**

This pay item is for traffic signals and traffic control devices only.
Refer to Index No. 17723 for details. No PPM details; no additional sheets required.
Specify steel strain poles on the plan sheet. English standards may be used on metric projects. Required pole is selected by the Designer and noted 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**

**Forms**
- **Required**: SHTabQuant
- **Recommended**: COMP 700-050-03

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction  Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References  PPM Chapter
            Other
Standards  Index No. 17723
Specifications

*Selected Items may require Tech Spec and/or Plan Detail

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0500  Signalization

Status

Struct.  649- A-BCC  STRAIN POLES, STEEL  EA

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

B = Pole Type
1 (Type NS-IV)
2 (Type NS - V)
3 (Type NS-VI)
4 (Type NS-VII)
5 (Type NS - VIII)
6 (Type NS-IX)
7 (Type NS - X)
0 (Special)*

CC = Pole Height in even integers 20’ – 50’
20 = 20’
22 = 22’

Notes  *B=0 may require Tech Spec or Plan Detail


649- 1A-BBB  MONOTUBE ASSEMBLIES, STEEL

Unit   EA  Accuracy  Each  PlanQuantity?  no

Notes  Valid through December 2007.

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. Contact the Estimates Office to request replacement pay item(s). Tech Specs and/or Plan Details will 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.

         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). Structures Office will determine configuration required.
         Foundation included on standard; special foundation determined by structures engineer.

Details and Structure: Items 100 to 1999
Standards available in English units only; English standards may be used on metric projects. Special: Tech Spec and/or plan detail required. Coordinate with District Specs Office

Related Items

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<td>7, 13</td>
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TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Struct. 649- 1A-BBB MONOTUBE ASSEMBLIES, STEEL EA

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

BBB =
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

Effective January 2008; replaces 649-ABC-DEE

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.

B=9 (Custom) to be used only when specifications and/or standards do not apply, due to significant design changes.

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.

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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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<td></td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
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</tbody>
</table>

*Selected Items may require Tech Spec and/or Plan Detail

Prep & Doc Manual Chapter(s)

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Status**

**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*

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
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*

Notes  *BC=99 (Custom) for non-standard designs. Verify with Roadway Design Office prior to opening.

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<th>MAST ARM ASSEMBLY</th>
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</tr>
<tr>
<td>Details</td>
<td>This pay item is for traffic signals and traffic control devices only. Refer to Plans Preparation Manual- Vol I Chapter 29, Vol II Chapter 24, and/or Standards for details. Mast Arm Tabulation Sheet required in plans, in addition to tabulation of quantities. If a Mast Arm assembly is required that differs from the standards, then a special design is performed and the details placed in the plans. Mast Arms &quot;A&quot; to be replaced by &quot;B&quot;. Mast Arms &quot;B&quot; for 110 MPH wind w/signal backplate. Mast Arms &quot;C&quot; for 90 MPH wind w/signal backplate, or 110 MPH wind, without backplate. Arm and pole types, as noted in standards and pay item structure. Foundation design is included on standard. Special Foundation designs to be determined by Structures Engineer and included with the plans, if 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.</td>
</tr>
</tbody>
</table>

| Related Items | Required | Recommended |
| Form | Design | SHTabQuant |
| Construction | Refer to Comp Book |
| Documentation | Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. | Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |
| References | PPM Chapter | Other | Standards | Index No. 17741, 17743, and 17745 |
| Specifications | *Selected Items may require Tech Spec and/or Plan Detail |
| Prep & Doc Manual Chapter(s) | 7, 13 |

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

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<tr>
<th>Struct.</th>
<th>649-ABC-DEE</th>
<th>MAST ARM ASSEMBLY</th>
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<td>5 (Furnish / high loading)</td>
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<tr>
<td>6 (Install / high loading)</td>
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<td>7 (Furnish &amp; Install / reduced loading)</td>
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Details and Structure: Items 100 to 1999
8 (Furnish / reduced loading)
9 (Install / reduced loading)

B = Structure Type
1 (Single Arm Without Luminaire)
2 (Double Arm Without Luminaire)
3 (Single Arm With Luminaire)
4 (Special Design) C = 0, DEE = blank

C = First Arm Type (A=4-6)
1 (B1)
2 (B2)
3 (B3)
4 (B4)
5 (B5)
6 (B6)
7 (B7)

C = First Arm Type (A=7-9)
1 (C1)
2 (C2)
3 (C3)
4 (C4)
5 (C5)
6 (C6)
7 (C7)

D = Second Arm Type (A=4-6)
0 (No Second Arm)
1 (B1)
2 (B2)
3 (B3)
4 (B4)
5 (B5)
6 (B6)

D = Second Arm Type (A=7-9)
0 (No Second Arm)
1 (C1)
2 (C2)
3 (C3)
4 (C4)
5 (C5)
6 (C6)

EE = Upright Pole Type (A=4-6)
01 (Q1)
02 (Q2)
03 (Q3)
04 (Q4)
05 (Q5)
06 (Q6)
07 (Q21 Lum)
08 (Q22 Lum)
09 (Q23 Lum)
10 (Q24Lum)
11 (Special Design)
EE = Upright Pole Type (A=7-9)
01 (R1)
02 (R2)
03 (R3)
04 (R4)
650-5A-BCD TRAFFIC SIGNAL

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<th>Assembly</th>
<th>Plan Quantity?</th>
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**Notes**
This pay item is for traffic signals and traffic control devices only. Includes standard traffic signal, with LED indicators, and all other materials necessary for a complete and accepted installation.

Relocate: Includes the removal of the signal head and installation at the location shown in the plans. This includes signal cable and all other materials necessary for a complete and accepted relocation.

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**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
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<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</tr>
</tbody>
</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

<table>
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<th>PPM Chapter</th>
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<td>Construction</td>
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**Prep & Doc Manual Chapter(s)** 7, 13

**TRNSPORT Category (DRAFT FIELD):** 0500 Signalization

**Status**

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<tbody>
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<td></td>
</tr>
<tr>
<td>1 (Furnish &amp; Install)</td>
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<td></td>
</tr>
<tr>
<td>2 (Furnish)</td>
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<td></td>
</tr>
<tr>
<td>3 (Install) BCD=blank</td>
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<td></td>
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<tr>
<td>4 (Relocate) BCD=blank</td>
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<tr>
<td>B = Number Of Sections On Each Face</td>
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<tr>
<td>C = Number Of Directions</td>
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<tr>
<td>D = Type</td>
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<tr>
<td>1 (Standard) LED indicators</td>
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<td>2 (Light Weight)</td>
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Details and Structure: Items 100 to 1999
### PEDESTRIAN SIGNAL

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<th>Assembly</th>
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**Notes**

- This pay item is for traffic signals and traffic control devices only.

**Details**

- Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Related Items**

- Required: SHTabQuant
- Recommended: COMP 700-050-03

**Forms**

- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other Standards: Index No. 17764, 17784
- Specifications

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

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Struct.**

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<td>2 (Furnish)</td>
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<td></td>
</tr>
<tr>
<td>3 (Install)</td>
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<td>4 (Relocate) BC=00</td>
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<td>B = Type Signal</td>
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<td>1 (12&quot; Incandescent)</td>
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<td>2 (12&quot; Fiber Optic)</td>
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<td>3 (Optically Programmed)</td>
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<td>4 (Neon)</td>
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<td>5 (9&quot; Incandescent)</td>
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<td>6 (9&quot; Fiber Optic)</td>
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<tr>
<td>7 (Neon International Symbol Low Wattage)</td>
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<td>8 (LED)</td>
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<td>9 (LED- Countdown) STANDARD</td>
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<tr>
<td>C = Number Of Directions (Ways)</td>
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**Notes**

### SIGNAL HEAD AUXILIARIES

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**Notes**

- This pay item is for traffic signals and traffic control devices only.

**Details**

- Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).
**Basis of Estimates**

2008 Edition

May 28, 2008

---

**Related Items**

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<td><strong>Documentation</strong></td>
<td><strong>Design</strong></td>
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**References**

PPM Chapter

Other Standards

Specifications

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS**PORT Category (DRAFT FIELD): 0500 Signalization

**Status**

**Struct.** 659-ABB- SIGNAL HEAD AUXILIARIES EA

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

BB = 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**

**660- 1-ABB** LOOP DETECTOR, INDUCTIVE

| Unit | EA | Accuracy | Each | PlanQuantity? | no |

**Details**

This pay item is for traffic signals and traffic control devices only.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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<tbody>
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<td><strong>Forms</strong></td>
<td><strong>Design</strong></td>
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</table>

---

Details and Structure: Items 100 to 1999

Page 280 of 451
Standards
Specifications

Struct. 660-1-ABB LOOP DETECTOR, INDUCTIVE EA

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (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

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.
Includes cost of loop material, labor, etc. according to specifications.

Related Items

Required
Forms Design SHTabQuant

Recommended

COMP 700-050-03

Details and Structure: Items 100 to 1999
Standards

Specifications

Struct.  660-  2-ABB LOOP ASSEMBLY AS

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (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

Related Items

Forms

Documentation

References

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Notes

This pay item is for traffic signals and traffic control devices only.

Related Items

Forms

Documentation

References

Details and Structure: Items 100 to 1999
### 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.

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

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<tr>
<td>Construction</td>
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#### Documentation

| Design         | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction   | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

#### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

- Plan Detail and/or Tech Spec Required

### Notes

**Details and Structure: Items 100 to 1999**
## 665- AB- PEDESTRIAN DETECTOR

<table>
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<th>Unit</th>
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**Notes**
- This pay item is for traffic signals and traffic control devices only.
- For Relocate, ensure that plans/specs

**Related Items**
- Required
- Recommended

**Forms**
- Design: SHTabQuant
- Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other

**Standards**
- Index No. 17784

**Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):**
- 0500 Signalization

**Status**

**Struct. 665- AB- PEDESTRIAN DETECTOR EA**

- A = Operation
  - 1 (Furnish & Install)
  - 2 (Furnish)
  - 3 (Install)
  - 4 (Relocate) B=0

- B = Assembly Type
  - 1 (Pole Or Controller Cabinet Mounted Detector Station)
  - 2 (Detector Station With Post)
  - 3 (Detector With Sign Only)

---

## 668- AB- DETECTOR CABINET (SIGNS)

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
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<th>Each</th>
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**Notes**
- This pay item is for traffic signals and traffic control devices only.

**Related Items**
- Required
- Recommended

**Forms**
- Design: SHTabQuant
- Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
Standards
Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Struct. 668- AB- DETECTOR CABINET (SIGNALS) EA

A =
1 (Furnish & Install)
2 (Furnish)
3 (Install)

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

670- 4- A FLASHING BEACON CONTROLLER ASSEMBLY

Unit AS Accuracy Assembly Plan Quantity? no

Notes

Details
This pay item is for traffic signals and traffic control devices only.

Related Items
Required Recommended

Forms
Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other

Standards Index No. 17841
Specifications

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Struct. 670- 4- A FLASHING BEACON CONTROLLER ASSEMBLY AS

A =
1 (Furnish & Install)
2 (Furnish)
3 (Install)

Notes

Details and Structure: Items 100 to 1999
### 670- 5-ABC

**TRAFFIC CONTROLLER ASSEMBLY**

<table>
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<th>Unit</th>
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**Notes**
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

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<td>COMP 700-050-03</td>
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<td>Design</td>
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<td>Construction</td>
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**References**
- PPM Chapter
- Other

**Standards**

#### Specifications

*Selected Items may require Tech Spec and/or Plan Detail*

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

**Status**

**Struct.** 670- 5-ABC

**TRAFFIC CONTROLLER ASSEMBLY**

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<td>3 (Install)</td>
</tr>
<tr>
<td>4 (Modify)</td>
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<table>
<thead>
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<td>3 (Special)*</td>
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<td>1 (One Preemption Plan)</td>
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<td>2 (Two Preemption Plans)</td>
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**Notes**

* Special may require Tech Spec and/or Plan Detail

---

### 671- 2- AB

**TRAFFIC CONTROLLER**

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**Notes**
This pay item is for traffic signals and traffic control devices only.

---

Details and Structure: Items 100 to 1999  
Page 286 of 451
### Forms
- **Design**: SHTabQuant
- **Construction**: Refer to Comp Book

### Documentation
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**
- **Prep & Doc Manual Chapter(s)**: 7, 13

### Status

#### 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

#### 678-1-ABB CONTROLLER ACCESSORIES

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### Details
This pay item is for traffic signals and traffic control devices only.

### Related Items
**Required**

### Forms
- **Design**: SHTabQuant
- **Construction**: Refer to Comp Book

### Documentation
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**
- **Prep & Doc Manual Chapter(s)**: 7, 13

### Status

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization
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

680-ABB- SYSTEM CONTROL EQUIPMENT

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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

Forms
- Required
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

- Recommended
  - Design: COMP 700-050-03

Documentation

- Design
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Struct.  680-ABB- SYSTEM CONTROL EQUIPMENT EA
A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Modify)

BB = Item As Described
01 (CPU)
02 (Card Reader)
03 (Keyboard Printer)
04 (Line Printer)
05 (Disc Memory System)
06 (Communications Interface)
07 (Display Map Interface)
08 (Mag Type System)
09 (Keyboard CRT)
10 (Control Console)
11 (Roadside Master)
12 (Card Punch)
13 (Central Microcomputer Assembly)
14 (Central Modem Card)
15 (Autodial/Answer Ext Communications Modem)
16 (Fiber Optic, FSK Modem)

681-ABB- SYSTEM SOFTWARE

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Notes
Details
This pay item is for traffic signals and traffic control devices only.

Related Items
Required
Forms
Design
SHTabQuantLS
Construction
Refer to Comp Book

Forms
Construction
Use a quantity of 1. No form required. Locate or define the scope of work involved on the plans.
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Details and Structure: Items 100 to 1999
3 (Install) BB=00
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

682-ABB- SYSTEM DISPLAY

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Notes

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

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Forms

- Design: SHTabQuant
- Construction: Refer to Comp Book

Documentation

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References

PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Status

Struct. | 682-ABB- SYSTEM DISPLAY | EA

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Modify)

BB = Item As Described
Notes

683-ABB- SYSTEM COMMUNICATIONS

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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.

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Prep & Doc Manual Chapter(s) 7, 13

Plan Detail and/or Tech Spec Required

Status

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Struct. 683-ABB- SYSTEM COMMUNICATIONS LS/LS

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 ( Modify)

BB = Item As Described
01 (FDM)
02 (TDM)
03 (TDM Hardware)
04 (TDM Radio)
05 (TDM Coaxial)
06 (Central Site Radio)
07 (System Communications Modems)
08 (Voice Equipment)

Notes

Details and Structure: Items 100 to 1999
**684- AB-**  
**SYSTEM COMMUNICATIONS CARRIER**

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**Notes**

This pay item is for traffic signals and traffic control devices only.

**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**

**Forms**
- Design: SHTabQuant
- Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

**PPM Chapter**
- A = Operation
  - 1 (Furnish & Install)
  - 2 (Furnish)
  - 3 (Install)
- B = Item As Described
  - 1 (Multi-Pair Cable)
  - 2 (Coaxial Cable)
  - 3 (Lead Jacketed Coaxial Cable)
  - 4 (Fiber Optic Cable)

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

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Status**

**Struct.** 684- AB-

**SYSTEM COMMUNICATIONS CARRIER**

LF

**Notes**

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.

**685-ABB-**  
**SYSTEM AUXILIARIES**

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**Notes**

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.
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### Related Items

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### Plan Detail and/or Tech Spec Required

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

### TRNS*PORT Category (DRAFT FIELD):

- **0500** Signalization

### Status

**Struct.** 685-ABB-

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- **A** = Operation
- 1 (Furnish & Install)
- 2 (Furnish)
- 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

**686-ABB- CLOSED CIRCUIT TELEVISION EQUIPMENT**

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**Notes**

This pay item is for traffic signals and traffic control devices only.

**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**

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**Plan Detail and/or Tech Spec Required**

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

**TRNS*PORT Category (DRAFT FIELD):** 0500, Signalization

**Status**

**Struct.** 686-ABB- CLOSED CIRCUIT TELEVISION EQUIPMENT EA

**Details and Structure:** Items 100 to 1999

Page 294 of 451
A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)

BB = Item As Described
01 (Camera Assembly)
02 (Monitor)
03 (Recorder)
04 (Central Controls)
05 (Camera Support)
C 06 (Cable Plant)

Notes

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Notes
Details
This pay item is for traffic signals and traffic control devices only.

Related Items
Required
Forms
Design  SHTabQuant
Construction Refer to Comp Book

Documentation
Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction  Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0500  Signalization

Status
Struct.  690-10-  TRAFFIC SIGNAL HEAD ASSEMBLY, REMOVAL  EA

Notes

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Notes
Details
This pay item is for traffic signals and traffic control devices only.

Related Items
Required
Forms
Design  SHTabQuant
Construction Refer to Comp Book

Documentation
Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
### Construction
Record final quantity on the tabulation sheet (plans) or computation form (comp book).

#### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

#### Notes

- **Stand.** 690-20- SIGNAL PEDESTRIAN ASSEMBLY, REMOVE EA

### 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.

**Related Items**

- **Required**
- **Recommended**

**Forms**

- **Design**: SHTabQuant
- **Construction**: COMP 700-050-03

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

#### Notes

- **Struct.** 690-31- SIGNAL PEDESTAL- REMOVE EA

### 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.
  
  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.
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

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**PPM Chapter**

**Other**

**Standards**

**Specifications**

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

---

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

| 0500 | Signalization |

**Status**

**Struct.**

| 690- 32- A | POLE REMOVAL- SHALLOW EA |

A =

1 (Direct Burial)

2 (Bolt on Attachment)

---

**690- 33- A**

**POLE REMOVAL- DEEP**

| **Unit** | LF; M1 | **Accuracy** | Linear Foot; 10th of a Meter | **PlanQuantity?** | no |

**Notes**

This pay item is for traffic signals and traffic control devices only. Separate items exist for "shallow" and "deep" pole removal.

