

DATE: January 1, 2000

TO: Basis of Estimate Handbook Holders

FROM: Cheryl Adams, CES Coordinator

COPY: Ken Morefield, Freddie Simmons, Bill Albaugh, Greg Xanders, Lex Chance, William Nickas, Duane Brautigam, Billy Hattaway, Bruce Dietrich, District Design Engineers, District Project Management Engineers, District Structures Design Engineers, District Construction Engineers and District Specifications Engineers

SUBJECT: **2000 Edition - Basis of Estimate Handbook
Summary of Major Changes**

The Coordination Team has made recommendations on 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 and concurred in by the Directors for the Offices of Design and Construction. A detailed description on each of these changes and their implementation dates is attached. The following is a summary of the issues addressed in this update:

<i>Group</i>	<i>Resolved Issue Description</i>	<i>Effective Letting</i>	<i>Page No.</i>
Pavement	Superpave Asphalt Concrete	July 2000	4
Traffic	Traffic Monitoring Items	January 2000	5-9
Utility	New Utility Structure	July 2000	See Section 4 of this Handbook for new Utility Pay Item Structure

<i>Group</i>	<i>Issues Under Development</i>	<i>Target Letting Dates</i>	<i>Notes</i>
Traffic	Mast Arms and Poles	January 2001	See Internet Site (<i>I</i>) in March for detailed implementation plan
Traffic	Traffic Signals	January 2001	See Internet Site (<i>I</i>) in March for detailed implementation plan

(1) [www.dot.state.fl.us/Doing Business With DOT / Roadway Design / Roadway Updates /](http://www.dot.state.fl.us/Doing%20Business%20With%20DOT/Roadway%20Design/Roadway%20Updates/)
File will be named BE0003XX.pdf with xx being the day signed.

**A complete reprint of the July 1, 1999 Cover letter is available on this web site: BE990701.pdf
The implementation plans identified in it are still valid, the only change is the “final” Utility Pay Item structure is included in Section 4 of this handbook.**

Additional Information to Designers:

Minor changes to pay items that may affect plans production are as follows:

English Item No.	Metric Item No.	Pay Item Description	Critical Date	Effective Letting	Notes
162-4 SY	2162-4 SM	Organic Soil Layer	Open 11/99	7/2000	See Plans Preparation Manual Chapter 3 6" (150mm)
163-1-xxa SY a 1 = 12" 2 = 18" 3 = 24" 4 = 30" 5 = 36" 6 = 42" 7 = 48" 8 = 54" 9 = 60"	2163-1xxa SM a 1 = 300mm 2 = 500mm 3 = 600mm 4 = 800mm 5 = 900mm 6 = 1000mm 7 = 1200mm 8 = 1400mm 9 = 1500mm	Blanket Material	Open 11/99	7/2000	See Plans Preparation Manual Chapter 3 Blanket Material
519-76-xxa	2519-76-xxa	Precast Conc. Pavers	BLOCK 6/30/2000	7/2000	Use 526-1-xxa (2526-1-xxa)
526-70-xxa	2526-70-xxa	Brick Pavers	BLOCK 6/30/2000	7/2000	Use 526-1-xxa (2526-1-xxa)
526-1-aax	2526-1-xxa	Pavers, Architectural (SY/SM)	Open 11/99	7/2000	Pavers, Architectural a 1 = Roadway 2 = Sidewalk
570-11	2570-11	Water for Plant Establishment	BLOCK 6/30/2000	7/2000	Specifications have been updated to include cost of water in the cost of plant pay item(s).
570-12	2570-12	Wildflower Seed	Not Applicable	As Practical	English rates shown in the July 1, 1999 cover letter table were in error for English rates. See new table and rates below.

