



*Florida Department of Transportation*

JEB BUSH  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

DENVER J. STUTLER, JR.  
SECRETARY

**MEMORANDUM**

**DATE:** April 26, 2006

**TO:** Ananth Prasad, Chief Engineer

**FROM:** Robert Greer, Director, Office of Design  
Brian Blanchard, Director, Office of Construction  
Tim Lattner, Director, Office of Maintenance

**COPIES:** Kevin Thibault, Assistant Secretary for Engineering Operations

**SUBJECT:** Basis of Estimate Handbook – 2006 Mid-Year Update

I approve the Implementation Plan for each issue outlined in the:

**2006 Basis of Estimate Handbook  
Summary of Major Changes**

Robert Greer \_\_\_\_\_  
Director, Office of Design

Brian Blanchard \_\_\_\_\_  
Director, Office of Construction

Tim Lattner \_\_\_\_\_  
Director, Office of Maintenance

**DATE:** April 26, 2006

**TO:** Basis of Estimate Handbook Users

**FROM:** Paul Herring and Melissa Hollis

**E-COPY:** Ananth Prasad, Robert Greer, Brian Blanchard, Phillip “Greg” Davis, William Nickas, Duane Brautigam, Tim Lattner, District Design Engineers, District Project Management Engineers, District Structures Design Engineers, District Construction Engineers, District Pavement Design Engineers, District Estimates Engineers and District Specifications Engineers

**SUBJECT: 2006 Basis of Estimates Handbook, Mid-Year Update  
Summary of Major Changes**

The Coordination Team made recommendations for the implementation of changes to pay items and specifications that have been developed within the last six months. The implementation plan for each issue has been approved by the appropriate office. The Directors of Design, Construction, and Maintenance have concurred with the overall implementation. A detailed description of each of these changes and their implementation date is attached. The following is a summary of issues addressed in this update:

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## **Minor Issues, Announcements, General Notices**

### **Issue: 2007 Specifications Book**

The 2007 Specifications Book is being printed and will be available in May 2006, to be effective with the January 2007 letting. An initial limited distribution to FDOT personnel will be made through the District Specifications Offices. Consultants may order copies through the Maps and Publications web page at <http://www.dot.state.fl.us/mapsandpublications> .

### **Issue: Design Update Training on CD**

This year's Design Update Training is available on CD's as a computer based training. A copy of all correlating manuals will be provided on CD. The CBT will be structured similar to the traditional Update Training presentation format with PowerPoint ® presentations and information regarding updates to the Plans Preparation Manual (PPM) and other related areas of Design. FDOT offices should consider internal group meetings to present this training, so that the information is delivered in a timely manner. To receive PDH credit, a test on the CD's content is required.

The CD's were mailed to all current PPM holders in January 2006. If you have changed companies or moved to another address within the last two years, please Email your correct information to [Lisa.Proctor@dot.state.fl.us](mailto:Lisa.Proctor@dot.state.fl.us)

This year's Design Update Training will also be available to all for downloading from the Roadway Design Website. If you are not a PPM holder the 2006 Design Manual CD containing the Design Update Training may be requested from Maps and Publications.

### **Issue: Fender Systems**

In January 2006, the Structures Design Office issued new standards for bridge fender systems. Included in these standards are multiple systems whose selection depends on the type of navigation traffic the channel experiences. Two of these systems utilize plastic piles and wales; one system utilizes concrete piles and plastic wales.

### **Issue: Precast Box Culverts**

No later than July, 2006, the Structures Design Office will issue new standards for precast concrete box culverts. Included in these standards will be typical concrete and reinforcing details as well as design tables for the reinforcing size and spacing that are commensurate with our environmental classifications. Section 410 of the specifications is being completely revised to eliminate reliance on AASHTO and/or ASTM standards to fabricate these products. Section 407 for Three-Sided Precast Culverts is also being revised. No implementation has been set at this time. Periodically check the Structures Design Office web pages for Design Bulletins.

### **Issue: TRNS\*PORT Pay Items**

Having trouble with TRNS\*PORT pay items? A brief handout is available to guide you through solving most of the pay item issues. The helpful hints page is located on the BOE web pages at <http://www.dot.state.fl.us/estimates/BOE/HelpfulHints.pdf>

Please remember to load items into the correct category. For example, the ITS items should only be loaded in an ITS category, Landscape items in the landscape category, and Bridge items in the appropriate bridge category. Even if the item description "sounds good" for the work to be completed, the pay item section (first 3-4 digits of the pay item) must correspond to the specification section.