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.

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**

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Struct. 690-33- A POLE REMOVAL- DEEP LF

A =
1 (Direct Burial)
2 (Bolt on Attachment)

Notes

Related Items

Forms
Design Required SHTabQuant COMP 700-050-03

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s) 7, 13
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### 690- 80- SPAN WIRE ASSEMBLY REMOVE

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**Notes**

This pay item is for traffic signals and traffic control devices only.

**Related Items**

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</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

PPM Chapter Other Standards Specifications

Prep & Doc Manual Chapter(s) 7, 13

---

### 690- 90- REMOVE CONDUIT & CABLING

<table>
<thead>
<tr>
<th>Unit</th>
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<tbody>
<tr>
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**Notes**

This pay item is for traffic signals and traffic control devices only.

**Related Items**

<table>
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<th>Forms</th>
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<tr>
<td>Construction</td>
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**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

PPM Chapter Other Standards Specifications

Prep & Doc Manual Chapter(s) 7, 13

---
### 690-91- SIGNAL INTERCONNECT CABLE, REMOVE

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**Notes**
This pay item is for traffic signals and traffic control devices only.

**Details**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Related Items**

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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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**References**

- PPM Chapter
- Other
- Standards
- Specifications

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

- 7, 13

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### 690-100- SIGNAL EQUIPMENT, MISCELLANEOUS REMOVE

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<th>PlanQuantity?</th>
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**Notes**
This pay item is for traffic signals and traffic control devices only. Detail items to be removed in plans, by intersection.

**Details**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Related Items**

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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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</table>

**References**

- PPM Chapter
- Other

---
## Standards Specifications

Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0500  Signalization

**Status**

**Struct.**  690-100-  SIGNAL EQUIPMENT, MISCELLANEOUS REMOVE  PI

### Notes

#### 699- 1- AB  INTERNALLY ILLUMINATED SIGN

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<th>EA</th>
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<th>Each</th>
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**Details**

This item should be used when requested by maintaining agency.

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.

**Related Items**

**Forms**

<table>
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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

PPM Chapter

Other

Standards  Index No. 17748

Specifications

Prep & Doc Manual Chapter(s)  0500  Signalization

TRNS*PORT Category (DRAFT FIELD):  0500  Signalization

**Status**

**Struct.**  699- 1- AB  INTERNALLY ILLUMINATED SIGN  EA

A=Operation
blank (Furnish & Install)
1 (Furnish)
2 (Install)
3 (Modify)
B = Sign type
1(Street Name)

**Notes**

### 700- 20- AB  SINGLE POST SIGN

<table>
<thead>
<tr>
<th>Unit</th>
<th>AS</th>
<th>Accuracy</th>
<th>Assembly</th>
<th>PlanQuantity?</th>
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</table>

Details and Structure: Items 100 to 1999  Page 302 of 451
Effective July 2007 letting; replaces 700-40-A.

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)…"

Back-to-Back and/or multiple signs on a single post: Select the sign panel size (B= 1, 2, 3) based on the combined total sign area.

Standards limit single post sign area (wind resistance area from any one direction) to 20 SF.

B=9 Custom: For signs with a wind resistance area/ maximum projected area from any one direction greater than 20 SF, multi-post signs are recommended. If project conditions require a single post sign greater than 20sf, a custom (non-standard) sign may be used. Plan details will be needed. Verify with Roadway Design Office prior to opening/using pay item on a project.

Refer to design standards for single/multi-post requirements.

INSTALL: Install includes the installation of existing panel(s) on a new sign post.

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter
Other
Standards
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)
2 (Furnish)
3 (Install)
4 (Relocate) B=0
6 (Remove) B=0
B= Sign Panel Size, Square feet
1 (less than 12)
2 (12-20)
3 (20+ back-to-back)
9 (Custom)*

Notes
See Details for selecting B= Sign Panel Size.
*B=9 (Custom) for non-standard designs. Plan details will be necessary. Verify with Roadway Design Office prior to opening/using on a project.
### 700-21-AB  MULTI-POST SIGN

<table>
<thead>
<tr>
<th>Unit</th>
<th>AS</th>
<th>Accuracy</th>
<th>Assembly</th>
<th>PlanQuantity?</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

Effective July 2007 letting; replaces 700-41-AA.

**Details**

Includes sign panel, post, 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.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
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<tr>
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**Forms**

<table>
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<td>Refer to Comp Book</td>
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**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

Struct. 700-21-AB  MULTI-POST SIGN  AS

A= Operation
1  (Furnish & Install)
2  (Furnish)
3  (Install)
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.
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.

If lighting is needed, detail in plans (no separate 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**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Forms</strong></td>
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<td><strong>Construction</strong></td>
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| **Documentation** | **Design**           | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
|                   | **Construction**     | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

- PPM Chapter
- Other

**Specifications**

*Selected Items may require Tech Spec and/or Plan Detail*

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

**Struct.** 700-22-ABC OVERHEAD TRUSS SPAN SIGN AS

A= Operation
1 (Furnish & Install)
2 (Furnish)
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**
# OVERHEAD TRUSS CANTILEVER SIGN

**Unit**: AS  
**Accuracy**: Assembly  
**PlanQuantity?**: no

**Notes**: Effective January 2008 letting; replaces selected 700-42 to 700-46 items

**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.

If lighting is needed, detail in plans (no separate 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

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<tbody>
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<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
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</table>

**Forms**
- Design: SHTabQuant  
- Construction: COMP 700-050-03

**Documentation**
- Design: Refer to Comp Book  
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

*Selected Items may require Tech Spec and/or Plan Detail

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

---

**TRNS*PORT Category (DRAFT FIELD)**: 0300 Signing and Pavement Markings

**Struct.**

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<td>A= Operation</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>2 (Furnish)</td>
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<td></td>
</tr>
<tr>
<td>3 (Install) BC=00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (Relocate) BC=00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 (Remove) BC=00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B= Truss Span Length (feet)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (30 or less)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (31-40)</td>
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<td>3 (41-50)</td>
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</tr>
<tr>
<td>4 (over 50)</td>
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<tr>
<td>C= Sign Panel Size (square feet)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (100 or less)</td>
<td></td>
<td></td>
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<tr>
<td>2 (101-200)</td>
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<td>3 (201-300)</td>
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<td>4 (Greater than 300)</td>
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### 700-42-AAB OVERHEAD TRUSS SPAN SIGN

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**Notes**

Valid through December 2007; replaced by 700-22 and 700-23 items.

**Details**

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.

**Related Items**

**Required**
- Design: SHTabQuant
- Construction: COMP 700-050-03

**Recommended**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards: Index No. 11200
- Specifications

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

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Struct.** 700-42-AAB OVERHEAD TRUSS SPAN SIGN 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)
- 12 (221 - 240)
- 13 (241 - 260)
- 14 (261- 280)

- B = Square Footage Of Sign Panel
- 1 (100 Or Less)
- 2 (101 - 200)
- 3 (201 - 300)
- 4 (301 - 400)
- 5 (401 - 500)
- 6 (501 - 600)
- 7 (601 - 700)
- 8 (Over 700)
### 700- 43- AB  OVERHEAD TRUSS CANTILEVER SIGN

<table>
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<tr>
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<th>AS</th>
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<td></td>
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<td>7, 13</td>
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</table>

**TRNS*PORT Category (DRAFT FIELD):** 0300  Signing and Pavement Markings

**Struct.** 700- 43- AB  OVERHEAD TRUSS CANTILEVER SIGN  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 - 100)
  - 3 (101 - 150)
  - 4 (151 - 200)
  - 5 (201 - 250)
  - 6 (251 - 300)
  - 7 (Over 300)

**Notes**
Valid through December 2007; replaced by 700-22 and 700-23 items.

Includes sign panels, overhead structure, foundations, 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 foundation must be shown in the plans. Includes all components listed in the Standards and all external conduit and conductors for the service.

### Required

**Design**
SHTabQuant

**Construction**
Refer to Comp Book

### Recommended

**Design**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**Standards**
Index No. 11200, 17505

**Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):**
0300  Signing and Pavement Markings

**Struct.**
700-44-AAB  LIGHTED OVERHEAD TRUSS SPAN SIGN  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)
12 (Over 220)

B = Square Footage Of Sign Panel
1 (100 Or Less)
2 (101 - 200)
3 (201 - 300)
4 (301 - 400)
5 (401 - 500)
6 (501 - 600)
7 (601 - 700)
8 (Over 700)

---

**Unit**
AS

**Accuracy**
Assembly

**PlanQuantity?**
no

---
Valid through December 2007; replaced by 700-22 and 700-23 items.

Includes sign panels, overhead structure, foundations, 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 foundation must be shown in the plans. Includes all components listed in the Standards and all external conduit and conductors for the service.

Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
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<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
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Forms

Design: SHTabQuant
Construction: Refer to Comp Book

Documentation

Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

Specifications

PPM Chapter

Prep & Doc Manual Chapter(s) 7, 13

Notes

Details and Structure: Items 100 to 1999

---

Notes

Selected Items blocked; B=1 & 2 valid through 6-30-07; B=3 & 4 valid through 12-31-07. Replaced by 700-20 to 700-23 items.

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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
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<td>Construction</td>
<td>Refer to Comp Book</td>
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<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
<tr>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>7, 13</td>
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**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

<table>
<thead>
<tr>
<th>Status</th>
<th>Struct. 700-46-AB</th>
<th>EXISTING SIGN</th>
<th>AS</th>
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<tbody>
<tr>
<td>A = Operation</td>
<td>1 (Remove)</td>
<td>2 (Relocate)</td>
<td>3 (Install)</td>
</tr>
<tr>
<td>B = Sign Assembly Type</td>
<td>1 (Single Post) valid through 6/07</td>
<td>2 (Multi-Post) valid through 6/07</td>
<td>3 (Overhead Truss) valid through 12/07</td>
</tr>
</tbody>
</table>

**Notes**

This item is for the sign panel only. For posts, structures, etc, refer to other Section 700 items.

The FURNISH AND INSTALL item includes the sign panel and materials required for installation. The INSTALL item includes the materials required for installation. The sign panel will be furnished. 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.

<table>
<thead>
<tr>
<th>Related Items</th>
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</thead>
<tbody>
<tr>
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**Details**

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<th>PlanQuantity?</th>
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<tbody>
<tr>
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<td>no</td>
</tr>
</tbody>
</table>

**Notes and Structure:** Items 100 to 1999
Standards
Specifications

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

TRNS*PORT Category (DRAFT FIELD): 0300 Signing and Pavement Markings

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

Forms Design SHTabQuant COMP 700-050-03

Documentation Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Refer to Comp Book

8 (15 Or Less)
quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

Struct. 700-70- SIGN, LIGHTED OVERHEAD- BRIDGE MOUNTED AS

---

### 700-82- OVERHEAD SIGN- SPAN WIRE MOUNTED

**Unit** AS

**Accuracy** Assembly

**PlanQuantity?** no

**Notes**

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**

**Forms**

Required

Design

SHTabQuant

Recommended

Construction

COMP 700-050-03

**Documentation**

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

Struct. 700-82- OVERHEAD SIGN- SPAN WIRE MOUNTED AS

---

### 700-83- OVERHEAD SIGN- BRIDGE MOUNTED

**Unit** AS

**Accuracy** Assembly

**PlanQuantity?** no

**Notes**

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.

<table>
<thead>
<tr>
<th>Related Items</th>
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<tbody>
<tr>
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<td>7, 13</td>
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**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Struct.** 700-83- OVERHEAD SIGN- BRIDGE MOUNTED AS

---

**700-89- AA ELECTRIC POWERED SIGN**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>Plan Quantity?</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>EA</td>
<td>Each</td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

**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**

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<tr>
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<th>Recommended</th>
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<tbody>
<tr>
<td>Forms</td>
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<td>Documentation</td>
<td>Design</td>
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<tr>
<td></td>
<td>Construction</td>
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</tbody>
</table>

**Prep & Doc Manual Chapter(s)** 7, 13
Struct. 700-89-AA ELECTRIC POWERED SIGN EA

AA =
2 (Blank-Out)
3 (Changeable Message - Fiber Optics)*
4 (Changeable Message - Light Bulb Matrix)*
5 (Changeable Message - Electromagnetic Disk Matrix)*
6 (Changeable Message - Drum - Type)*
7 (Changeable Message - Vane Matrix)*
8 (Lane Control - Vane Matrix)
9 (Changeable Message - Flap Type)*
10 (Changeable Message - Tricolor)*
11 (Special)**

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; see item 700-94.

---

700-90-AB SIGN, FLASHING BEACON

<table>
<thead>
<tr>
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<th>AS</th>
<th>Accuracy</th>
<th>Assembly</th>
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Notes
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.

Related Items
<table>
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<tr>
<th>Forms</th>
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<tbody>
<tr>
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<td>Construction</td>
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Documentation
| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

References
<table>
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<td>Other</td>
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<td>Standards</td>
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<td>Specifications</td>
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</table>

Prep & Doc Manual Chapter(s) 7, 13
### 700- 94-

#### RADAR SPEED DISPLAY UNIT

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>no</td>
<td></td>
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</tbody>
</table>

**Notes**
- DO NOT OPEN- New Item(s) under development.

**Details**
- Standards and/or Specifications are under development by the State Traffic Ops Office. New Item expected to be 698-xxx.
- This item for permanent installations only; for temporary installations, refer to 102 items.
- Tech Spec should indicate that unit includes sign, radar unit, post, cabinet, power connection(s), and incidentals necessary for a complete unit.

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**

**Forms**
- **Design**: SHTabQuant
- **Construction**: Refer to Comp Book

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

- Plan Detail and/or Tech Spec Required
- Prep & Doc Manual Chapter(s)

---

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

0300  Signing and Pavement Markings

**Status**

**Struct.** 700- 94-  RADAR SPEED DISPLAY UNIT  EA

**Notes**
- DO NOT OPEN- see details

---

### 700- 95-

#### MOTORIST INFORMATION SIGN (BLUE)

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>no</td>
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</tr>
</tbody>
</table>

**Notes**
- Inactive structure

**Details**
- Maintenance item (?) intended for blue information signs and/or logo program.

**Related Items**

**Forms**
- **Design**: SHTabQuant

---

Details and Structure: Items 100 to 1999
Standards
Specifications

Struct.  700- 95- MOTORIST INFORMATION SIGN (BLUE) EA

Notes
Status Inactive Structure

Documentation
Design RCAG  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0300 Signing and Pavement Markings

701- 1A-BCD AUDIBLE AND VIBRATORY PAVEMENT MARKINGS

Unit Mixed Accuracy Refer to item structure and details PlanQuantity? no

Notes Effective with the September 2008 letting; replaces Developmental 906-701 items


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.

Accuracy: GM and NM items are measured to 1/1000 of a mile.

Related Items Required Recommended
Forms Design
Documentation Design
Construction
References PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)
**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

**Struct. 701-1A-BCD**

AUDIBLE AND VIBRATORY PAVEMENT MARKINGS

- **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**

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

**Struct. 702-??**

WET WEATHER MARKINGS ?? INVERTED RIB PROFILE MARKINGS

- **Unit** Mixed
- **Accuracy** Refer to item structure and details
- **PlanQuantity?**

**Notes**

Future Effective Date: See 906-702 items.

**Details**

**Related Items**

- **Required** SHTabQuant
- **Recommended** COMP 700-050-03

**Forms**

- **Design** Refer to Comp Book
- **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Documentation**

**References**

- PPM Chapter
- Other
- Standards
- Specifications

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

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

**Struct. 702-??**

WET WEATHER MARKINGS ?? INVERTED RIB PROFILE MARKINGS

**Notes**

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

**Struct. 704-1-AB**

CERAMIC PAVEMENT MARKERS

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

**Notes**

**Details**

**Related Items**

- **Required**
- **Recommended**

Details and Structure: Items 100 to 1999
Standards Index No. 17346
Specifications

Struct. 704-1-AB CERAMIC PAVEMENT MARKERS EA
A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
B =
1 (Class A)
3 (Class C)

Notes

TRNS*PORT Category (DRAFT FIELD): 0300 Signing and Pavement Markings

Struct. 704-1-AB CERAMIC PAVEMENT MARKERS EA
A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
B =
1 (Class A)
3 (Class C)

Notes

New items to be effective January 2008.

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 3C.

Refer to Delineators for marking the roadway alignment

Related Items Required Recommended 705-11

Forms Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Documentation Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References PPM Chapter
Other
Specifications

Prep & Doc Manual Chapter(s) 7, 13

Details and Structure: Items 100 to 1999
TRNS*PORT Category (DRAFT FIELD): 0300 Signing and Pavement Markings

Status

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 3C.

705-11- A DELINEATOR

Unit EA Accuracy Each PlanQuantity? no


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.

********************************
Refer to Object Markers to mark obstructions.

Related Items

Required Recommended 705-10

Forms Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter Vol 1, 7.2.9

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

Status

Struct. 705-11- A DELINEATOR EA

A= Type
1 (Flexible Tubular)
2 (non-Flexible)
3 (Flexible High Visibility Median)
4 (Flexible High Performance)

Notes

706-3- RETRO-REFLECTIVE PAVEMENT MARKER

Details and Structure: Items 100 to 1999
### Topic No. 600-000-002

#### Basis of Estimates

**2008 Edition**  
**May 28, 2008**

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

### Notes

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.