Wildflower Rates: The Roadway and Traffic Design Standards are under development to include the following chart for Wildflower Seeding Rates. Unless specified otherwise in the plans, only one of the following wildflower seed varieties shall be planted:

Wildflower Seeding Rates		
Common Name (Botanical Name)	English Pounds/acre	Metric Kilograms/hectare
Indian Blanket (Gaillardia pulchella)	25 10	11.2
Black-eyed Susan (Rudbeckia hirta)	5.5 2	2.25
Lance-Leafed Tickseed (Coreopsis lanceolata)	25 10	11.2
Annual Phlox (Phlox Drummondii)	25 10	11.2
Moss Verbena (Verbena tenuisecta)	15 6	6.7

Metric/English: All the changes listed in this cover letter, with the implementation dates shown for each individual item, apply to both English and Metric projects, unless otherwise noted.

Internet/Infonet:

Roadway Design's Web Site will contain this letter highlighting the Basis of Estimate Handbook Summary of Major Changes.

Specifications' Web Site will contain specifications identified in this letter as they become available.

Estimates' Web Site will contain all BOE information

Specifications: Beginning with jobs let in July 2000 all jobs will be let under the 2000 Specification Book, in dual units.

New Computation Book Forms: Designers and Construction personnel are advised to use the new computation forms whenever possible, beginning immediately. It is acceptable to have old computation forms and new computation forms within the computation book to document quantities for a project.

Effective with the July 2000 letting

Issue: *Superpave Asphalt Concrete*

History: New Traffic levels have been developed for superpave asphaltic concrete. Refer to the Pavement Design Manual, 2000 edition.

Implementation Plan:

Central Office, Design:

Update the Basis of Estimate Handbook and the Pavement Design Manual to reflect this change.

Establish the following new pay items November 1999.

334-1-xaa	Superpave Asphaltic Concrete	TN
2334-1-xaa	<i>Superpave Asphaltic Concrete</i>	<i>MT</i>

aa = Traffic Level

- 11 A
- 12 B
- 13 C
- 14 D
- 15 E

Permanently block existing pay items below on June 30, 2000:

334-1-xxa	Superpave Asphaltic Concrete	TN
2334-1-xxa	<i>Superpave Asphaltic Concrete</i>	<i>MT</i>

a = Traffic Ranges

- 1 thru 7

District Design: Update plans indicating the new traffic levels, the Summary of Pay Items (CES) and computation book to indicate the appropriate superpave asphaltic concrete tonnage pay item(s) on all projects beginning with the July 2000 letting. Pavement designs do not have to be updated.

Specifications: Specifications will be available for July 2000.

Approved: Bruce Dietrich _____ Date _____
State Pavement Engineer

Approved: Billy L. Hattaway _____ Date _____
State Roadway Design Engineer

Approved: Greg Xanders _____ Date _____
State Construction Engineer

Approved: Lex Chance _____ Date _____
State Estimates Engineer

Approved: Duane F. Brautigam _____ Date _____
State Specifications Engineer

Issue: *Traffic Monitoring Pay Items*

History: The specifications have been updated to reflect current industry technology and practices. In doing this several pay items have changed to be compatible with the specifications.

Implementation Plan

Central Office:

Establish the following new pay items July, 1999

741-70-abc	Traffic Monitoring Site Vehicle Sensor	EA
2741-70-abc	<i>Traffic Monitoring Site Vehicle Sensor</i>	<i>EA</i>

- a= Operation to be performed
 - 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

742-70-xab	Traffic Monitoring Site Weigh-In-Motion Electronics Assembly	AS
2742-70-xab	<i>Traffic Monitoring Site Weigh-In-Motion Electronics Assembly</i>	<i>AS</i>

- a= Operation to be performed
 - 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

743-70-xab Traffic Monitoring Site Vehicle Speed/Classification Unit AS
2743-70-xab *Traffic Monitoring Site Vehicle Speed/Classification Unit* AS

- a= Operation to be performed
 - 1= Furnish & Install
 - 2= Furnish
 - 3= Install
 - 4= Modify
- b= Assembly Components
 - 1= Electronics Unit with Equipment Cable
 - 2= Electronics Unit Only

744-70-xab Traffic Monitoring Site Solar Power Unit AS
2744-70-xab *Traffic Monitoring Site Solar Power Unit* AS