Some common errors include item 350 (concrete pavement joints- Roadway) used where item 400 (structures) should be used, or 750 (Architectural) where Bridge, roadway or signals items should be used. If a new item needs to be created, please refer designers to the instructions in Chapter 6 of the Basis of Estimates; do not try to "hide", "plan note", or "substitute items" to avoid a pay item request. Most pay item requests are completed in 1-2 days.

Specifically for bridges, please ensure that each bridge has the correct bridge ID number (new number for new/replacement bridges), and correct length/width. For bridge widening, only the widened width is entered. Quantities for steel, concrete, and other materials need to be entered for EACH bridge as designed. These items and quantities are used to calculate the overall \$/area for each bridge, and are based on the above data. DO NOT artificially condense/distribute items to various bridges to simplify data entry- this results in extreme high/low bridge costs within a contract.

If you need assistance with any pay item issue, please contact your District Estimates Office.

**Issue: Synthetic Bales (Replaces Hay/Straw Bales)**

**History:** Hay/Straw bales have been used to protect drainage structures from silt during construction operations. The following changes are being made:

- a) natural to synthetic materials:* improve desilting capabilities
- b) size:* manufactured in a variety of sizes and shapes
- c) unit of measure:* changed from “each” to “foot” for length to be protected. Standard lengths for common inlets will be shown on the Design Standards.
- d) replacement:* synthetic bales may be cleaned or replaced as needed. 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.
- e) Qualified Products List:* All synthetic bales must be on the QPL.

**Implementation Plan:**

**Central Office Design:** The Design Standards have already been changed to reflect the policy requirements. Natural Hay bales will still be allowed until the January 2007 implementation.

**Central Office Estimates:** Establish the following new pay item, effective with the January 2007 letting:

0104- 10- 2 Synthetic Bales, LF

Permanently block the following pay items on December 31, 2006:

0104- 10- 1 Baled Hay or Straw, EA

**District Design:** Update the pay item and quantities. **Remove any plan notes regarding replacement of hay bales** (see pay item footnotes) effective with the January 2007 letting.

**Specifications:** Specifications will be available for the January 2007 letting.

**Contact Person(s)**: Jerome Taylor, 850-414-4355, SC 994-4355

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Plastic Piles and Plastic Lumber for Fender Systems**

**History:** Fender system standards have been developed using plastic components.

A pay item change is required to differentiate the various components of the fender systems.

Note that the pay item for Removal & Disposal of Bridge Fender System (item 110-71-1) is to be used for Rehab Projects only. For new bridges or replacement bridges, payment for the removal of the existing fender system is included in the item for Removal of Existing Structures (item 110-3).

**Implementation Plan:**

**Central Office Design:** Standards are available on the web at the following address:  
<http://www.dot.state.fl.us/rddesign/rd/2006%20Interims/2006%20Interims.htm>

**Central Office Estimates:** Establish the following new pay items effective January 2007 letting:

471-1-xxa	Fender System Plastic Lumber, MB
0	(non-reinforced)
1	(reinforced)
455-37-xxa	Fender System Plastic Composite Piles, LF
1	(13" diameter)
2	(16" diameter)

Permanently block the following pay items on December 31, 2006

470-3-A	Marine Lumber Plastic	MB
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**District Design:** Update plans and Summary of Pay Items to indicate the use of the new pay items beginning with the January 2007 letting.

**Specifications:** Specifications will be available for the January 2007 letting.

**Contact Person(s):** Charles Boyd, 850-414-4275, SC 994-4275

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** William Nickas \_\_\_\_\_ Date \_\_\_\_\_  
State Structures Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Structures Expansion Joints**

**History:** Standards, specifications, and pay items have been updated to reflect the following changes:

Standard Index 21110 for Poured Joints with Backer Rods used on bridges has been developed to replace project specific designs used in the past. Standard Index 21100 for bridge Strip Seal Expansion Joints is already available.