### Related Items

**Required**  
**Recommended**

### Forms

- **Design**: SHTabQuant  
- **Construction**: Refer to Comp Book

### Documentation

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References

**PPM Chapter**  
**Other**

**Standards**: Index No. 17345, 17352

**Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD)**: 0300  
**Signing and Pavement Markings**

### Structural

- **706-3-**: RETRO-REFLECTIVE PAVEMENT MARKER  
- **EA**

### Notes

#### 709-1A-BCD

TRAFFIC STRIPE- TWO REACTIVE COMPONENTS

**Unit**: EA, LF, GM, NM; GK, NK  
**Accuracy**: Each; Linear Foot; 1/1000  
**PlanQuantity?**: mile

**Notes**: Effective January 2007 letting. Replaces all other 709 items.

**Details**: Consists of paint used in areas representing final and work zone pavement markings. Refer to the Specification for the complete Method of Measurement. 
Broken (skip) stripes shall consist of a succession of solid stripes. 
LINEAR FOOT ITEMS: The linear foot quantity shall be used to pay for 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 ITEMS: 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.

### Related Items

**Required**  
**Recommended**

### Forms

- **Design**: SHTabQuant  
- **Construction**: COMP 700-050-03  
- **Construction**: 700-050-52

### Documentation

- **Design**:  
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References

**PPM Chapter**  
**Other**
Standards
Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0300 Signing and Pavement Markings

Status

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) LF

D= Width
1 (6")
2 (8")
3 (12")
4 (18")
5 (24")

Notes C= 6 to 9 for messages, arrows, etc are not valid for 709. Consider using preformed Thermoplastic or other material.

710-1A-BCD PAINTED PAVEMENT MARKINGS

Unit Mixed Accuracy Refer to item structure PlanQuantity? no and details

Notes Effective January 2007 letting; replaces most other 710 items. 6-29-07: Updated detail and C=8 for Yield Line, LF

Details Consists of paint used in areas representing final and work zone pavement markings. Refer to the Specification for the complete Method of Measurement. Broken (skip) stripes shall consist of a succession of solid stripes.

LINEAR FOOT ITEMS: Intended for all solid stripe 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 ITEMS: Intended for all 6" solid stripe. The gross mile quantity shall also 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.

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 items 710-17 is 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 removal of thermo prior to applying more thermo because the maximum thickness will be exceeded if it 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.

CONTRASTING ALTERNATING SKIP: Use one application of white skip thermoplastic and one application of black skip paint.

Note: Accuracy for LF items is per Linear Foot, Mile items to 1/1000th of a mile, and Square Foot items to the nearest square foot.

<table>
<thead>
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<th>Related Items</th>
<th>Required</th>
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</table>

**TRNS*PORT Category (DRAFT FIELD):** 0300 Signing and Pavement Markings

**Status**

**Struct.**

710-1A-BCD

**PAINTED PAVEMENT MARKINGS**

| A= Class
| 1 (Standard)
| 7 (Remove) SF, BCD=blank
| B= Color
| 1 (White)
| 2 (Yellow) C=1, 2, 3, 4, 5, 9
| 3 (Black)
| 4 (Blue)
| C= Type of Marking
| 1 (Solid) NM; D = 1
| 2 (Solid) LF; D = 2, 3, 4, 5
| 3 (Skip) GM; D= 1 or 2*
| 4 (Skip) LF; D= 1 or 2*
| 5 (Dotted / Guide line) 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")

Details and Structure: Items 100 to 1999
### 710- 90- PAINTED PAVEMENT MARKINGS- FINAL SURFACE

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

**Notes**  
Includes payment for final surface pavement markings (2 applications), including RPMs (1 application).  
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, include 710-90 pay item for final surface; do not include other 710 or 706-3 items.

**Related Items**

<table>
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<tbody>
<tr>
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<tr>
<td>Construction</td>
<td>700-050-52</td>
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</table>

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- **Construction**: Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

**References**

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

**TRNS*PORT Category (DRAFT FIELD)**: 0300 Signing and Pavement Markings

**Status**

- **Struct.**: 710- 90- PAINTED PAVEMENT MARKINGS- FINAL SURFACE LS/LS

---

### 711- 1A-BCD THERMOPLASTIC

**Unit**: Mixed  
**Accuracy**: Refer to item structure and details  
**PlanQuantity?**: no

**Notes**

Consists of paint used in areas representing final and work zone pavement markings. Refer to the Specification for the complete Method of Measurement. Broken (skip) stripes shall consist of a succession of solid stripes. LINEAR FOOT ITEMS: The linear foot quantity shall be used to pay for 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 ITEMS:** 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.

**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 LINES:** Per the MUTCD, a Yield line is a series of solid white triangles pointing toward approaching vehicles, used at an intersection controlled by a yield sign.

---

### Related Items

<table>
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<th>Recommended</th>
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<tbody>
<tr>
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</tr>
<tr>
<td><strong>Construction</strong></td>
<td>700-050-52</td>
</tr>
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<td><strong>Documentation</strong></td>
<td><strong>Design</strong></td>
</tr>
<tr>
<td><strong>Construction</strong></td>
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### Standards

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### References

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### TRNS*PORT Category (DRAFT FIELD): 0300 Signing and Pavement Markings

## Status

### Struct.

<table>
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<th>711- 1A-BCD</th>
<th>THERMOPLASTIC</th>
<th>Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A=Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Standard)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (Refurbishment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (Hot Spray)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (Preformed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 (Remove) SF Note: When A=7, BCD=blank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B=Color</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (White)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (Yellow)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (Black) **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (Blue)***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*when B=2, C=1, 2, 3, 4 or 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**B=3 not valid as of 12-15-05; use 710 items.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>***when B=4, C=2, 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C= Type of Marking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Solid) NM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (Solid) LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (Skip) GM*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (Skip) LF*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 (Dotted/Guideline) LF**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 (Message) EA *** Includes Yield Messages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 (Arrows) EA ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 (Yield Line) LF ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*when C=3, D=1, 2, or 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*when C= 4, D=1 or 2</td>
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</tr>
<tr>
<td>**when C=5, D=1</td>
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</tbody>
</table>
### Topic No. 600-000-002

#### Basis of Estimates

2008 Edition

May 28, 2008

---

***when C= 6, 7, or 8, D=0

D= Width

1 (6")

2 (8")

3 (12")

4 (18")

5 (24")

#### Notes

Note: Mile (kilometer) units only valid with 6" or 8" stripes

Note: Accuracy for LF items is per Linear Foot, Mile items to 1/1000th of a mile, and Square Foot items to the nearest square foot.

---

### 713-1AA-BCD  PAVEMENT MARKING- PREFORMED TAPE

<table>
<thead>
<tr>
<th>Unit</th>
<th>Mixed</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

#### Notes

to be considered for use on concrete surfaces.

High performance tapes are required for longitudinal markings; standard tapes are limited to transverse lines, arrows, and messages.

#### Details

- **Required**
  - Design: SHTabQuant
  - Construction: 700-050-52

- **Recommended**
  - Design: COMP 700-050-03
  - Construction: 700-050-52

#### Related Items

- **Forms**
  - Design
  - Construction

- **Documentation**
  - Design
    - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction
    - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

#### References

PPM Chapter

Other

Standards

Specifications

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

---

**TRNS**PORT Category (DRAFT FIELD): 0300 Signing and Pavement Markings

#### Status

- **Struct.** 713-1AA-BCD  PAVEMENT MARKING- PREFORMED TAPE  Mixed

  - AA= Class*
    - 01 (Standard)
    - 02 (High Performance)
    - 03 (Temporary)
    - 07 (Removal) SF, BCD=blank
  - B= Color
    - 1 (White)
    - 2 (Yellow)
    - 3 (Black)
    - 4 (Blue)
    - 5 (White w/Black Contrast)**
  - C= Type of Marking
    - 1 (Solid) NM
    - 2 (Solid) LF

---

Details and Structure: Items 100 to 1999

Page 326 of 451
3 (Skip) GM  
4 (Skip) LF  
5 (Dotted / Guideline) LF  
6 (Messages) EA, D=0  
7 (Arrows) EA, D=0  

D= Width  
0 when C=6, 7  
1 (6")  
2 (8")  
3 (9")**  
4 (12")  
5 (18")  
6 (24")

**Note (effective 1-1-2007) : 9" black/white contrast will be paid per linear foot.  
Note (through 12-31-2008): Mile (kilometer) units only valid with 6" or 8" stripes  
Note: Accuracy for LF items is per Linear Foot, Mile items to 1/1000th of a mile, and Square Foot items to the nearest square foot.  
*See details for guidance on class selection

<table>
<thead>
<tr>
<th>714- 1-ABC</th>
<th>MOTORIST AID CALL BOX</th>
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</thead>
<tbody>
<tr>
<td>Unit AS</td>
<td>Accuracy</td>
</tr>
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</table>

**Notes**
For A=3-7, BC=00, effective 7/08 letting

**Details**
New installations- estimate quantity on basis of 2 per mile (1 per 804 meters) in project length for rural areas.

NOTE: Per Index, concrete pad is paid under Class II concrete, Misc.

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**

**Forms**
- Design: SHTabQuant  
- Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards: Index No. 17600  
- Specifications

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

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

**Status**
Inactive Structure

**Struct.**
714- 1-ABC MOTORIST AID CALL BOX AS

Details and Structure: Items 100 to 1999
A = Operation
1 (Furnish & Install)
2 (Furnish)
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
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

Forms
- Required
  Design: SHTabQuant
  Construction: Refer to Comp Book

Documentation
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
- PPM Chapter
- Other
- Standards
- Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status: Inactive Structure

Struct. 714- 2- A MOTORIST AID CONSOLE EA

A = Form
1 (Coded Message, Radio)
2 (Coded Message, Wire)
3 (Voice, Radio)
4 (Voice, Wire)
### 714- 3- AB  MOTORIST AID COMPONENTS (F&I) CONSOLE

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<thead>
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<td></td>
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#### Notes

**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

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<td>COMP 700-050-03</td>
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#### References

- PPM Chapter
- Other
- Standards
- Specifications

**Plan Detail and/or Tech Spec Required**

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

| 7, 13 |

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

| 0200 Roadway |

**Status**

**Inactive Structure**

**Struct.**

<table>
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<tr>
<th>714- 3- AB  MOTORIST AID COMPONENTS (F&amp;I) CONSOLE</th>
<th>EA</th>
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</table>

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)

### 714- 4-ABB  MOTORIST AID MICROWAVE COMPONENT

<table>
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<tr>
<th>Unit</th>
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<td>Each</td>
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#### Notes

**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.
## Basis of Estimates

**2008 Edition**  
**May 28, 2008**

### Required vs. Recommended

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<td>Refer to Comp Book</td>
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<td>Plan Detail and/or Tech Spec Required</td>
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**TRNS*PORT Category (DRAFT FIELD):**  
0200 Roadway

**Status:** Inactive Structure

**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)
  - 09 (6' Grid Microwave Antenna)
  - 10 (8' Grid Microwave Antenna)
  - 11 (10' Grid 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)

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Details and Structure: Items 100 to 1999  
Page 330 of 451
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

**714- 5-ABB**  
MOTORIST AID MICROWAVE TOWER

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
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#### 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

<table>
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<th>Recommended</th>
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<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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#### Documentation

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

#### References

<table>
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<th>Other</th>
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<tr>
<td>Standards</td>
<td>Specifications</td>
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Plan Detail and/or Tech Spec Required  
Prep & Doc Manual Chapter(s) 6, 7, 13

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

**Status:** Inactive Structure  
**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')
Notes

714- 7- A MOTORIST AID TRANSMISSION LINES

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
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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

Design

SHTabQuant

Construction

Refer to Comp Book

Recommended

COMP 700-050-03

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction

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

References

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRANSPORT Category (DRAFT FIELD): 0200 Roadway

Status

Inactive Structure

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

Details and Structure: Items 100 to 1999
714- 8- A  MOTORIST AID MICROWAVE COMMUNICATION SHELTER

<table>
<thead>
<tr>
<th>Notes</th>
<th>Details</th>
<th>Related Items</th>
<th>Required</th>
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<td>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.</td>
<td>Forms</td>
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<td>SHTabQuant</td>
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<td>Refer to Comp Book</td>
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<td>Related Items</td>
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<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>7, 13</td>
</tr>
</tbody>
</table>

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

Status  Inactive Structure

Struct.  714- 8- A  MOTORIST AID MICROWAVE COMMUNICATION SHELTER

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

714- 9- A  MOTORIST AID TECHNICAL SUPPORT

<table>
<thead>
<tr>
<th>Notes</th>
<th>Details</th>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
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<td>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.</td>
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<td></td>
<td></td>
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</table>

Details and Structure: Items 100 to 1999
### 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**

---

### 714-73- RELAY STATION COMMUNICATION ASSEMBLY

**Unit** AS  
**Accuracy** Assembly  
**PlanQuantity?** no

**Related Items**

**Forms**
- **Design** SHTabQuant  
- **Construction** COMP 700-050-03

**Documentation**
- **Design** Refer to Comp Book  
- **Construction** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
- **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

---

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

**Status** Inactive Structure  
**Struct.** 714-73- RELAY STATION COMMUNICATION ASSEMBLY AS

---

Details and Structure: Items 100 to 1999
### 714- 74-
**CONTROL STATION COMMUNICATION ASSEMBLY**

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**Notes**

**Details**

**Related Items**

**Forms**

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<tr>
<td>Construction</td>
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</table>

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

**Related Items**

**Forms**

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**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

### 714- 75-ABB
**MOTORIST AID MICROWAVE**

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<tr>
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</thead>
</table>

**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**

**Forms**

<table>
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</table>

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards
Specifications

Plan Detail and/or Tech Spec Required

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

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status Inactive Structure

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, Impairment 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)
Notes

715- 1- AB LIGHTING- CONDUCTORS

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
<th>Accuracy</th>
<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

Notes

Effective for projects let January 2007; replaces 715-1-ABC and 2715-11A-BCC.

Details

Includes conductors as per the plans and standard indexes. Design quantity shall be based on the length of single conductor in horizontal measurement.

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

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
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<tbody>
<tr>
<td>Forms</td>
<td></td>
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<tr>
<td>Design</td>
<td>SBTBLT</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

Documentation

| Design      | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor. |
| Construction | Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances. |

References

PPM Chapter

Other

Standards

Index No. 17500, 17501, 17502

Specifications

*Selected Items may require Tech Spec and/or Plan Detail

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

TRNS*PORT Category (DRAFT FIELD): 0400 Lighting

Status

Struct. 715- 1- AB LIGHTING- CONDUCTORS 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= Size
1 (No. 10 or smaller)
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.

When Furnish item is used, plans or specs should detail location (maintenance yard or other) for delivery of product.

### Required Related Items

<table>
<thead>
<tr>
<th>Forms</th>
<th>Design</th>
<th>SBTBLT</th>
</tr>
</thead>
<tbody>
<tr>
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### Recommended Related Items

<table>
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<td>Design</td>
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<td>Construction</td>
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### Standards

Index No. 17721

### Specifications

PPM Chapter

### Other

Prep & Doc Manual Chapter(s) 7, 13

### TRNS*PORT Category (DRAFT FIELD)

0400 Lighting

### Status

**Struct.** 715- 2- AB

**LIGHTING CONDUIT**

A= Operation
1 (Furnish & Install)
2 (Furnish) B=0 plan detail or specification required
3 (Install)
B = Location
0
1 (Underground)
2 (Underpavement Sawcut) Note: Only when sawcutting is necessary for locations under EXISTING PAVEMENT

---

Notes and Structure: Items 100 to 1999
3 (Surface Mount)

Notes: See details above for furnish item

---

**715-4-ABC LIGHT POLE COMPLETE**

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
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</thead>
</table>

**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.

Use C=Custom only when the pole height is non-standard. 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**

<table>
<thead>
<tr>
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</table>

**Forms**

| Design  | SBTBLT | Construction | Refer to Comp Book |

**Documentation**

<table>
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<tr>
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**References**

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<tr>
<th>PPM Chapter</th>
<th>Structures Manual, Vol 9</th>
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</thead>
</table>

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

*Selected Items may require Tech Spec and/or Plan Detail*

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Status**

| 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
2 (Furnish)
3 (Install) BC=00
4 (Relocate) BC=00
6 (Remove) BC=00
B= Wind Speed (mph)
1 (150)
2 (130)
3 (110)

---

Details and Structure: Items 100 to 1999
C = Pole Height (feet)
1 (40)
2 (45)
3 (50)
9 (Custom height)

### Notes

<table>
<thead>
<tr>
<th>715- 5- AB</th>
<th>LUMINAIRE &amp; BRACKET ARM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit</strong></td>
<td><strong>EA</strong></td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td><strong>Each</strong></td>
</tr>
<tr>
<td><strong>PlanQuantity?</strong></td>
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</tr>
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</table>

#### Notes

Includes the bracket arm, luminaire with lamp and all necessary mounting hardware as per the plans and indexes.

### Related Items

<table>
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<tr>
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</tr>
<tr>
<td><strong>Construction</strong></td>
<td>Refer to Comp Book</td>
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### Documentation

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

### References

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<tr>
<td>Specifications</td>
</tr>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
</tr>
</tbody>
</table>

### TRNS*PORT Category (DRAFT FIELD): 0400 Lighting

### Status

| Struct. | 715- 5- AB | LUMINAIRE & BRACKET ARM | EA |

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Remove)

Code B = 0 If A = 3, 4, Or 5
B = Material Type
1 (Aluminum)
2 (Galvanized Steel)

### Notes

Includes all components listed in the Standards and all external and internal conduit and conductors for the service.