- a= Operation to be performed
 - 1= Furnish & Install
 - 2= Furnish
 - 3= Install
- b= Mounting
 - 1= New Pole
 - 2= Existing Pole

745-70-xab Traffic Monitoring Site Inductive Loop Assembly AS
2745-70-xab *Traffic Monitoring Site Inductive Loop Assembly* AS

- a= Operation to be performed
 - 1= Furnish & Install
 - 2= Furnish
 - 3= Install
- b= Number of Loops Per Lane
 - 1= One
 - 2= Two

746-7a-bcd	Traffic Monitoring Site Cabinet	EA
2746-7a-bcd	<i>Traffic Monitoring Site Cabinet</i>	EA

- a= Operation to be performed
 - 1= Furnish & Install
 - 2= Furnish
 - 3= Install
 - 4= Modify
- 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

747-70-xab	Traffic Monitoring Site Modem	AS
2747-70-xab	<i>Traffic Monitoring Site Modem</i>	AS

- a= Operation to be performed
 - 1= Furnish & Install
 - 2= Furnish
 - 3= Install
 - 4= Modify
- b= Item
 - 1=Modem

Permanently Block the Following items on December 31, 1999:

660-70-abc	Speed Classification Loop Assembly	AS
2660-70-abc	<i>Speed Classification Loop Assembly</i>	AS
661-70-abc	Piezoelectric Axle Sensor	AS
2661-70-abc	<i>Piezoelectric Axle Sensor</i>	AS
662-1ab-cdd	Weigh-In-Motion Electronics Assembly	AS
2662-1ab-cdd	<i>Weigh-In-Motion Electronics Assembly</i>	AS

660-73-xab	Vehicle Speed Classification Unit	EA
2663-73-xab	<i>Vehicle Speed Classification Unit</i>	<i>EA</i>
664-70-xab	Solar Power Unit	EA
2664-70-xab	<i>Solar Power Unit</i>	<i>EA</i>

District Design:

Update plans and CES to indicate the new pay item(s) on all projects beginning with the January 2000 letting, See below for details.

January 1, 2000 to June 30, 2000 - English and Metric Projects:

1. Request signed and sealed detail sheets for Traffic Monitoring Sites from Kip Jones at (850) 488-4111 X 118 or SC 278-4111 X 118. (8 Sheets total)
2. Add Traffic Monitoring Site detail sheets to the back of the appropriate plans and number accordingly. (Signalization, Signing and Pavement Marking or Roadway)
3. Update Index on the appropriate Key Sheet to show Traffic Monitoring Site Sheets.
4. Update CES to use new pay items.
5. Update Summary of Quantities Plan Sheet in plans.
6. Use traffic monitoring specifications available in the January 2000 Workbook.

July 1, 2000 to December 31, 2000 - Metric Projects:

(Note: Metric 2000 Standards should be used starting with July 2000 letting and these sheets are in the printed edition)

1. Use new pay items and traffic monitoring specifications available in the January 2000 Workbook No Special handling required - Pay Items, Specifications & Standards are in agreement.

July 1, 2000 to December 31, 2000 - English Projects:

(Note: English 2000 Standards should be used starting with January 2001 letting and these sheets will be in the printed edition)

1. Download English Interim Indexes valid for July 1, 2000 to December 31, 2000. Add Traffic Monitoring Site Interim Index sheets along with other appropriate Interim Indexes to the back of the Roadway Plans and number accordingly.
2. Update Index on Key Sheet to show Interim Indexes.
3. Update CES to use new pay items.
4. Update Summary of Quantities Plan Sheet in plans.
5. Use specification BSTDS94 and Traffic Monitoring specifications available in the July 2000 Workbook:

Specifications: Specifications are available in the January 2000 workbook for Traffic Monitoring Site Items. Specification (BSTDS94) will be available in the July 2000 workbook making Traffic Monitoring detail sheets Interim Indexes (for English projects after June 30, 2000).

Approved: Billy L. Hattaway _____ Date _____
State Roadway Design Engineer

Approved: Duane F. Brautigam _____ Date _____
State Specifications Engineer