Specification Section 932 is being revised to include material requirements that were previously shown on the Indexes. Specification Section 458 was changed to define and address the minimum requirements for poured joints with and without backer rods, and strip seal expansion joints. Note: Technical Specifications will continue to be required for modular and finger expansion joints and rehabilitation / repair of existing joints.

New pay items have been created to address payment for all bridge deck expansion joints in a simplified and uniform manner. Note that there is no change to pay items 370-1 Bridge Approach Expansion Joint and 400-32 Concrete for Joint Repair projects.

**Implementation Plan:**

**Central Office Design:** Interim Standards will be available with the July 2006 release on the web at the following address :

<http://www.dot.state.fl.us/rddesign/rd/2006%20Interims/2006%20Interims.htm>

**Central Office Estimates:** Establish the following new pay items effective January 2007 letting:

458-1-AB Bridge Deck Expansion Joint, LF

A= Operation

- 1 New construction (Furnish and install)
- 2 Rehabilitation / repair (Clean, seal and or replace)

B= Type

- 1 Poured Joint with Backer Rod
- 2 Strip Seal
- 3 Modular (Tech Spec Required)
- 4 Finger (Tech Spec Required)
- 5 Compression Elastomeric (Rehab only)
- 6 Other

Permanently block the following pay items on December 31, 2006

400-12 Cleaning and Sealing Joints (Structures Rehabilitation and Widening)  
460-7-AA Expansion Joint Seal, LF  
460-8-ABB Elastomeric Preformed Joint Seal, LF  
460-30 Finger Joint, LF  
460-92-A Modular Expansion Assembly, LF

**District Design:** Update plans and Summary of Pay Items on applicable projects beginning with the January 2007 letting.

**Specifications:** Specifications will be available for the January 2007 letting.

**Contact Person(s):**

Charles Boyd, SC 994-4275, 850-414-4275

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** William Nickas \_\_\_\_\_ Date \_\_\_\_\_  
State Structures Design Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Pipe Sizes for Optional Pipe**

**History:** Optional Pipe sizes have been consolidated to several size ranges based on items with similar bid prices. Designers will continue to identify size and shape by location in the plans. Material options may continue to be limited in accordance with the Drainage Manual and/or Plans Preparation Manual.

Also, selected non-standard pipe sizes have been updated.

- Slotted or perforated pipe culvert (used for optional drain) will be limited to sizes 15-72"; larger sizes have been blocked.
- Flared End Sections, metric sizes larger than 1900mm will be blocked.

**Implementation Plan:**

The following items will be blocked, effective December 31, 2006:

- 430-17A-BCC Optional Pipe, LF  
CC=21 to 57 only
- 430-72A-BCC Slotted or Perforated pipe culvert, LF  
CC= 46 to 57 only (sizes greater than 72")
- 430-200-ABB Flared End Section, EA  
CC= 46 to 57 only (sizes greater than 1900mm)

The following items will be valid, effective January 1, 2007:

- 430-17A-BCC Optional Pipe, LF  
CC= 01(up to 24")  
02(25 to 36")  
03(37 to 48")  
04(49 to 60")  
05(61" and greater)

**District Design:** Update plans and Summary of Pay Items on applicable projects to include pay items for conduit beginning with the January 2007 letting.

**Specifications:** No specification changes are needed.

**Contact Person(s):**

Jerome Taylor, SC 994-4117, 850-414-4117

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** William Nickas \_\_\_\_\_ Date \_\_\_\_\_  
State Structures Design Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Desilting Pipe and Box Culverts**

**History:** The specification for desilting of pipe and box culverts has been updated to clarify the method of measurement. For pipe, the payment will be based on the diameter of the pipe, measured along the length to be desilted. Sizes have been updated to match the new diameter ranges for optional pipe.

For box culverts, the payment will be based on the volume of silt to be removed, NOT the volume of the box culvert. For example, the volume of silt to be removed for a 9'x6'x21' box culvert that is 50% full will be (in cubic yards)  $3 \times 2 \times 7 \times 0.5 = 21$  CY of silt to be removed. Tabulate quantities of silt to be removed, by location, in the plans.