---

**Details and Structure:** Items 100 to 1999
### Required vs. Recommended

<table>
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### Documentation

| Design          | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction    | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

### References

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</table>

### Prep & Doc Manual Chapter(s)

7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

### Status

**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

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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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### Documentation

| Design          | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction    | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

### References

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</table>

### Prep & Doc Manual Chapter(s)

7, 13
**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Status**

**Struct.** 715-10- A LIGHT POLE FOUNDATION EA

A = Operation
1 (Open)
2 (Furnish & Install)
3 (Repair)
4 (Straighten Existing Foundation)
5 (Remove)
6 (Relocate)
7 (Furnish)
8 (Install)

**Notes**

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Status**

**Struct.** 715-11-ABC LUMINAIRE EA

**Notes**

**Details**
Includes the luminaire with lamp and necessary mounting hardware as per the plans and standard indexes.

**Related Items**

**Forms**
- **Required**
  - Design
  - Construction

**Documentation**
- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**
- **Other**

**Standards**
Index No. 17500, 17501, 17502, 17505

**Specifications**

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

### 715-14-AB LIGHTING- PULL BOX

<table>
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<th>Unit</th>
<th>EA</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>no</td>
</tr>
</tbody>
</table>

**Details**
Includes the pull box and cover as per plans and standard indexes.

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
<tbody>
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<td>Refer to Comp Book</td>
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**Documentation**

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**References**

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<td>Index No. 17500, 17503</td>
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<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>7, 13</td>
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</table>

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

| 0400 Lighting |

**Status**

<table>
<thead>
<tr>
<th>Struct.</th>
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<th>EA</th>
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<tbody>
<tr>
<td>A = Operation</td>
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<td></td>
</tr>
<tr>
<td>1 (Furnish &amp; Install)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (Furnish)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (Install)</td>
<td></td>
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<tr>
<td>4 (Relocate)</td>
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<td></td>
</tr>
<tr>
<td>5 (Remove)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 (Furnish &amp; Install Cover Only)</td>
<td></td>
<td></td>
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<tr>
<td>7 (Repair)</td>
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<td>B = Placement</td>
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<td>1 (Roadside) - Moulded</td>
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<td>2 (Sidewalk)</td>
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<td>3 (Embedded) - Bridge</td>
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<td>4 (Surface Mount)</td>
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**Notes**

Details and Structure: Items 100 to 1999
### 715-19-A LIGHTING- SURGE PROTECTOR

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<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
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**Notes**

**Details**

**Related Items**

**Forms**
- **Design**: Required
  - SBTBLT
- **Construction**: Required
  - Refer to Comp Book

**Documentation**
- **Design**: Required
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Required
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**: Design, Construction
- **Prep & Doc Manual Chapter(s)**: 7, 13

**TRNS*PORT Category (DRAFT FIELD)**: 0400 Lighting

**Status**

**Struct.**

**715-19-A LIGHTING- SURGE PROTECTOR**

A =
1. (Pole Base)
2. (Install Only)

---

### 715-19-ABC HIGH MAST LIGHT POLE, COMPLETE

<table>
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<tr>
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<th>Each</th>
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**Notes**

**Details**

**Related Items**

**Forms**
- **Design**: Required
  - SBTBLT
- **Construction**: Required
  - Refer to Comp Book

**Documentation**
- **Design**: Required
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**: Design, Construction
- **Prep & Doc Manual Chapter(s)**

**TRNS*PORT Category (DRAFT FIELD)**: 0400 Lighting

**Status**
Struct.  715-19-ABC  HIGH MAST LIGHT POLE, COMPLETE  EA

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install) BC=00
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)

Notes

715-20- A  LIGHTING- SCHEDULED CLEANING

Unit  LU  Accuracy  Luminaire  PlanQuantity?  no

Details

Related Items
Forms  Required  Recommended
Design  SBTBLT  COMP 700-050-03

Construction  Refer to Comp Book

Documentation  Design  Locate in plans. Summarize quantities by location on tabulation of
               quantities sheet in the plans, or detail calculations in the computation book.
               Construction  Record final quantity on the tabulation sheet (plans) or computation form
               (comp book).

References  PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)  7, 13

TRNS*PORT Category (DRAFT FIELD):  0400  Lighting

Status

Struct.  715-20- A  LIGHTING- SCHEDULED CLEANING  LU

A =
1 (Pole Mounted <50')
2 (Underdeck)
3 (Sign Luminaire)
4 (High Mast)

Notes

715-21-1  LUMINAIRE STARTER BOARD

Details and Structure: Items 100 to 1999
### LUMINAIRE STARTER BOARD

<table>
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<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th><strong>PlanQuantity?</strong></th>
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</table>

**Notes**
- Required: SBTBLT
- Recommended: COMP 700-050-03

**Details**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

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

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Struct.** 715-21-1

**LUMINAIRE STARTER BOARD EA**

---

### QUICK DISCONNECT PLUG

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<th>Accuracy</th>
<th>Each</th>
<th><strong>PlanQuantity?</strong></th>
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</thead>
</table>

**Notes**
- Required: SBTBLT
- Recommended: COMP 700-050-03

**Details**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- 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**

<table>
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<tr>
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<th>Accuracy</th>
<th>Each</th>
<th><strong>PlanQuantity?</strong></th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**
- Required: SBTBLT
- Recommended: COMP 700-050-03

**Details**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- 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 = 1 (Switch Boxing - For Sign Structure)
2 (Plug Pole Base - High Mast)

---

### 715-30- AA GROUP RELAMPING (LIGHTING)

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>Luminaire</th>
<th>PlanQuantity?</th>
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</table>

**Notes**

**Details**

**Related Items**

**Required**

**Recommended**

**Forms**

**Design**

SBTBLT

COMP 700-050-03

**Construction**

Refer to Comp Book

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

---

**TRNS**PORT Category (DRAFT FIELD): 0400 Lighting

**Status**

**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**

---

### 715-31- AA LIGHTING - ROUTINE MAINTENANCE

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>Location</th>
<th>PlanQuantity?</th>
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**Notes**

**Details**

**Related Items**

**Required**

**Recommended**

**Forms**

**Design**

SBTBLT

COMP 700-050-03

**Construction**

Refer to Comp Book

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of...

---

**Details and Structure: Items 100 to 1999**
quantities sheet in the plans, or detail calculations in the computation book.

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

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Status**

**Struct.** 715-31- AA  LIGHTING - ROUTINE MAINTENANCE  LO

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**

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Status**

**Struct.** 715-34- A  LIGHT POLE (MAINTENANCE USE ONLY)  EA

A =

---

**Details and Structure: Items 100 to 1999**
### Topic No. 600-000-002

**Basis of Estimates**

**2008 Edition**

May 28, 2008

---

**Notes**

1 (Furnish New Pole)
2 (Repair A Pole And Furnish For Reuse)

---

<table>
<thead>
<tr>
<th>715-35- A</th>
<th>MAST ARM</th>
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<tr>
<td><strong>Unit</strong></td>
<td>EA</td>
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<td><strong>Accuracy</strong></td>
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<td><strong>PlanQuantity?</strong></td>
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**Details**

**Related Items**

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</table>

**References**

PPM Chapter
Other
Specifications

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

7, 13

---

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

0400 Lighting

---

**Struct.**

715-35- A MAST ARM EA

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Repair)

---

### 715-36- AB LIGHT POLE FRANGIBLE BASE

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
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<tbody>
<tr>
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<td>Each</td>
</tr>
<tr>
<td><strong>PlanQuantity?</strong></td>
<td>no</td>
</tr>
</tbody>
</table>

**Details**

Includes the frangible base, attachments, bolts and washers as per the plans and standard indexes.

**Related Items**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Design</td>
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<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
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**Documentation**

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<tbody>
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</table>

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Details and Structure: Items 100 to 1999
Standards Index No. 17501
Specifications
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0400 Lighting

Status

Struct. 715-36-AB LIGHT POLE FRANGIBLE BASE EA
A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Leveling In-Place Pole)
B = Type
1 (Shoe Base)
2 (Transformer Base)
3 (Frangible Insert)
4 (Door Assembly)

Notes

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
Design SBTBLT
Construction Refer to Comp Book

Recommended
Design COMP 700-050-03
Construction Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Reference

PPM Chapter
Other
Standards Index No. 17504
Specifications
Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0400 Lighting

Status Inactive Structure

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

---

**715-4A-BCC ALUMINUM LIGHT POLE- COMPLETE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td>no</td>
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</tbody>
</table>

**Notes**
Valid through December 2007; replaced by 715-4-ABC.

**Details**
to be used in accordance with Index. Verify case number on standard.
For special designs, refer to pay item 715-5AB-CDD.

**Related Items**

<table>
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<tr>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Forms</td>
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**References**
PPM Chapter 17515

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Struct.** 715-4A-BCC ALUMINUM LIGHT POLE- COMPLETE EA

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

B= Structure Height
1 (Up to 25')
2 (26'-39')
3 (40'-49')
4 (50' and greater)

CC= Case Number defined on standards

---

---

**715-50- LIGHTING- INSIDE BOX GIRDER**

<table>
<thead>
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<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
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</table>

Details and Structure: Items 100 to 1999
Effective January 2007 letting. (Earlier implementation upon request)

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.

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

<table>
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### Documentation

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### References

- PPM Chapter
- Other

### Standards

- Specifications

### Plan Detail and/or Tech Spec Required

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

**TRNS@PORT Category (DRAFT FIELD):** 0400 Lighting

**Struct.** 715-50- LIGHTING- INSIDE BOX GIRDER LS/LS

### Notes

- This is a special item for non-standard, underdeck aesthetic lighting systems.

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

<table>
<thead>
<tr>
<th>Required</th>
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### Documentation

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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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</table>

### References

- PPM Chapter
- Other

### Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0400 Lighting

Status

Struct. 715-51- LIGHTING- TRANSFORMER FOR SPECIAL LIGHTING EA

Notes

715-52- LIGHTING- COMMUNICATION/CONTROL CABLE FOR SPECIAL LIGHTING SYSTEM

Unit LF; M1 Accuracy Linear Foot; 10th of a Meter PlanQuantity? no

Notes

Details This is a special item for non-standard, underdeck aesthetic lighting systems.

Related Items Required Recommended

Forms Design

Construction

Documentation Design

Construction

References PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status

Struct. 715-52- LIGHTING- COMMUNICATION/CONTROL CABLE FOR LF SPECIAL LIGHTING SYSTEM

Notes

715-19A-BBB HIGH MAST LIGHT POLE, COMPLETE

Unit EA Accuracy Each PlanQuantity? no

Notes Valid through December 2007; replaced by 715-19-ABC

Details Includes the pole, luminaire ring and lowering assembly, luminaires with lamps, anchor bolts with lock nuts and washers, and base plate assembly.

Related Items Required Recommended

Forms Design SBTBLT

Construction COMP 700-050-03

Refer to Comp Book

Documentation Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction Record final quantity on the tabulation sheet (plans) or computation form

Details and Structure: Items 100 to 1999
(comp book).

**References**

PPM Chapter

Other

Standards  Index No. 17500, 17501, 17503

Specifications

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

---

**TRNS**<sup>PORT</sup> Category (DRAFT FIELD):  0400  Lighting

**Status**

**Struct.**  715-19A-BBB  HIGH MAST LIGHT POLE, COMPLETE

A = Operation

1 (Furnish & Install)

2 (Furnish)

3 (Install)

4

5 (Remove)

6 (Rework)

BBB = Mounting Height (In Feet)

---

**Notes**

---

**715-500- A  LIGHT POLE CABLE DISTRIBUTION SYSTEM**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>Plan Quantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

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**

Design  SBTBLT

Construction  Refer to Comp Book

**Recommended**

Design  COMP 700-050-03

Construction  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

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

---

**TRNS**<sup>PORT</sup> Category (DRAFT FIELD):  0400  Lighting

**Status**

**Struct.**  715-500- A  LIGHT POLE CABLE DISTRIBUTION SYSTEM

A = Type

1 = (Conventional)

2 = (High Mast)

---

Details and Structure: Items 100 to 1999
3 = (Wall Mounted)

Notes

### LIGHT POLE COMPLETE, SPECIAL DESIGN

| Unit | EA | Accuracy | Each | PlanQuantity? | no |

#### Notes

**Details**
- Used for Specially Designed Poles, including decorative or non-standard aluminum.
- Requires shop drawings.
- Includes the pole, 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 715-4A-BCC (through 12/07) or 715-4-ABC (effective 1/2008)
- For Turnpike Projects, Top Mount light specs/details may be available.
- 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**
- Design: SBTBLT
- Construction: Refer to Comp Book

**Recommended**
- Design: COMP 700-050-03
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

#### References

- PPM Chapter: Index No. 17500, 17501, 17503
- Other: Plan Detail and/or Tech Spec Required

#### Prep & Doc Manual Chapter(s)
- 7, 13

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

### Status

**Struct.**  715-5AB-CDD  LIGHT POLE COMPLETE, SPECIAL DESIGN  EA

- A = Operation
  1 (Furnish & Install)
  2 (Furnish)
  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)
- B = No. Arms & Location
  1 (Single Arm Shoulder Mount)
  2 (Double Arm Shoulder Mount)
3 (Single Arm Wall Mount)  
4 (Double Arm 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**  
*Turnpike has adopted the Top Mount as a standard for some applications; specs/details may be available from District Design

<table>
<thead>
<tr>
<th>721- 70- AB</th>
<th>PASSENGER SHELTER- ALUMINUM, PREFABRICATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>EA</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Each</td>
</tr>
<tr>
<td>Plan Quantity?</td>
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**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**

Design  
SHTabQuant  
COMP 700-050-03

**Recommended**

Construction  
Refer to Comp Book

**Forms**

Design  
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**Documentation**

PPM Chapter  
Other

**Standards**

PPM Chapter  
Other

**Specifications**

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)  
7, 13

**TRNS*PORT Category (DRAFT FIELD):**  
0800 Architectural

**Status**

**Struct.**  
721- 70- AB  
PASSENGER SHELTER- ALUMINUM, PREFABRICATED  
EA

A =  
1 (Aluminum)

B =  
1 (Pre-Fabricated)

**Notes**
### TRASH RECEPTACLE

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

**Notes**

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.

**Details**

**Related Items**

<table>
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<th>Recommended</th>
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<tr>
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<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
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</table>

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

PPM Chapter

**Status**

**Struct.** 721-74- A  **TRASH RECEPTACLE**  **EA**

A = Type
1 (Pre-Fabricated)
2 (Precast)

---

### BENCHES

**Unit** EA  **Accuracy** Each  **PlanQuantity?** yes

**Notes**

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.

**Details**

**Related Items**

<table>
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<tr>
<th>Form</th>
<th>Required</th>
<th>Recommended</th>
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</thead>
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<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
</tbody>
</table>

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.
- **Construction** Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

---

**Details and Structure:** Items 100 to 1999
### 721-75- A BENCHES EA

- **A** = Type
  - 1 (Pre-Fabricated)
  - 2 (Precast)

### 721-77- BICYCLE PARKING RACK

<table>
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<tr>
<th>Unit</th>
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<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EA</td>
<td>Each</td>
<td>no</td>
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</tbody>
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**Notes**: 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**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Reference**
- PPM Chapter 7, 13

---

### 721-80- PEDESTRIAN PLAZA

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<tbody>
<tr>
<td>LS/LS</td>
<td>Lump Sum</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**: Details and Structure: Items 100 to 1999
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
Forms  Required  Recommended
Design  SHTabQuantLS  COMP 700-050-05
Construction  Refer to Comp Book

Documentation
Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

References
PPM Chapter  Other
Standards
Specifications  Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)  7, 13

Status
Struct.  PEDESTRIAN PLAZA

Notes
730-76-ABB  STEEL CASING, OPEN TRENCH

Unit  LF; M
Accuracy  Linear Foot; 10th of a Meter
Plan Quantity?  no

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
Forms  Required  Recommended
Design  SHTabQuant  COMP 700-050-03
Construction  Refer to Comp Book

Documentation  
Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

Construction  Record final quantity on the tabulation sheet (plans) or computation form (comp book).
References
PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)  6, 7, 13

TRNS*PORT Category (DRAFT FIELD):  0200  Roadway

Status

Struct.  730- 76-ABB  STEEL CASING, OPEN TRENCH  LF

A = Operation
1 (Furnish & Install)
4 (Remove)
5 (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 (72")
28 (78")
29 (84")
30 ( 72")
31 ( 90")
32 (108")
33 (")
34 (")

Notes

Details and Structure: Items 100 to 1999
### CASING SPACERS

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
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<th>no</th>
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**Notes**

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.

**Details**

Required Recommended

**Forms**

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</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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**Documentation**

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</tr>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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</table>

**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

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

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

**Struct.** 730-77- AA  CASING SPACERS  EA

AA = Carrier 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")

**Details and Structure:** Items 100 to 1999

Page 361 of 451
For roadway or landscaping applications. Designer should determine if permits are required by local and/or state agencies.

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
Design
SHTabQuant

Recommended
COMP 700-050-03

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 200 or 600  Roadway or Landscaping

Details and Structure: Items 100 to 1999
### WELL (IN EXCESS OF 250 FEET DEPTH)

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<tr>
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<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
</tr>
</tbody>
</table>

#### 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**: SHTabQuant
- **Recommended**: COMP 700-050-03

#### Documentation
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

#### References
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

#### Plan Detail and/or Tech Spec Required

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

### PUMPING SYSTEM

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<tr>
<td>EA</td>
<td>Each</td>
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#### 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**: SHTabQuant
- **Recommended**: COMP 700-050-03

#### Documentation
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
**Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References

**Specifications**

**Standards**

**PPM Chapter**

### Notes

**Plan Detail and/or Tech Spec Required**

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

---

**Struct.** 730-88-  
**PUMPING SYSTEM**  
**EA**

---

<table>
<thead>
<tr>
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<th>Accuracy</th>
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<th>PlanQuantity?</th>
<th>yes</th>
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</table>

**Notes**

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**

**Forms**

- **Design** SHTabQuantLS  
- **Construction** Refer to Comp Book

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

**Plan Detail and/or Tech Spec Required**

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

---

**Struct.** 735-74- AA  
**TOLL PLAZA**  
**LS/LS**

**Notes**

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**

**Forms**

- **Design** SHTabQuantLS  
- **Construction** Refer to Comp Book

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

**Plan Detail and/or Tech Spec Required**

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

---

**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

### servicing plaza- sewage and water modifications

<table>
<thead>
<tr>
<th>Unit</th>
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<th>Accuracy</th>
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<th>Related Items</th>
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<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuantLS</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
<td>Use a quantity of 1. No form required. Locate or define the scope of work involved on the plans.</td>
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<tr>
<td></td>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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<table>
<thead>
<tr>
<th>References</th>
<th>PPM Chapter</th>
<th>Other Standards</th>
<th>Specifications</th>
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<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>6, 7, 13</td>
<td></td>
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**TRNS*PORT Category (DRAFT FIELD):**
- **0800 Architectural**

**Status**
- Inactive Structure

**Struct.**
- 735- 79-
  - SERVICE PLAZA- SEWAGE AND WATER MODIFICATIONS

### servicing plaza renovation

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<tr>
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<td>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.</td>
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**Details and Structure: Items 100 to 1999**
735- 80- SERVICE PLAZA RENOVATION LS/LS

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

Forms

Required
Recommended
Design
SHTabQuantLS
COMP 700-050-05

Construction
Refer to Comp Book

Documentation

Design
Locate in plans. Summarize quantities by location on tabulation of
quantities sheet in the plans, or detail calculations in the computation book.
PLAN QUANTITY will be basis of payment to the Contractor.

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

References

PPM Chapter

Design
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

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

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

Forms

Required
Recommended
Design

Construction
Refer to Comp Book

Documentation

Design
Locate in plans. Summarize quantities by location on tabulation of
quantities sheet in the plans, or detail calculations in the computation book.
PLAN QUANTITY will be basis of payment to the Contractor.

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

References

PPM Chapter

Design
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)
**TRNS*PORT Category (DRAFT FIELD):**

**Status**

**Struct.  735- 81-** SERVICE/TOLL PLAZA- UNDERGROUND STRUCTURE  EA

**Notes**

**735- 82- A** TOLL PLAZA CANOPY

| Unit | SF; M2 | Accuracy | Square Foot; 10th of a 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**

**Forms**

Required

Design SHTabQuant COMP 700-050-01

Construction Refer to Comp Book

**Documentation**

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be basis of payment to the Contractor.

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

**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

**Status** Inactive Structure

**Struct.  735- 82- A** TOLL PLAZA CANOPY  SF

A =

1 (Concrete)

2 (Aluminum)

3 (Steel)

**Notes**

**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.

---

Details and Structure: Items 100 to 1999
**TRNS*PORT Category (DRAFT FIELD):**
- **0800** Architectural

**Status**
- Inactive Structure

**Struct.**
- 735-84- A TOLL PLAZA ISLAND EA

**Notes**
- A =
  - 1 (New)
  - 2 (Modify)
  - 3 (Remove)
  - 4 (New With Stairwell)

---

**735-86- A DETECTORS VEHICLE- TREADLE FRAME**

<table>
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<tr>
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<th>EA</th>
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<th>Each</th>
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<th>no</th>
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**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**

<table>
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<th>Recommended</th>
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</thead>
</table>

**Forms**
- **Design** SHTabQuant COMP 700-050-03
- **Construction** Refer to Comp Book

**Documentation**
- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other Standards Specifications

---

**Prep & Doc Manual Chapter(s)**
- 7, 13
Struct.  735- 86-  A DETECTORS VEHICLE- TREADLE FRAME EA

A =
1 (Existing Concrete Pavement)
2 (New Concrete Pavement)

Notes

---

735- 87-  A UTILITY TUNNEL

<table>
<thead>
<tr>
<th>Unit</th>
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<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
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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

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<td>SHTabQuant</td>
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<tr>
<td>COMP 700-050-03</td>
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Construction

Refer to Comp Book

Documentation

Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

---

Inactive Structure

Struct.  735- 87-  A UTILITY TUNNEL LF

A =
1 (7' X 7')
2 (6' X 8')
3 (7' X 8')

Notes

---

735- 88- TOLL PLAZA MODIFY EXISTING

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS/LS</td>
<td>Lump Sum</td>
<td>yes</td>
</tr>
</tbody>
</table>

Notes

Details

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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuantLS</td>
<td>COMP 700-050-05</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
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<table>
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<tr>
<th>Documentation</th>
<th>Design</th>
<th>Use a quantity of 1. No form required. Locate or define the scope of work involved on the plans.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
<td></td>
</tr>
</tbody>
</table>

### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

**Plan Detail and/or Tech Spec Required**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

**Status**

**Struct.** 735-88- TOLL PLAZA MODIFY EXISTING LS/LS

---

**735-89- AUTOMATIC WINDSHIELD WASHER**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**

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

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Documentation</th>
<th>Design</th>
<th>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
<td></td>
</tr>
</tbody>
</table>

### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

**Plan Detail and/or Tech Spec Required**

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

---
### Structure 735-89

**Automatic Windshield Washer EA**

#### Notes

**Status**

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

**Struct.** 735-89

**Notes**

**736-72- AA**

**Utility Relocation - Water**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS/LS</td>
<td>Lump Sum</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Notes**

**Details**

**Related Items**

**Forms**

**Design**

- SHTabQuantLS
- COMP 700-050-05

**Construction**

- Refer to Comp Book

**Documentation**

**Design**

- Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. PLAN QUANTITY will be the basis of payment to the Contractor.

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

**References**

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s) 7, 13

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

**Struct.** 736-72- AA

**Utility Relocation - Water**

**Notes**

**Details**

**Related Items**

**Forms**

**Design**

- SHTabQuantLS
- COMP 700-050-05

**Notes**

**Details**

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**

**Forms**

**Design**

- SHTabQuantLS
- COMP 700-050-05

**Notes**

**Details**

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**

**Forms**

**Design**

- SHTabQuantLS
- COMP 700-050-05

**Notes**

**Details**

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**

**Forms**

**Design**

- SHTabQuantLS
- COMP 700-050-05

**Notes**

**Details**

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.
**Construction**
Refer to Comp Book

**Design**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**
- **PPM Chapter**
- **Other**
  - **Standards**
  - **Specifications**

**Plan Detail and/or Tech Spec Required**

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

---

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

**Status**

**Struct.** 736-73-1 RAILROAD TRACK WORK LS/LS

---

**736-74- A RAILROAD TURNOUT AND CROSSOVER**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**
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**
- **Design**: SHTabQuant
- **Construction**: Refer to Comp Book

**Recommended**
- **Design**: COMP 700-050-03

**Forms**

**Documentation**

**Design**
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**
- **PPM Chapter**
- **Other**
  - **Standards**
  - **Specifications**

**Plan Detail and/or Tech Spec Required**

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

---

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

**Status**

**Struct.** 736-74- A RAILROAD TURNOUT AND CROSSOVER EA

A = 1 (No. 10)

---

Details and Structure: Items 100 to 1999
### 736- 75- RAILROAD CROSSING SIGNAL (CLASS II, TYPE 1)

| 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**

- Design: SHTabQuant
- Construction: Refer to Comp Book

**Recommended**

- Design: COMP 700-050-03
- Construction: COMP 700-050-03

**Forms**

- Design: SHTabQuant
- Construction: Refer to Comp Book

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**Related Items**

**Forms**

- Design: SHTabQuant
- Construction: Refer to Comp Book

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other

**Standards**

**Specifications**

Plan Detail and/or Tech Spec Required

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

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

**Struct.** 736- 75- RAILROAD CROSSING SIGNAL (CLASS II, TYPE 1) EA

**Notes**

- 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.

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**

- Design: SHTabQuant
- Construction: Refer to Comp Book

**Recommended**

- Design: COMP 700-050-03
- Construction: COMP 700-050-03

**Forms**

- Design: SHTabQuant
- Construction: Refer to Comp Book

**Documentation**

- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).
### 737-70- A UTILITY LOCATE

**A =**

1. Underground
2. Under Pavement
3. Electronic - Horizontal
4. Underwater

**Notes**

Plan Detail and/or Tech Spec Required

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

---

### 737-71- A ELECTRONIC UTILITY DESIGNATE

**Unit** LF; M1  
**Accuracy** Linear Foot; 10th of a Meter  
**PlanQuantity?** no

**Notes**

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**

**Forms**

- **Design**: SHTabQuant  
- **Construction**: Refer to Comp Book

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

Plan Detail and/or Tech Spec Required

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

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

---

**Details**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).
### STRUCT. 737-71- A

#### ELECTRONIC UTILITY DESIGNATE

<table>
<thead>
<tr>
<th>A</th>
<th>1 (Underground)</th>
<th>2 (Under Pavement)</th>
<th>3 (Electronic - Horizontal)</th>
<th>4 (Underwater)</th>
</tr>
</thead>
</table>

### Notes

#### 740-71-ABC WALL

| Unit | LF; M1 | Accuracy | Linear Foot; 10th of a Meter | PlanQuantity? | no |

### Notes

#### Details

**Related Items**

- **Forms**
  - **Required Design**
    - SHTabQuant
  - **Recommended Construction**
    - COMP 700-050-03

- **Construction**
  - Refer to Comp Book

**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

- 7, 13

---

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

### Status

#### STRUCT. 740-71-ABC WALL

<table>
<thead>
<tr>
<th>A</th>
<th>Operation</th>
<th>1 (Furnish &amp; Install)</th>
<th>2 (Furnish)</th>
<th>3 (Install)</th>
<th>4 (Removal)</th>
<th>5 (Rehab) LS, BC=00</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Material</th>
<th>1 (Drywall)</th>
<th>2 (Panel Wall)</th>
<th>3 (Block Wall)</th>
<th>4 (Other)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>Height</th>
<th>1 (8')</th>
<th>2 (10')</th>
<th>3 (12')</th>
<th>4 (Other)</th>
</tr>
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</table>

### Notes
### 741-70-ABC TRAFFIC MONITORING SITE, VEHICLE SENSOR-CLASS II

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

- Refer to Specifications for use and application.

**Details**

- Required
- Recommended

**Related Items**

- Design: SHTabQuant
- Construction: COMP 700-050-03

**Forms**

- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s) 7, 13

**Status**

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

**Struct.**

- 741-70-ABC TRAFFIC MONITORING SITE, VEHICLE SENSOR-CLASS II

- 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**

### 742-70-AB TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS ASSEMBLY

<table>
<thead>
<tr>
<th>Unit</th>
<th>AS</th>
<th>Accuracy</th>
<th>Assembly</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

- 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.

**Details**

- Required
- Recommended

**Related Items**

- Design: SHTabQuant
- Construction: COMP 700-050-03

**Forms**

- Design: SHTabQuant

**References**

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s) 7, 13

**Status**

- TRNS*PORT Category (DRAFT FIELD): 0200 Roadway
**Topic No. 600-000-002**

**Basis of Estimates**

**2008 Edition**

**May 28, 2008**

**Standards**

**Specifications**

**Struct. 742-70-AB TRAFFIC MONITORING SITE, WEIGH-IN-MOTION ELECTRONICS ASSEMBLY**

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**

**Plan Detail and/or Tech Spec Required**

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

---

**743-70-AB TRAFFIC MONITORING SITE, VEHICLE SPEED/CLASSIFICATION UNIT**

**Unit** AS **Accuracy** Assembly **Plan?** no

**Notes**

**Details**

Refer to Specifications for use and application.

**Related Items**

**Forms**

Required: SHTabQuant
Recommended: COMP 700-050-03

**Documentation**

Design Refer to Comp Book

Construction Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**References**

PPM Chapter
Other

**Prep & Doc Manual Chapter(s)** 7, 13
Struct.  743- 70- AB TRAFFIC MONITORING SITE, VEHICLE SPEED/CLASSIFICATION UNIT

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

744- 70- AB TRAFFIC MONITORING SITE, SOLAR POWER UNIT

<table>
<thead>
<tr>
<th>Unit</th>
<th>AS</th>
<th>Accuracy</th>
<th>Assembly</th>
<th>PlanQuantity?</th>
</tr>
</thead>
</table>

Notes

Details
Refer to Specifications for use and application.

Related Items

Required

Recommended

Forms

Design: SHTabQuant

Construction: Refer to Comp Book

Documentation

Design
Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter
Other
Standards
Specifications

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

Struct.  744- 70- AB TRAFFIC MONITORING SITE, SOLAR POWER UNIT

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
B = Mounting
1 (New Pole)
2 (Existing Pole)

Notes

745- 70- AB TRAFFIC MONITORING SITE, INDUCTIVE LOOP ASSEMBLY

Details and Structure: Items 100 to 1999
### TRAFFIC MONITORING SITE, INDUCTIVE LOOP

**Unit**: AS  
**Accuracy**: Assembly  
**PlanQuantity?**: no  

**Notes**
Refer to Specifications for use and application.

**Related Items**
- **Required**
  - Forms
    - Design: SHTabQuant  
    - Construction: Refer to Comp Book
  - Documentation
    - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
    - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter  
- Standards
- Specifications

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

---

### TRAFFIC MONITORING SITE, CABINET

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

**Notes**
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**
  - Forms
    - Design: SHTabQuant  
    - Construction: Refer to Comp Book
  - Documentation
    - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
    - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).
### TRAFFIC MONITORING SITE, CABINET

**Struct.** 746-7A-BCD

**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

---

### TRAFFIC MONITORING SITE, MODEM

**747-70-AB**

<table>
<thead>
<tr>
<th>Unit</th>
<th>AS</th>
<th>Accuracy</th>
<th>Assembly</th>
<th>PlanQuantity?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

**Notes**
Refer to Specifications for use and application.

**Details**

**Related Items**

**Forms**

**Required**
- Design: SHTabQuant

**Recommended**
- COMP 700-050-03

**Construction**
- Refer to Comp Book

**Documentation**

**Design**
- Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

PPM Chapter

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**

**Status**

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

**Struct.** 750-1-AB ARCHITECTURAL- BUILDING

**Unit** LS/SF; LS/M2 **Accuracy** Lump Sum (Square Foot); Lump Sum (Square Meter) **PlanQuantity?** no

**Notes**

Effective January 2007; replaces several Architectural Items.

**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**

**Forms**

**Required** SHTabQuantLS **Recommended** COMP 700-050-05

**Documentation**

**Design** Refer to Comp Book **Construction**

**References**

PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

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

**Details and Structure:** Items 100 to 1999
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

### 751-2- ARCHITECTURAL- ELECTRICAL/POWER

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**  
Effective January 2007

**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**

**Forms**

- **Design**: SHTabQuantLS  
- **Construction**: Refer to Comp Book

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.  
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

**Status**

**Struct.** 751-2- ARCHITECTURAL- ELECTRICAL/POWER LS/LS

**Notes**
### 751-3- ARCHITECTURAL - TELEPHONE/COMMUNICATION

<table>
<thead>
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<th>PlanQuantity?</th>
<th>no</th>
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</thead>
</table>

**Notes**

**Effective January 2007**

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**

<table>
<thead>
<tr>
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<th>Recommended</th>
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<tbody>
<tr>
<td>Design</td>
<td>SHTabQuantLS</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

**Status**

**Struct.** 751-3- ARCHITECTURAL - TELEPHONE/COMMUNICATION LS/LS

**Notes**

---

### 751-4- ARCHITECTURAL - WATER/SEWER INTERIOR

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</table>

**Notes**

**Effective January 2007**

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**

<table>
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<tr>
<th>Required</th>
<th>Recommended</th>
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</thead>
</table>
502-  4-  STRUCTURAL- WATER/SEWER INTERIOR LS/LS

Plan Detail and/or Tech Spec Required

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

502-  5-  STRUCTURAL- SANITARY SEWER/SEWAGE TREATMENT

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.

502-  6-  STRUCTURAL- WATER/SEWER INTERIOR LS/LS

502-  7-  STRUCTURAL- SANITARY SEWER/SEWAGE TREATMENT

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.
### 751-6- ARCHITECTURAL- HVAC

<table>
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</tr>
</thead>
</table>

**Notes**
- Effective January 2007
- 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

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<td>Construction</td>
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| Documentation | Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
|              | Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

#### References
- PPM Chapter
- Other
- Standards
- Specifications

Plan Detail and/or Tech Spec Required

---

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

### 751-10- ARCHITECTURAL- ASBESTOS ABATEMENT

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**Notes**
- Effective January 2007; contact Architectural Section before opening, due to possible CARS contract.
- Check for possible CARS contract prior to using this item.