**Implementation Plan:**

No change to the following pay item (note measurement above):

430-950- Desilting Box Culvert, CY

The following item will be blocked, effective December 31, 2006:

430-94A-XBB Pipe, Desilt, LF

The following item will be valid, effective January 1, 2007:

430- 94- AA Desilt Pipe, LF  
AA= Pipe Diameter  
1 (up to 24")  
2 (25-36")  
3 (37-48")  
4 (49-60")  
5 (61" or greater)

**District Design:** Update pay items as necessary. Verify that quantities (based on the above) are shown in the plans.

**Specifications:** Specifications will be available for the January 2007 letting.

**Contact Person(s):**

Jerome Taylor, SC 994-4355, 850-414-4355

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** William Nickas \_\_\_\_\_ Date \_\_\_\_\_  
State Structures Design Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Performance Turf**

**History:** The following changes have been made in an effort to update, consolidate and clarify specifications related to turf growth.

- Sections 570 (Grassing), 575 (Sodding) and Developmental Specification 576 are combined to create a performance related specification for turf. In addition, this section will have language for hydro-seeding and bonded fiber matrix.
- Section 981 (Grassing and Sodding Materials) is updated to support the new 570 Performance Turf specification.
- Update Standard Indexes 104 and 105 to the new specification.

The Designer should use the Performance Sod item only where sod is specifically called for in the plans. At all other locations, the Contractor may choose to use seed or sod to meet the Performance Turf requirements. Tabulate the quantity of each, by location, in the plans.

**Implementation Plan:**

**Central Office Design:** Design Standard Indexes 104 and 105 will be updated to reflect the above changes.

**Central Office Estimates:** Establish the following new pay items:

570-1-a	Performance Turf, SY
a =	Type
	1(Turf)
	2 (Sod)

Permanently block the following pay items on December 31, 2006:

570-1	Seeding, SY
570-2	Seeding and Mulching, SY
570-3-xxa	Grass Seed (Permanent Type), LB
570-4	Mulch Material, TN
570-5	Fertilizer, TN
570-9	Water for Grassing, MG
570-10	Seed, Grass (Quick Grow Type), LB
570-12	Wildflower Seed, LB
570-73	Salvage Turf and Topsoil, SY
570-74	Liquid Latex, GA
573-1	Hydro-Seeding, SY
573-2	Grass Seed (for Hydro-Seeding), LB
573-3	Fertilizer (for Hydro-Seeding), LB
573-4	Fiber Mulch (for Hydro-Seeding), LB
575-1-xxa	Sodding, SY

**District Design:** Update plans and Summary of Pay Items to indicate the use of the new pay items beginning with the January 2007 letting.

**Specifications:** Specifications will be available for the January 2007 letting.

**Contact Person(s):**

David Sadler, Office of Construction, (850) 414-5203, SC 994-5203.

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** William Nickas \_\_\_\_\_ Date \_\_\_\_\_  
State Structures Design Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Architectural Items**

**History:** Several Architectural items have been consolidated. The new item groups are:

- Section 750- New Building, including plumbing, electrical, HVAC, and incidentals
- Section 751- Repair/Replacement/Incidentals

Both groups of items will continue to require Technical Special Provisions. Refer to Design Standards for Rest Area Equipment.

Architectural items should be loaded into the TRNS\*PORT Architectural category. Do not use Architectural pay items for non-architectural work.

**Implementation Plan:**

The following item will be blocked, effective December 31, 2006:

735- 73-	Architectural Work, Including Misc Items, LS
750- 71-	Electrical Work
750- 77- A	Building Rest Facility, PB (EA)
750- 78-	Flag Pole, EA
750- 79-	Electrical Power Supply
750- 80-	Telephone Service
750- 81- A	Radio Weather Service Receiver
750- 83-	Septic Tank and Disposal System
750-71A-BCC	Lightning Protection System
751- 1-	Building Asbestos Abatement
753- 72	Lift Station
755- 70-	Sewage Treatment Plant
755- 72-	Water Treatment Plant
760- 70-	Picnic Pavilion
770- 70-	Office Building
770- 77-	Building (Inspection/Comfort Station)
770- 80- 1	Building- Modify Existing
770-81-	Re-roofing Building
770- 82-	Maintenance Facility Building
770- 85-	Parking Garage
770- 89- AB	Additional Uncovered Area, SF
770- 93-ABC	AC System
770- 94-	Heating System
770-ABC-DEF	Building