**Details**
- For use on Architectural projects only. Not to be used with 750-1 (New/Rehab building)
Related Items

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<td>References</td>
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<td></td>
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Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0800 Architectural

Status

Struct. 751-10- ARCHITECTURAL- ASBESTOS ABATEMENT LS/LS

Notes

751-11- A ARCHITECTURAL- SPECIAL

<table>
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<tr>
<th>Notes</th>
<th>Contact State Structures Design Office and/or State Architectural Section prior to use in any contract</th>
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<tr>
<td>Details</td>
<td>For use on Structural/Architectural plans only.</td>
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<tr>
<td>This item is intended to cover Special Architectural elements not included with &quot;Buildings&quot;. Structural/Architectural details must be included in the plans or specifications.</td>
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Related Items

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<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
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</table>
**751- 11-  A ARCHITECTURAL- SPECIAL**

A= Description
1 (Walls/Towers) LS/LS

**751- 20-  A ARCHITECTURAL- LIGHTNING PROTECTION SYSTEM LS/LS**

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

**Effective January 2007**

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**

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<td>COMP 700-050-05</td>
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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

**Documentation**

| Design   | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

<table>
<thead>
<tr>
<th>PPM Chapter</th>
<th>Other</th>
</tr>
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</table>

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

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**TRNS*PORT Category (DRAFT FIELD):**  0800  Architectural

**Status**

**Struct.  751- 11-  A ARCHITECTURAL- SPECIAL**

A= Type of System
1 (Point Discharge)
2 (Static Charge Dissipation)
3 (Surge Suppression)
**ARCHITECTURAL- PICNIC PAVILION**

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

**Notes**  Effective January 2007

**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**

**Forms**  
**Required**  Design  SHTabQuant  **Recommended**  COMP 700-050-03

**Construction**  Refer to Comp Book

**Documentation**  
**Design**  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**  
**PPM Chapter**
**Other**
**Standards**  Index No. 530

**Specifications**  Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):**  0800  Architectural

**Struct.**  751- 30-  A  **ARCHITECTURAL- PICNIC PAVILION**  **EA**

**Notes**
A= Size, per index
1 (Small)
2 (Large)

---

**BOAT DOCK- FLOATING**

**Unit**  SF; M2  **Accuracy**  Square Foot; 10th of a 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**

**Forms**  
**Required**  Design  SHTabQuant  **Recommended**  COMP 700-050-01

**Construction**  Refer to Comp Book

**Documentation**  
**Design**  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

---

Details and Structure: Items 100 to 1999
quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

Plan Detail and/or Tech Spec Required

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

**Status**

**Struct.** 764- 1-

**BOAT DOCK- FLOATING**

**SF**

**Notes**

---

**764- 2-**

**BOAT DOCK- GANGWAY**

**Unit** SF; M2

**Accuracy** Square Foot; 10th of a Square Meter

**PlanQuantity?** no

**Notes**

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** SHTabQuant

**COMP 700-050-01**

**Construction** Refer to Comp Book

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

Plan Detail and/or Tech Spec Required

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

**Status**

**Struct.** 764- 2-

**BOAT DOCK- GANGWAY**

**SF**

**Notes**

---

**770- 75- A**

**PRE-PASS SENSOR**

Details and Structure: Items 100 to 1999
### Topic No. 600-000-002

### Basis of Estimates

#### 2008 Edition

May 28, 2008

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### Notes

<table>
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<tr>
<th>Unit</th>
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<th>Each</th>
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#### 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

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<tr>
<td>Construction</td>
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<td>Design</td>
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### References

#### Standards

PPM Chapter
Other
Specifications

Plan Detail and/or Tech Spec Required

#### Preparation & Documentation Manual Chapter(s)

**TRNS*PORT Category (DRAFT FIELD):** 0800 Architectural

### Status

**Struct.** 770- 75- A

PRE-PASS SENSOR EA

A= Location
1(Asphalt Embedded)

---

### Notes

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

<table>
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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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### 770- 78-

### STATIC/WEIGH-IN-MOTION SCALE SYSTEM

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<th>Each</th>
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#### Notes

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

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<td>Construction</td>
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Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0800 Architectural

Status Block Pending

Struct. 770-78- STATIC/WEIGH-IN-MOTION SCALE SYSTEM EA

Notes

770-79- WEIGH STATION

<table>
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<th>Unit</th>
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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

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Documentation

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<tbody>
<tr>
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<td>Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.</td>
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</table>

References

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0800 Architectural

Status Block Pending

Struct. 770-79- WEIGH STATION LS/LS

Notes

775-70- SCALE PIT STRUCTURES

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Details and Structure: Items 100 to 1999
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.

<table>
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- **References**
  - PPM Chapter
  - Other
  - Standards
  - Specifications

**Plan Detail and/or Tech Spec Required**

**PPM Chapter**

**Design**

**Construction**

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

---

**Details and Structure: Items 100 to 1999**
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

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References

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<th>PPM Chapter</th>
<th>Vol 1, Chapter 7</th>
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<tbody>
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<td>Other Standards Specifications</td>
<td></td>
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Notes

Note: Mile (kilometer) units only valid with 6" or 8" stripes

Note: Accuracy for LF items is per Linear Foot, Mile items to 1/1000th of a mile, and Square Foot items to the nearest square foot.

---

781- 2- AB  ITS HIGHWAY ADVISORY RADIO

Details and Structure: Items 100 to 1999
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.

**Notes**

<table>
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<th>Each</th>
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</table>

**Related Items**

**Forms**
- **Required**
  - Design
    - SHTabQuant
  - Construction
    - Refer to Comp Book

**Documentation**
- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**
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**References**
- PPM Chapter Vol 1, Chapter 7
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s)

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

**Status**

**Struct.** 781-2-AB

ITS HIGHWAY ADVISORY RADIO

A= Operation
- 1 (Furnish & Install)
- 2 (Furnish)
- 3 (Install)
- 4 (Relocate)
- 5 (Adjust /Modify)

B= Power Type
- 1 (Solar)
- 2 (AC)

**Notes**

**781-3-ABC ITS ROAD WEATHER INFORMATION SYSTEM**

**Notes**

Effective July 07 Letting.

**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

<table>
<thead>
<tr>
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</table>

### References

#### TRNSPORT Category (DRAFT FIELD):

**0550** ITS

### Status

**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

- **781-1A-BCD** **ITS DYNAMIC MESSAGE SIGN**

<table>
<thead>
<tr>
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<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
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<tbody>
<tr>
<td></td>
<td>EA</td>
<td></td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

#### Notes

- **Details**: For installation along interstate, expressway, or limited access corridors for communicating traffic advisories to motorists.
- **Structure Types**: Mid-span- across one direction of travel, full span- across all lanes, or 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**

**Forms**
- **Required**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

**Documentation**
- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter Vol 1, Chapter 7
- Other Standards
- Specifications

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

---

**TRNSPORT Category (DRAFT FIELD):** 0550 ITS

**Status**

**Struct.** 781- 1A-BCD

**ITS DYNAMIC MESSAGE SIGN**

EA

- A= Operation
  - 1 (Furnish & Install)
  - 2 (Furnish) *
  - 3 (Install) *Sign on existing structure
  - 4 (Relocate) *Sign to another existing structure
  - 5 (Adjust /Modify)
  - 9 (Furnish & Install structure; Install Sign)
- B=Sign Type
  - 1 (LED Line Matrix)
  - 2 (LED Full Matrix)
- C=Sign Support Structure
  - 1 (Mid-span)
  - 2 (Full Span)
  - 3 (Cantilever) D=1, 2, or 3 only
  - 4 (Sign Only) no structure; D=0
- D= Horizontal Structure Length
  - 0 (No Structure) when C=4
  - 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

---

**782- 1- AB**

**ITS CCTV CAMERA**

<table>
<thead>
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</table>

**Notes**

- 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

---

**Details and Structure:** Items 100 to 1999

Page 396 of 451
enclosures, or "barrel type" units with external positioners. Either unit can be pressurized to reduce the effects of moisture, dust, and other contaminants.

<table>
<thead>
<tr>
<th>Related Items</th>
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<tr>
<td>Standards</td>
<td>Specifications</td>
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</table>

Prep & Doc Manual Chapter(s)

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

**Status**

**Struct.** 782- 1- AB ITS CCTV CAMERA EA

A= Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

B= Type
1 (Dome enclosure, pressurized)
2 (External positioner, pressurized)
3 (Dome enclosure, non-pressurized)
4 (External positioner, non-pressurized)

**Notes**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. Record final quantity on the tabulation sheet (plans) or computation form (comp book).

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**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.

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**Notes**

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.
ITS VIDEO DISPLAY

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

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.

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)
**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

**Status**

**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**

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

**Struct. 783-1-ABC ITS FIBER OPTIC CABLE**

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
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<tbody>
<tr>
<td>Accuracy</td>
<td>Linear Foot; 10th of a Meter</td>
</tr>
</tbody>
</table>

**PlanQuantity?** no

**Notes**

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**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Design</th>
<th>SHTabQuant</th>
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**References**

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<td>Other Standards Specifications</td>
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**Prep & Doc Manual Chapter(s)**
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.

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.

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Details
### 783-3-AB  ITS FIBER OPTIC CONNECTION HARDWARE

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
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<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
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#### Notes
- 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.

#### Details
- Required: 783-2
- Recommended: 783-2

#### Related Items
- **Forms**
  - Design: SHTabQuant
  - Construction: COMP 700-050-03

#### Documentation
- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

#### References
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**
- **Prep & Doc Manual Chapter(s)**

#### Status
- **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

  **Notes**
  *B=8: Tech Spec needed until specification section is updated. Coordinate the use of this item with ITS Office.

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### 783-4-1AB  ITS CONDUIT

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<th>Linear Foot; 10th of a Meter</th>
<th>PlanQuantity?</th>
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#### Notes
- New Item effective 7-1-08; replaces 783-4-AB

#### Details
- For fiber optic cable and ITS devices only.
- 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.

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required Standards</th>
<th>Recommended Standards</th>
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<tr>
<td>Forms Design</td>
<td>SHTabQuant</td>
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**References**
- PPM Chapter
- Other

**Standards**
- Specifications

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

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

**Status**

**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.

**783- 4- AB ITS CONDUIT**

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
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</table>

**Notes**
- For fiber optic cable and ITS devices only.
- 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:** Per specification, length of conduit includes Electronic Locate system (transmitter and receiver).
**Topic No. 600-000-002**  
Basis of Estimates

**May 28, 2008**

<table>
<thead>
<tr>
<th>Related Items</th>
<th>Required</th>
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<tr>
<td><strong>Forms</strong></td>
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<td>Construction</td>
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<td>Prep &amp; Doc Manual Chapter(s)</td>
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**TRNS**\*\PORT Category (DRAFT FIELD): 0550  
ITS

**Status**

**Struct.** 783- 4- AB  
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.

**783- 5- A**  
ITS PULL BOX FOR FIBER OPTIC

<table>
<thead>
<tr>
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<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

**Details**  
For use in fiber optic networks as an access point for moving cable into position during installation.

**Related Items**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
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<td>SHTabQuant</td>
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<td><strong>References</strong></td>
<td>PPM Chapter</td>
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<td>Standards</td>
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</tbody>
</table>
Specifications

Prep & Doc Manual Chapter(s)

---

TRNS*PORT Category (DRAFT FIELD): 0550 ITS

Status

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

---

TRNS*PORT Category (DRAFT FIELD): 0550 ITS

Struct. 783- 6- A ITS SPLICE BOX FOR FIBER OPTIC EA

Unit EA Accuracy Each Plan Quantity? no

Details

For use in fiber optic networks as a housing for the connection or termination of cable segments.

Related Items

Required Recommended

Forms

Design SHTabQuant COMP 700-050-03

Construction Refer to Comp Book

Documentation

Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

---

TRNS*PORT Category (DRAFT FIELD): 0550 ITS

Struct. 783- 7- A ITS PULL AND JUNCTION BOX

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)

Notes

---

Details and Structure: Items 100 to 1999
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<th>EA</th>
<th>Accuracy</th>
<th>Plan Quantity?</th>
<th>no</th>
</tr>
</thead>
</table>

### Notes
For use on ITS projects. Specs may refer to section 635 for 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.

*********

**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.

### Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
</table>

<table>
<thead>
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</table>

### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

**Plan Detail and/or Tech Spec Required**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

#### Status

**Struct.** 783- 7 - A  
**ITS PULL AND JUNCTION BOX**

A= Operation  
1 (Furnish & Install)  
2 (Furnish)  
3 (Install)  
4 (Relocate)  
5 (Adjust /Modify)  
7 (Remove and Stockpile)

---

### Notes

#### Notes

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.

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.
### Plan Detail and/or Tech Spec Required

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

**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**

**783- 9- AB  ITS LOCATE SYSTEM ELECTRONIC EQUIPMENT**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Details**

Effective July 08 letting

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 can 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.

**Related Items**

- **Forms**
  - Required: Design  
  - SHTabQuant  
  - Recommended: COMP 700-050-03

- **Documentation**
  - Design  
  - Construction  

- **References**
  - PPM Chapter  
  - Other  
  - Standards  
  - Specifications
### Prep & Doc Manual Chapter(s)

**TRNS*PORT Category (DRAFT FIELD):** 0550   ITS

### Status

**Struct.** 784- 1- A   
**ITS MANAGED FIELD ETHERNET SWITCH**   

#### 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**

<table>
<thead>
<tr>
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<tr>
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<td>Construction</td>
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</table>

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

---

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

**TRNS*PORT Category (DRAFT FIELD):** 0550   ITS

### Status

**Struct.** 784- 1- A   
**ITS MANAGED FIELD ETHERNET SWITCH**   

#### 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.

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</table>

**Documentation**

**Design**

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**Construction**

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**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)
### 784- 2- A  ITS DEVICE SERVER

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

**Notes**

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**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
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<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

**Documentation**

| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**

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

**TRNS*PORT Category (DRAFT FIELD):**  0550  ITS

**Status**

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

---

### 784- 3- AB  ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER

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

**Notes**

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.

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Standards</td>
</tr>
<tr>
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</table>

**TRNS^PORT Category (DRAFT FIELD):** 0550 ITS

**Struct.** 784-3 AB ITS DIGITAL VIDEO ENCODER WITH SOFTWARE DECODER

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove and Dispose) Contractor takes ownership

B = Component
1 (Hardened Encoder)

**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**

<table>
<thead>
<tr>
<th>Forms</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
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**References**

PPM Chapter
Other

**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.

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**References**

PPM Chapter
Other

Details and Structure: Items 100 to 1999
Standards
Specifications

Prep & Doc Manual Chapter(s)

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**TRNS*PORT Category (DRAFT FIELD):** 0550  ITS

**Status**

**Struct.** 784- 4- AB  ITS DIGITAL VIDEO DECODER  EA

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Relocate)
5 (Adjust /Modify)
6 (Remove and Dispose) Contractor takes ownership

B = Component*
1 (Hardware-based decoder)
2 (Software-based decoder)
*See details and/or specifications

**Notes**
Contact ITS Section prior to opening.

---

**784- 5- AB  ITS MANAGER ETHERNET HUB SWITCH**

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

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.

**Related Items**

**Forms**
- Required: Design
  - SHTabQuant
- Recommended: Construction
  - COMP 700-050-03

**Documentation**
- Design
  - Construction
  - Refer to Comp Book
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0550  ITS

**Status**

**Struct.** 784- 5- AB  ITS MANAGER 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

<table>
<thead>
<tr>
<th>784- 6- AB</th>
<th>ITS WIRELESS COMMUNICATION DEVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>EA</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Each</td>
</tr>
<tr>
<td>PlanQuantity?</td>
<td>no</td>
</tr>
</tbody>
</table>

Notes

Details

For use in transmitting and receiving data in ITS networks, especially between remotely located field devices and the mainline communications infrastructure that 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

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</tr>
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Documentation

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</thead>
</table>
| Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References

PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0550 ITS

Status

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) Contractor takes ownership

B= Type
1 (Ethernet Access Point)
2 (Ethernet Subscriber Unit)


<table>
<thead>
<tr>
<th>785- 1-AB</th>
<th>ITS POLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit</strong></td>
<td>EA</td>
</tr>
<tr>
<td><strong>PlanQuantity</strong>?</td>
<td>no</td>
</tr>
</tbody>
</table>

**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.

Retrofit: to be used where a pole is already provided, to include furnishing & installation of lowering device.

**Related Items**

**Required**

- **Forms**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

- **Documentation**
  - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- PPM Chapter
- Other
- Standards
- Specifications

---

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

**Status**

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<th>ITS POLE</th>
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<td>1 (Furnish &amp; Install)</td>
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<tr>
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<tr>
<td>3 (Install)</td>
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</tr>
<tr>
<td>4 (Relocate)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 (Adjust /Modify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 (Retrofit lowering device on existing pole)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**

- Effective July 2007 letting; replaces 785-2-AB

**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

<table>
<thead>
<tr>
<th>Forms</th>
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<tr>
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<td>COMP 700-050-03</td>
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<tr>
<td>Construction</td>
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### Documentation

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</table>

### References

**PPM Chapter**

**Other**

**Standards**

**Specifications**

*Selected Items may require Tech Spec and/or Plan Detail*

### Prep & Doc Manual Chapter(s)

---

**TRNS*PORT Category (DRAFT FIELD):** 0550 ITS

### Status

**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

---

### 785- 3-ABC ITS EQUIPMENT SHELTER

<table>
<thead>
<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>Each</th>
<th>Plan</th>
<th>Quantity?</th>
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<tr>
<td>EA</td>
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**Notes**

Effective July 2007 letting; replaces 785-3-AB

---

**Details and Structure:** Items 100 to 1999
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.

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<thead>
<tr>
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<tr>
<td></td>
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</table>

References

PPM Chapter
Other Standards
Specifications

*Selected Items may require Tech Spec and/or Plan Detail

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0550 ITS

Status

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

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.

<table>
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<td>Design</td>
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</tbody>
</table>

References

PPM Chapter

Other

Standards

Specifications

*Selected Items may require Tech Spec and/or Plan Detail

Prepare & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0550 ITS

Status

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

823-1A-BBB SUBBALLAST

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
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<tbody>
<tr>
<td>SF; M2</td>
<td>Square Foot; 10th of a Square Meter</td>
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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

Details and Structure: Items 100 to 1999
### Topic No. 600-000-002
#### Basis of Estimates

**Forms**
- **Design**: SHTabQuant
- **Construction**: Refer to Comp Book

**Documentation**
- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

**Plan Detail and/or Tech Spec Required**

**Status**

**Struct.** 823-1A-BBB

<table>
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<th>BBB = Operation</th>
<th>BBB = 075 (3 in.)</th>
<th>BBB = 100 (4 in.)</th>
<th>BBB = 125 (5 in.)</th>
<th>BBB = 150 (6 in.)</th>
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</thead>
</table>

**Notes**
- NOTE: Open in one inch increments only (Mass Transit Item)

---

### 825-1AB-CDE
#### TRACK, STANDARD

| Unit      | LF; M1          | Accuracy | Linear Foot; 10th of a Meter | PlanQuantity? | no |

**Notes**
- This item is to be used for railroad applications only.

**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 Forms**: Design: SHTabQuant
- **Recommended Forms**: Design: COMP 700-050-03
- **Required Construction**: Refer to Comp Book
- **Recommended Construction**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Recommended Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).
Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0900 Mass Transit

Status

Struct. 825-1AB-CDE TRACK, STANDARD LF

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 = Joint Type
1 (Continuous Welded Rail, CWR)
2 (Jointed Rail, JR)

D = Tie Type
1 (Timber)
2 (Concrete)
3 (Steel)

E = Rail Head Hardening
0 (Standard Rail Head)
1 (Hardened Rail Head)

Notes

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

Forms
Design SHTabQuant
Construction Refer to Comp Book

Documentation Design Locate in plans. Summarize quantities by location on tabulation of Related Items
quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

**PPM Chapter**

**Other**

**Standards**

**Specifications**

Plan Detail and/or Tech Spec Required

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0900 Mass Transit

**Status**

**Struct.** 825-2AB-CCC TRACK UNDERCUTTING LF

A = Joint Type
1 (Continuous Welded Rail, CWR)
2 (Jointed Rail, JR)

B = Tie Type
1 (Timber)
2 (Concrete)
3 (Steel)

CCC = 075 (3 in.)
100 (4 in.)
125 (5 in.)
150 (6 in.)

**Notes**
NOTE: Open in one inch increments only. (Mass Transit Item)

---

**825-3AB-CCC TRACK RAISING**

**Unit** LF; M1

**Accuracy** Linear Foot; 10th of a Meter

**PlanQuantity?** no

**Notes**
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**

**Design** SHTabQuant

**Construction** Refer to Comp Book

**Recommended**

**Forms**

**Design** COMP 700-050-03

**Documentation**

**Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

**PPM Chapter**

**Other**

**Standards**
## Specifications

**Plan Detail and/or Tech Spec Required**

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

---

**TRNS*PORT Category (DRAFT FIELD):**  0900  Mass Transit

### Status

**Struct.**  825-3AB-CCC  TRACK RAISING  LF

- **A** = Joint Type
  1. (Continuous Welded Rail, CWR)
  2. (Jointed Rail, JR)
- **B** = Tie Type
  1. (Timber)
  2. (Concrete)
  3. (Steel)
- **CCC** = 075 (3 in.)
  100 (4 in.)
  125 (5 in.)
  150 (6 in.)

### Notes

**NOTE:** Open in one inch increments only. (Mass Transit Item)

### 825-4AB- C  LINE & SURFACE

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<td>Linear Foot; 10th of a Meter</td>
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<td>This item is to be used for railroad applications only</td>
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**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.

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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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**Documentation**

- **Design**
  - Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

### References

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

**Plan Detail and/or Tech Spec Required**

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

---

**TRNS*PORT Category (DRAFT FIELD):**  0900  Mass Transit

### Status

**Struct.**  825-4AB- C  LINE & SURFACE  LF
A = 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)

B = Joint Type
1 (Continuous Welded Rail, CWR)
2 (Jointed Rail, JR)

C = Tie Type
1 (Timber)
2 (Concrete)
3 (Steel)

Notes

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.

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Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

TRNS*PORT Category (DRAFT FIELD): 0900 Mass Transit

Status

Struct. 825-5AB-CDE TURNOUT 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 = Turnout 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**

**825-6AB-CDE** Crossover  

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th><strong>PlanQuantity?</strong></th>
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<td></td>
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**Notes**

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.

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**References**

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<td>Standards</td>
<td>Specifications</td>
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**Plan Detail and/or Tech Spec Required**
### Basis of Estimates

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

**TRNS*PORT Category (DRAFT FIELD)**: 0900 Mass Transit

#### Status

<table>
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<tr>
<th>Struct.</th>
<th>825-6AB-CDE</th>
<th>CROSSOVER</th>
<th>EA</th>
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</thead>
</table>

- **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**: Right Hand
  1. 1 (Right Hand)
  2. 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

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

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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</table>

**Documentation**

Design

Locate in plans. Summarize quantities by location on tabulation of Related Items.
quantities sheet in the plans, or detail calculations in the computation book.

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

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):** 0900 Mass Transit

**Struct.** 827- 1-ABC **DERAIL** **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 = Type of Derail
1 (Manual)
2 (Electric)

**Notes**

- **Plan Quantity?** no

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**

- **Forms**
  - Design SHTabQuant
  - Construction Refer to Comp Book

- **Documentation**
  - Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction Record final quantity on the tabulation sheet (plans) or computation form

---

827- 2-ABC **BUMPING POST**

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

**Notes**

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**

- **Forms**
  - Design SHTabQuant
  - Construction Refer to Comp Book

- **Documentation**
  - Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction Record final quantity on the tabulation sheet (plans) or computation form

---

Details and Structure: Items 100 to 1999
(comp book).

References
PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required
Prep & Doc Manual Chapter(s)  6, 7, 13

| TRNS*PORT Category (DRAFT FIELD): | 0900 Mass Transit |

Notes

830-1AB-CDE GRADE CROSSING

<table>
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<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
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<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
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<td></td>
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</table>

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.

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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
</tbody>
</table>

Details and Structure: Items 100 to 1999
**Construction**

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

**References**

PPM Chapter

Other

Standards

Specifications

Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s) 7, 13

**TRNS*PORT Category (DRAFT FIELD):** 0900  Mass Transit

**Status**

**Struct.** 830-1AB-CDE  GRADE CROSSING  LF

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Modify)

B = Grade Crossing Type
1 (Concrete)
2 (Rubber)
3 (Timber)
4 (Asphalt)
5 (Timber and Asphalt)
6 (Stone)
7 (Special)
0 (Temporary)

C = 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)

D = Joint Type
1 (Continuous Welded Rail, CWR)
2 (Jointed Rail, JR)

E = Tie Type
1 (Timber)
2 (Concrete)
3 (Steel)

**Notes**

832- 1- A  WELDS, ELECTRIC FLASH-BUTT/HERMITE

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
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<th>Details</th>
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<tr>
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<td>Each</td>
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<td>This item is to be used for railroad applications only.</td>
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**Details and Structure:** Items 100 to 1999
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**

<table>
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<tr>
<td>Forms</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Documentation</td>
<td></td>
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<tr>
<td>Design</td>
<td>Refer to Comp Book</td>
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<tr>
<td>Construction</td>
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</tr>
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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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**References**

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<th>Specifications</th>
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<tr>
<td>PPM Chapter</td>
<td></td>
</tr>
<tr>
<td>Other</td>
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</tbody>
</table>

**Plan Detail and/or Tech Spec Required**

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

**TRNS*PORT Category (DRAFT FIELD):** 0900 Mass Transit

**Status**

**Struct. 832-1- A WELDS, ELECTRIC FLASH-BUTT/THERMITE EA**

A = 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)

**Notes**

**832-2- A THERMITE WELD**

<table>
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<tr>
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<th>Accuracy</th>
<th>Each</th>
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<tbody>
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</table>

**Notes**

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**

<table>
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<tr>
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</tr>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>COMP 700-050-03</td>
</tr>
<tr>
<td>Documentation</td>
<td></td>
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<tr>
<td>Design</td>
<td>Refer to Comp Book</td>
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<tr>
<td>Construction</td>
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<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
</tr>
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<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
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</tbody>
</table>
**Struct. 832-2-A THERMITE WELD EA**

A = 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)

**Notes**

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**

**Forms**

**Required**

Design  SHTabQuant

**Recommended**

Construction  COMP 700-050-03

**Documentation**

**Design**

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Construction**

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

**References**

PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

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

**TRNS*PORT Category (DRAFT FIELD):** 0900 Mass Transit

**Status**
Struct.  836-1AB-CDE  INSULATED JOINTS  EA

A = Operation
1 (Furnish & Install)
2 (Furnish)
3 (Install)
4 (Remove)
5 (Modify)

B = Insulated Joint Type
1 (Factory Prefab Bonded Plug)
2 (Field Bonded)
3 (Field Installed)

C = 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)

D = Joint Type
1 (Continuous Welded Rail, CWR)
2 (Jointed Rail, JR)

E = Tie Type
1 (Timber)
2 (Concrete)
3 (Steel)

Notes

901-337- 8  BONDED ASPHALT CONCRETE FRICTION COURSE

Unit  TN; MT  Accuracy  10th of a Ton; 10th of a Metric Ton  PlanQuantity?  no

Notes  Contact - Emmanuel Uwaibi  for use

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.

Required Recommended

Forms  Required  Recommended
Design  SHTabQuant  COMP 700-050-06

Documentation  Required  Recommended
Design  Refer to Comp Book
Construction  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

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

References  Required  Recommended
PPM Chapter  Other
Standards  Specifications

Plan Detail and/or Tech Spec Required
### 904-439- A SYNTHETIC SUBSURFACE DRAINAGE LAYER

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

**Notes**  
Monitor: Larry Jones, State Structures 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.

**Details**

- **Related Items**
  - **Required**
    - Design: SHTabQuant  
    - Construction: Refer to Comp Book
  - **Recommended**
    - COMP 700-050-01

- **Documentation**
  - Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
  - Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

- **References**
  - PPM Chapter
  - Other
  - Standards
  - Specifications

Plan Detail and/or Tech Spec Required

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

---

### 904-540- A HIGH TENSION CABLE BARRIER SYSTEM

**Unit**: LF; M1  
**Accuracy**: Linear Foot; 10th of a Meter  
**PlanQuantity?**: no

**Notes**

- This is a trial item; contact the Monitor prior to use. Refer to Design Bulletin 07-08 for additional details.

**Details**

- Monitor: Andy Keel

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.

### Related Items

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forms</strong></td>
<td><strong>Design</strong></td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td><strong>Refer to Comp Book</strong></td>
</tr>
</tbody>
</table>

| **Documentation** | **Design** | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| **Construction** | | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

| **References** | **PPM Chapter** |
| **Other** | |
| **Standards** | |
| **Specifications** | |

**Plan Detail and/or Tech Spec Required**

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

---

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

**Status**

**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

**Notes** *The Monitor will select which item(s) to use on a given project.*

---

**904-711-ABC** **THERMOPLASTIC, NO TRACK**

| **Unit** | **Mixed** | **Accuracy** | Refer to item structure and details | **PlanQuantity?** | no |

**Notes**

Monitor: Chester Henson
Developmental Item- initial end date set at 6-30-2005. May only be changed with monitor's approval.

**Details**

Monitor: Chester Henson.
Contact the monitor prior to using this item.

**Related Items**

| **Required** | **Recommended** |
| **Forms** | **Design**  | **SHTabQuant** | **COMP 700-050-03** |
| **Construction** | **Refer to Comp Book** | | |

| **Documentation** | **Design** | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| **Construction** | | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |
Standards
Specifications

TRNS*PORT Category (DRAFT FIELD):  0300  Signing and Pavement Markings

Struct.  904-711-ABC  THERMOPLASTIC, NO TRACK  Mixed

A = color
1 (white)
2 (yellow)

B = type
1 (solid), per NM or NK Note: C =1 or 2
2 (skip), per GM or GK Note: C =1 or 2
3 (solid), per LF or M1
4 (skip), per LF or M1
5 (guidelines), per LF or M1
6 (messages), EA Note: C = 0

C = width
0 (blank- used for B =6)
1 (6”)
2 (8”)
3 (10”)
4 (12”)
5 (16”)
6 (18”)
7 (24”)

Notes
Note: Mile (kilometer) units only valid with 6” or 8” stripes
Note: Accuracy for LF items is per Linear Foot, Mile items to 1/1000th of a mile, and Square Foot items to the nearest square foot.

905-324- A  REWORKED ASPHALT CONCRETE

Unit  SY; M2  Accuracy  Square Yard; Square Meter

Notes  Monitor: Manny Uwaibi
Details  Monitor: Manny Uwaibi, State Pavement Design Office.  Contact the monitor prior to using this item.

Required  Recommended
Related Items
Forms  Design  Construction
Documentation  Design  Construction
References  PPM Chapter

Details and Structure: Items 100 to 1999
**905-707-1** STRIPING & MARKING- ASPHALT RESISTANT

<table>
<thead>
<tr>
<th>Unit</th>
<th>LS/LS</th>
<th>Accuracy</th>
<th>Lump Sum</th>
<th>Plan Quantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**
This is a developmental Item; contact the monitor prior to use. Valid for projects let March 2005 through June 2006. Date may be extended only by Monitor.

**Details**
Monitor: Ananth Prasad

**Related Items**
- Required: SHTabQuantLS
- Recommended: COMP 700-050-05

**Forms**
- Design: Refer to Comp Book
- Construction: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.

**Documentation**
- Design: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

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

---

**906-102-1** AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

<table>
<thead>
<tr>
<th>Unit</th>
<th>ED</th>
<th>Accuracy</th>
<th>Each Day</th>
<th>Plan Quantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**
This is a developmental item; designers must get approval from the monitor prior to use.

**Details**
Monitor: Cheryl Adams
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.
AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) ED

Developmental Specification required.

Forms
Design: SHTabQuant
Construction: Refer to Comp Book

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

References
PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway

Status
Struct. 906-102-1

Notes

906-173- A POLYURETHANE INJECTION AT BOX CULVERT

Unit LB; KG
Accuracy Pound; Kilogram
PlanQuantity? no

Notes
This is a trial item; contact the Monitor prior to use

Details
to be used only with approval of State Structures Design Office
to be used for specialty geotechnical work.

Related Items
Required
Forms
Design CADD Form not specified;
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD):

Status
Struct. 906-173- A

Notes

Related Items
Required
Forms
Design CADD Form not specified;
Construction Refer to Comp Book

Documentation
Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References
PPM Chapter
Other
Standards
Specifications

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD):

Status
Struct. 906-173- A

Notes
906-334-1  FUEL RESISTANT SUPERPAVE ASPHALT CONCRETE

| Unit     | TN; MT | Accuracy | 10th of a Ton; 10th of a Metric Ton | PlanQuantity? | no |

**Notes**
This is a trial item; contact the Monitor prior to use.

**Details**
Monitor: Greg Sholar.
to be used only with approval of Asphalt Materials and/or Pavement Office. Intended for Agricultural Inspection and Weigh stations

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**
<table>
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<tr>
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<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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**Documentation**
| Design | Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book. |
| Construction | Record final quantity on the tabulation sheet (plans) or computation form (comp book). |

**References**
PPM Chapter

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

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

**Struct.** 906-334-1 FUEL RESISTANT SUPERPAVE ASPHALT CONCRETE TN

---

906-340-1 OPEN GRADED CRACK RELIEF LAYER

| Unit     | TN; MT | Accuracy | 10th of a Ton; 10th of a Metric Ton | PlanQuantity? | no |

**Notes**
This is a developmental item; contact the Monitor prior to use.

**Details**
Contact the State Materials Office for assistance with this office. Developmental Specification required.
Used as a first layer over existing cracked pavement. Use only with concurrence from District Materials Engineer. Estimate Quantities based on a thickness of 1 inch, with equivalent spread rate of 107 lb/sy.

**Related Items**
<table>
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<tr>
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<tbody>
<tr>
<td>Design</td>
<td>SHTabQuant</td>
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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
</tr>
</tbody>
</table>

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

---

Details and Structure: Items 100 to 1999  Page 434 of 451
906-455- 1  COMPOSITE SHEET PILING

| Unit  | SF; M2 | Accuracy | Square Foot; 10th of a Square Meter | PlanQuantity? | yes |

**Notes**
- This is a trial item; contact the Monitor prior to use
  - Monitor: Larry Jones

**Details**
- Low height sheet pile for shoreline protection. Polyurethane resin/glass fiber matrix pultruded material. Experimental use only.

**Related Items**

<table>
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<th>Recommended</th>
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<tbody>
<tr>
<td>Design</td>
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<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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**Documentation**
- Design: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- Construction: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

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

---

906-546- 1  TEMPORARY RAISED RUMBLE STRIPS

**Notes**
- This is a trial item; contact the Monitor prior to use
  - Monitor: Cheryl Adams

**Details**
- 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.
Required Recommended
Forms Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book
Documentation Design Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction Final pay quantity will be PLAN QUANTITY with proper consideration for Specification tolerances.