The following items will be valid, effective January 1, 2007:

750- 1- AB	Architectural Building, LS
	A= Operation
	B= Facility Type
751- 2-	Architectural, Electrical/Power, LS
751- 3-	Architectural, Telephone/Communication, LS
751- 4-	Architectural, Water/Sewer, Interior, LS
751- 5-	Architectural, Sanitary Sewer/Sewage Treatment, LS

751- 6-	Architectural, HVAC, LS
751- 10-	Architectural, Asbestos Abatement, LS
751- 20- A	Architectural, Lightning Protection System, EA
	A= Type of System
751- 30- A	Architectural, Picnic Pavilion, EA
	A= Size, per index

**District Design:** Update plans and Summary of Pay Items on applicable projects beginning with the January 2007 letting.

**Specifications:** No statewide specifications will be available. The above items must be supported by Technical Special Provisions, prepared for each project.

**Contact Person(s):**  
Dean Perkins, Architect, State Structures Design Office, (850) 414-4359, SC 994-4359

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** William Nickas \_\_\_\_\_ Date \_\_\_\_\_  
State Structures Design Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

## Issue: Intelligent Transportation Systems (ITS)

**History:** Special Provisions for ITS components were implemented effective July 2006 letting. The specifications describe the requirements to be met by Contractors in the construction of Intelligent Transportation Systems; and, the requirements to be met by manufacturers, suppliers and contractors in providing equipment or materials for approval on the Approved Product List (APL).

The State Estimates Office established the ITS Category in Trns\*port as 550. The Designer Web Pages are currently being updated to include this new category. If you have an ITS project prior to the implementation of this change, please contact your District Estimates Office for assistance. All ITS pay items must be loaded into the ITS 550 Category.

Below is a complete list of items established for the ITS specifications implemented July, 2006 and the new items to be implemented January, 07.

### Implementation Plan:

**Central Office Design:** Update PPM Vol 1, Chapter 7.

**Central Office Estimates:** The State Estimates Office will establish an ITS Category in Trns\*port. All ITS pay items must be loaded into the ITS Category. Do not use signalization and/or structures pay items for ITS components.

The following new pay items are anticipated, effective with the July 2006 letting. (Refer to the BOE Pay Item Structure for details):

781- 1a-bcd	ITS Dynamic Message Sign, Each
781- 2- ab	ITS Highway Advisory Radio, Each
782- 1- ab	ITS Closed Circuit TV Camera, Each
782- 2-abc	ITS Video Display, Each
783- 1-abc	ITS Fiber Optic Cable, LF
783- 2- ab	ITS Fiber Optic Connection, Each
783- 3- ab	ITS Fiber Optic Connection Hardware, Each
783- 4- ab	ITS Conduit, LF
783- 5- a	ITS Pull Box, Each
783- 6- a	ITS Splice Box, Each
784- 1- a	ITS Managed Field Ethernet Switch, Each
784- 2- a	ITS Device Server, Each
784- 3- ab	ITS Digital Video Encoder with Software Decoder, Each
784- 4- ab	ITS Digital Video Decoder, Each
785- 1- ab	ITS Pole, Each

Pay items established for the January, 2007 implementation: (Refer to the Pay Item Structure in BOE)

786- 1 xab ITS Vehicle Detection System, Each

**District Design:** Update plans and Summary of Pay Items to indicate the use of the new pay items beginning with the July 2006 letting.

**Specifications:** Specifications are currently available, implemented for the July 2006 letting.

**Contact Person:** Gene Glotzbach, ITS Engineer Administrator, Traffic Engineering and Operations Office, (850) 410-5616, SC 210-5616.