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)

Related Items
Forms Required Recommended
Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

Notes
This is a trial item; contact the Monitor prior to use
Monitor: Karen Byram

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
Forms Required Recommended
Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0200 Roadway
Status
Struct. 906-546-1 TEMPORARY RAISED RUMBLE STRIPS PS

906-560-1 PAINTING STRUCTURAL STEEL- CABLES
Unit LF; M1 Accuracy Linear Foot; 10th of a Meter PlanQuantity? yes
Notes
Details
This is a trial item; contact the Monitor prior to use
Monitor: Karen Byram

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
Forms Required Recommended
Design SHTabQuant COMP 700-050-03
Construction Refer to Comp Book

References
PPM Chapter
Other
Standards
Specifications
Prep & Doc Manual Chapter(s)

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

Details and Structure: Items 100 to 1999
Struct.  906-560-1  PAINTING STRUCTURAL STEEL- CABLES  LF

Notes

906-609- AA  TRAFFIC SIGNAL SYSTEM

<table>
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<th>Unit</th>
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<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>Notes</th>
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</thead>
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<tr>
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<td>Per Intersection</td>
<td>no</td>
<td>This is a trial item; contact the Monitor prior to use</td>
</tr>
</tbody>
</table>

Details

Monitor: Chester Henson
This is a developmental item; contact the monitor prior to use.
Intended for the payment of traffic signal systems, per intersection. Refer to the specifications for detailed list of items included/excluded for payment under this item.

Related Items

Required  906-609-100  Recommended

Forms

Design  SHTabQuant  COMP 700-050-03

Documentation

Design  Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
Construction  Record final quantity on the tabulation sheet (plans) or computation form (comp book).

References

PPM Chapter
Other
Standards
Specifications
Plan Detail and/or Tech Spec Required

Prep & Doc Manual Chapter(s)

TRNS*PORT Category (DRAFT FIELD): 0500 Signalization

Struct.  906-609- AA  TRAFFIC SIGNAL SYSTEM  PI

AA= Intersection Number
1 (Intersection 1)
2 (Intersection 2)
## as needed for additional intersections on a proposal

Notes

906-609-100  INTERCONNECT CABLE ASSEMBLY- TRAFFIC SIGNAL SYSTEM

<table>
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<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
<th>Notes</th>
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<tbody>
<tr>
<td>LF; M1</td>
<td>Linear Foot; 10th of a Meter</td>
<td>no</td>
<td>This is a trial item; contact the Monitor prior to use</td>
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Details

Monitor: Chester Henson
This is a developmental item; contact the monitor prior to use.
For use only with Traffic Signal System, per intersection. Includes cable, conduit, pull boxes, and other signals materials/items between intersections which are not included under per intersection item. Refer to the specifications for additional information.

Related Items

Required  906-609- AA  Recommended

Forms

Design  SHTabQuant  COMP 700-050-03

Details and Structure: Items 100 to 1999
### 906-633-1 FIBER OPTIC AERIAL SPLICE ENCLOSURE

<table>
<thead>
<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>Plan Quantity?</th>
<th>no</th>
</tr>
</thead>
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**Notes**

New item for one-time use in district 5. Future use requires approval of Design and 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**
  - Design: SHTabQuant
  - Construction: Refer to Comp Book

- **Recommended**
  - Design: COMP 700-050-03

**Documentation**

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

**References**

- PPM Chapter
- Other
- Standards
- Specifications

Plan Details and/or Tech Spec required

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

**TRNS*PORT Category (DRAFT FIELD):** 0500 Signalization

**Status**

**Struct.** 906-633-1 FIBER OPTIC AERIAL SPLICE ENCLOSURE EA
Notes

### 906-701- AA AUDIBLE STRIPE

<table>
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<th>Unit</th>
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</table>

**Notes**
- Valid through 8-31-08; replaced by new 701 items. Refer to April 2008 Estimates/Roadway Bulletin.
- This is a Developmental item; contact the Monitor prior to use.

**Details**
- Monitor: Chester Henson
- This is a developmental item; contact the monitor prior to use.

**Related Items**
- Required: SBTBSP
- Recommended: COMP 700-050-03

**Forms**
- Design: SBTBSP
- Construction: Refer to Comp Book

**Documentation**
- Design: Construction
  - Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**
- PPM Chapter
- Other
- Standards
- Specifications

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

---

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

- 0300 Signing and Pavement Markings

**Status**

| Struct. | 906-701- AA AUDIBLE STRIPE | Mixed |

Verify structure with Monitor prior to opening items

**Notes**
- AA=
  - 32 (Yellow, Skip, 6") GM
  - 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
- others, per specification.

- Note: Mile (kilometer) units only valid with 6" or 8" stripes
- Note: Accuracy for LF items is per Linear Foot, Mile items to 1/1000th of a mile, and Square Foot items to the nearest square foot.

---

### 906-702- AA INVERTED PROFILE MARKINGS

<table>
<thead>
<tr>
<th>Unit</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Mixed</td>
<td>Refer to item structure and details</td>
<td></td>
</tr>
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</table>

**Notes**

**Details**
- Contact Chester Henson for information.
- Pay Item structure updated with 9-8-06 developmental specification

**Related Items**
- Required: SBTBSP
- Recommended: COMP 700-050-03

**Forms**
- Design: SBTBSP

---

Details and Structure: Items 100 to 1999
Verify structure with Monitor prior to opening items

AA=
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)

others, per specification.

Note: Mile (kilometer) units only valid with 6" or 8" stripes
Note: Accuracy for LF items is per Linear Foot, Mile items to 1/1000th of a mile, and Square Foot items to the nearest square foot.
**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

**Status**

**Struct.** 907-455- A CONCRETE CYLINDER PILE LF

A= Diameter
1 (27.6")
2 (31.5")
3 (34.5")
4 (39.4")

**Notes** DO NOT OPEN WITHOUT APPROVAL OF THE MONITOR

---

### 907-715-AAA LIGHTING- HURRICANE REPAIRS

<table>
<thead>
<tr>
<th>Unit</th>
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</tr>
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<tbody>
<tr>
<td>Notes</td>
<td>Valid for specific projects only</td>
<td></td>
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<tr>
<td>Details</td>
<td>Valid for D-4 projects with dedicated &quot;Hurricane Repair&quot; funds. Approvals needed for any other use.</td>
<td></td>
</tr>
<tr>
<td>Related Items</td>
<td>Required</td>
<td></td>
</tr>
<tr>
<td>Forms</td>
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<td>Design</td>
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<td>Standards</td>
<td>Other</td>
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<td>Specifications</td>
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<td></td>
</tr>
<tr>
<td>Prep &amp; Doc Manual Chapter(s)</td>
<td></td>
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</tbody>
</table>

---

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

**Status**

**Struct.** 907-715-AAA LIGHTING- HURRICANE REPAIRS

AA Structure as requested

**Notes**

---

### 908-102- 1 MICROSURFACING FOR MOT

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Notes</td>
<td>MONITOR: Manny Uwaibi, State Pavement Design Office Developmental Item</td>
<td></td>
</tr>
<tr>
<td>Details</td>
<td>Contact the State Pavement Design Office for approval, prior to using this item.</td>
<td></td>
</tr>
</tbody>
</table>

This item intended for placing a thin asphalt layer for covering pavement markings, rather than removing conflicting pavement markings, during construction MOT at critical areas such as entrances and exits to Service Plazas and Toll Plazas.

For Plan Detail/Tech Spec items: The Designer should ensure that the description,

---

**Details and Structure:** Items 100 to 1999
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**

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Forms</td>
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<tr>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>Refer to Comp Book</td>
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<tr>
<td>Documentation</td>
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<td>Design</td>
<td></td>
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<tr>
<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
</tr>
</tbody>
</table>

**References**

- PPM Chapter
- Other
- Standards
- Specifications
- Prep & Doc Manual Chapter(s)

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

**Status**

- Struct. 908-102-1 MICROSURFACING FOR MOT SY

**Notes** Approval Required

### 908-104-1 CONTRACTOR’S SEDIMENT AND EROSION CONTROL

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

**Notes** DEVELOPMENTAL SPECIFICATION REQUIRED; to be used only with permission of State Construction Engineer and/or State Drainage Engineer. Valid only for projects let July 1, 2008 to December 31, 2008

**Details**

- When this item is used, DO NOT USE any other Sediment/Erosion Control items (104 items).
- ***********************DRAFT BELOW**********
- ********PPM Guidance Pending **************
- For the purposes of providing the contractor information needed for the development of its Erosion and Sediment Control Plan, the Department’s Engineer of Record would need to provide the following information in the plans:

1. Delineation of wetland areas
2. Identification of Limits of Construction
3. Hydraulic maps
4. Contour maps
5. existing drainage facilities
6. drainage maps with flow patterns identified
7. forms required for reporting and documenting compliance
8. runoff coefficients
9. NPDES requirements

**Related Items**

<table>
<thead>
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<th>Recommended</th>
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<tbody>
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<td></td>
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<td>Construction</td>
<td>SHTabQuant COMP 700-050-05</td>
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<td>Design</td>
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Details and Structure: Items 100 to 1999
808-400-1  
**SKYWAY- LIGHTNING PROTECTION SYSTEM**

<table>
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<tr>
<th>Unit</th>
<th>EA</th>
<th>Accuracy</th>
<th>Each</th>
<th>PlanQuantity?</th>
<th>yes</th>
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</thead>
</table>

**Notes**

SKYWAY Bridge Only. One-time use item for bridge structure.

**Related Items**

Required

Recommended

**Forms**

Design

Construction

**Documentation**

Design

Construction

**References**

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)
### 908-430- A

**DRAINAGE MATERIALS**

- **A** = Operation
- 1 (Furnish Only) Project specific item, 5/08 letting

**Notes**

One-time use; District 1 item

### 908-431- A

**PIPE LINER- SECTIONAL REPAIR**

- **Unit** LF; M1
- **Accuracy** Linear Foot; 10th of a Meter

**Notes**

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.

**Required**

**Recommended**

**Forms**

- **Construction** Refer to Comp Book

**Documentation**

- **Design** Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction** Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

---

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

**Status**

- **Struct.** 908-430- A

**Notes**

Details and Structure: Items 100 to 1999
### 908-463- A  FIBER REINFORCED COMPOSITE DECK

<table>
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<tr>
<th>Unit</th>
<th>SF; M2</th>
<th>Accuracy</th>
<th>Square Foot; 10th of a Square Meter</th>
<th>PlanQuantity?</th>
</tr>
</thead>
</table>

**Notes**  
Valid only for test project

**Details**  
One time use only: Project 415316-1-52-01, let 3-25-09

INSTALL: Decking to be purchased by FDOT. Contractor will pick up materials from operation center and install it per plans & specifications.

**Related Items**  
Required

**Forms**  
Design
Construction

**Documentation**  
Design
Construction

**References**  
PPM Chapter
Other
Standards
Specifications

Plan Detail and/or Tech Spec Required

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

---

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

| 0100 | Structures |

**Status**

**Struct.**  
908-463- A  
FIBER REINFORCED COMPOSITE DECK  
SF

A= Operation
1 (Install)

**Notes**

One-time use; project 415316-1-52-01, let 3-25-09

---

### 908-648- A  SIGNALS TRUSS, SPECIAL

<table>
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<tr>
<th>Unit</th>
<th>Accuracy</th>
<th>PlanQuantity?</th>
</tr>
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</table>

**Notes**

Limited use item

**Details**

Opened for selected District 1 projects for signals structures (truss).

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

**Forms**  
Design
Construction

**Documentation**  
Design
Construction

**References**  
PPM Chapter
Other
Standards
Specifications

Plan details and/or Tech Specs required

Prep & Doc Manual Chapter(s)

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

**Status**

**Struct.** 908-648- A SIGNALS TRUSS, SPECIAL

A= Operation

1 (F&I) Project 417365-1-52-01, 9/10
2 (F&I) Project 408268-5-52-01, 3/09

Notes

<table>
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<th>LUMP SUM CONTRACT (ALTERNATIVE BIDDING)</th>
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<tbody>
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<td>PlanQuantity?</td>
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</table>

**Notes**

Details

See latest guidelines for Innovative Bidding practices.

Related Items

Required

Forms

Design

Construction

Documentation

Design

Construction

References

PPM Chapter

Other

Standards

Specifications

Prep & Doc Manual Chapter(s)

Contact Final Estimates

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

**Status**

**Struct.** 999- 2- LUMP SUM CONTRACT (ALTERNATIVE BIDDING) LS/LS

Notes

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<th>LANE RENTAL DAYS (TIME BID)</th>
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<td>PlanQuantity?</td>
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</table>

**Notes**

Details

See latest guidelines for Innovative Bidding Practices.

Related Items

Required

Forms

Design

Construction

Documentation

Design

Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
999-16- PARTNERING (DO NOT BID)

<table>
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<th>Unit</th>
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<th>Accuracy</th>
<th>Lump Sum</th>
<th>PlanQuantity?</th>
<th>yes</th>
</tr>
</thead>
</table>

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
- Design: SHTabQuantLS
- Construction: COMP 700-050-05

Recommended
- Design: Refer to Comp Book
- Construction: Computation book form or documentation from Construction required.

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

<table>
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<tr>
<th>Related Items</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Design</td>
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</tr>
<tr>
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<td>Record final quantity on the computation book form.</td>
</tr>
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<td></td>
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<td>Prep &amp; Doc Manual Chapter(s)</td>
<td>11, 13</td>
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</table>

**TRNS**<sup>PORT Category (DRAFT FIELD):</sup> 0200 Roadway

**Status**

**Struct.** 999- 20- DISPUTE REVIEW BOARD (DO NOT BID) DA

**Notes**

**INITIAL CONTINGENCY AMOUNT (DO NOT BID)**

<table>
<thead>
<tr>
<th>Unit</th>
<th>$</th>
<th>Accuracy</th>
<th>Dollars</th>
<th>PlanQuantity?</th>
<th>no</th>
</tr>
</thead>
</table>

**Notes**

IMPORTANT: INITIAL CONTINGENCY TOTAL IS BASED ON PROPOSAL TOTAL, not individual project totals.

**Details**

Use when requested by Construction, in accordance with the CPAM. The item will be loaded as FA 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.

<table>
<thead>
<tr>
<th>Related Items</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
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<td>Refer to Comp Book</td>
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<td>Design</td>
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<tr>
<td></td>
<td>Specifications</td>
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</table>
### 999-102- A  SPEED AND LAW ENFORCEMENT OFFICER (DO NOT BID)

<table>
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<th>Unit</th>
<th>MH</th>
<th>Accuracy</th>
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</thead>
<tbody>
<tr>
<td>Notes</td>
<td>Monitor: Cheryl Adams</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A=Contract Type refer to contract between FDOT and Law enforcement, NOT type of Construction Contract.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Details</td>
<td>This item is used 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Related Items</td>
<td>Required</td>
<td>Recommended</td>
<td></td>
</tr>
<tr>
<td>Forms</td>
<td>Design</td>
<td>SHTabQuant</td>
<td>COMP 700-050-03</td>
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<td></td>
<td>Construction</td>
<td>Refer to Comp Book</td>
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</tr>
<tr>
<td>Documentation</td>
<td>Design</td>
<td>Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.</td>
<td></td>
</tr>
<tr>
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<td>Construction</td>
<td>Record final quantity on the tabulation sheet (plans) or computation form (comp book).</td>
<td></td>
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<tr>
<td>Standards</td>
<td>Specifications</td>
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</tr>
</tbody>
</table>

**Notes**

A =
1 = Central Office Statewide Contract
2 = District Contract

---

### 999-455- AB  PILING- PRESTRESSED

<table>
<thead>
<tr>
<th>Unit</th>
<th>LF; M1</th>
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</thead>
<tbody>
<tr>
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<tr>
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**Related Items**

**Prep & Doc Manual Chapter(s)**
### Topic No. 600-000-002

#### Basis of Estimates

**2008 Edition**  
**May 28, 2008**

---

<table>
<thead>
<tr>
<th><strong>Forms</strong></th>
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</tbody>
</table>

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0100 Structures

---

**Status**

- **Struct.** 999-455-AB  
  - **PILING- PRESTRESSED**  
  - **LF**

  A = 1 Piling (Prestressed Concrete)  
  2 Test Piling (Prestressed)

---

**Notes**

---

### 999-715- A  
**HURRICANE REPAIRS- LIGHTING**

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

**Notes**

Valid for Hurricane Repairs only.

**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**

**Forms**

- **Required**
  - **Design** SHTabQuant  
  - **Construction** Refer to Comp Book

- **Recommended**
  - **Design** SHTabQuant  
  - **Construction** COMP 700-050-03

**Documentation**

- **Design**: Locate in plans. Summarize quantities by location on tabulation of quantities sheet in the plans, or detail calculations in the computation book.
- **Construction**: Record final quantity on the tabulation sheet (plans) or computation form (comp book).

**References**

- **PPM Chapter**
- **Other**
- **Standards**
- **Specifications**

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

---

**TRNS*PORT Category (DRAFT FIELD):** 0400 Lighting

---

**Status**

- **Struct.** 999-715- A  
  - **HURRICANE REPAIRS- LIGHTING**  
  - **EA**

---

**Details and Structure: Items 100 to 1999**

---

Page 450 of 451
**A= Sequential Order of Items; may be expanded upon request.**

1. (Ballast) EA
2. (Lamp, HPS) EA
3. (Lamp, Mercury Vapor) EA
4. (Lamp, Metal Halide) EA

---

### 9AA-BBB-CC SPECIAL, GENERIC, DEVELOPMENTAL, OR TRIAL PAY ITEMS: SECTION

<table>
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### Details

#### Related Items

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#### Documentation

<table>
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<tbody>
<tr>
<td><strong>Construction</strong></td>
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#### References

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</table>

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

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**TRNS*PORT Category (DRAFT FIELD):** 0000 Administrative

### Status

**Struct.** 9AA-BBB-CC SPECIAL, GENERIC, 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.