**Approved:** Lap Hoang \_\_\_\_\_ Date \_\_\_\_\_  
State Traffic Operations Engineer

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** William Nickas \_\_\_\_\_ Date \_\_\_\_\_  
State Structures Design Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Traffic Stripe- Two Reactive Components**

**History:** The pay items for Section 709 have been restructured, similar to Thermoplastic Stripe.

**Implementation Plan:**

The following items will be blocked, effective December 31, 2006:

709- 11- 1	Traffic Stripe Skip, Two Reactive Comp, White/Black, GM
709- 12- 1	Traffic Stripe Skip, Two Reactive Comp, Yellow, GM
709- 21-AAA	Traffic Stripe Solid, Two Reactive Comp, White/Black, LF
709- 22-AAA	Traffic Stripe Solid, Two Reactive Comp, Yellow, LF
709- 31-AAA	Traffic Stripe Solid, Two Reactive Comp, White/Black, NM
709- 32-AAA	Traffic Stripe Solid, Two Reactive Comp, Yellow, NM
709- 3A-	Pavement Messages, Two Reactive Comp, EA
709- 41- 1	Skip Traffic Stripe, Two Reactive Comp, Alternating White/Black, GM
706- 4A-	Directional Arrows, Two Reactive Comp, EA
709- 5A-	Guidelines, Two Reactive Comp, LF
709- 7A-	Pavement Markings, Epoxies/Urethanes, Remove, SF

The following items will be valid, effective January 1, 2007:

709- 1A-BCD	Two Reactive Components
A= Class	
1 (Standard)	
7 (Remove) SF, BCD=blank	
B= Color	
1 (White)	
2 (Yellow) C=1, 2, 3, 4	
3 (Black)	
C= Type of Marking	
1 (Solid) NM	
2 (Solid) LF	
3 (Skip) GM, D=1 or 2	
4 (Skip) LF, D=1 or 2	
5 (Dotted/Guideline) LF, D=1	
D= Width	
1 (6")	
2 (8")	
3 (12")	
4 (18")	
5 (24")	

**District Design:** Update plans and Summary of Pay Items on applicable projects beginning with the January 2007 letting.

**Specifications:** Specifications will be available for the January 2007 letting.

**Contact Person(s):**

Chester Henson, SC 994-4117, 850-414-4117

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer

**Issue: Traffic Stripe- Paint**

**History:** The pay items for Section 710 have been restructured, similar to Thermoplastic Stripe.

**Implementation Plan:**

The following items will be blocked, effective December 31, 2006:

710- 5-	Guidelines, Paint, LF
710- 6-	Directional Arrows, Painted, EA
710- 7-	Pavement Messages, Paint, EA
710- 11-	Paint, Remove Existing Markings, SF
710- 21-	Traffic Stripe Skip, White/Black, GM
710- 22-	Traffic Stripe Skip, Yellow, GM
710- 23-AAA	Traffic Stripe Solid, White/Black, NM
710- 24-AAA	Traffic Stripe Solid, Yellow, NM
710- 25-AAA	Traffic Stripe Solid, White/Black, LF
710- 26-AAA	Traffic Stripe Solid, Yellow, LF
710- 27-	Skip Traffic Stripe, White/Black/Blue, LF
710- 28-	Skip Traffic Stripe, Yellow, LF
710- 29-	Reflective Paint (Island Nose), White, SY
710- 30-	Reflective Paint (Island Nose), Yellow, SY
710- 79-	Traffic Stripe Alternating Skip, GM

No change to the following item:

710- 90-	Painted Pavement Markings, Final Surface, LS
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The following items will be valid, effective January 1, 2007:

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
3	(Black)
4	(Blue) C= 2, 6
C= Type of Marking	
1	(Solid) NM
2	(Solid) LF
3	(Skip) GM, D=1 or 2
4	(Skip) LF, D=1 or 2
5	(Dotted/Guideline) LF, D=1
6	Message) EA, D=0
7	(Arrows) EA, D=0
8	(Yield Message) EA, D=0
D= Width	
1	(6")
2	(8")

- 3 (12")
- 4 (18")
- 5 (24")

**District Design:** Update plans and Summary of Pay Items on applicable projects beginning with the January 2007 letting.

**Specifications:** Specifications will be available for the January 2007 letting.

**Contact Person(s):**

Chester Henson, SC 994-4117, 850-414-4117

**Approved:** Duane F. Brautigam \_\_\_\_\_ Date \_\_\_\_\_  
State Specifications Engineer

**Approved:** Phillip "Greg" Davis \_\_\_\_\_ Date \_\_\_\_\_  
State Estimates Engineer

**Approved:** David O'Hagan \_\_\_\_\_ Date \_\_\_\_\_  
State Roadway Design Engineer

**Approved:** David Sadler \_\_\_\_\_ Date \_\_\_\_\_  
State Construction Engineer