

## CHAPTER 11 ALTERNATIVE CONTRACTS

### 11.1 PURPOSE

This procedure is designed to provide computation and documentation methods for Alternative Contracts. This process establishes procedures and guidelines required by Alternative Contracts for the Project Administrator (PA) and staff to use in building and supporting the specific contract requirements.

### 11.2 SCOPE

The procedure consists of instructions for each type of Alternative Contract. The goal is to reduce the Consultant Engineering Inspection (CEI) cost and time as well as reducing construction impact on motorists, businesses, and homeowners within the transportation corridor.

### 11.3 AUTHORITY

Alternative Contracting Users Guide

<http://www.dot.state.fl.us/construction/AltContract/AltContract.shtml>

Construction Project Administration Manual (CPAM), Topic No. 700-000-000

FDOT Standard Specifications for Road and Bridge Construction

Sections 337.11(7), 337.11(4) and 337.18(4) Florida Statutes (F.S.)

Sections 20.23(4)(a) and 334.048(3) Florida Statutes (F.S.)

### 11.4 CONTRACTS WITH LANE RENTAL FEES

The lane rental concept requires a fee established during design and placed in the contract to be assessed for each day or half-day of lane closure(s) in excess of the number of total lane rental days originally bid by the Contractor (see contract for the applicable days). Once the number of lane rental days used exceeds the total number of lane rental days bid the predetermined lane rental fee will be multiplied by the excess time defined in the contract and the result will be deducted from the monthly estimate's payment.

All lane closures shall be documented on the **Lane Rental Site Source Record, Form No. 700-050-57** beginning and ending times, locations and unit of measure (full or half days) shall be tabulated for each lane rental to be charged. The actual full or half day lane rental shall be charged on the day in which the ending time falls. For example if a lane closure begins at 8:00 p.m. on Monday and reopens at 6:00 a.m. the next day (Tuesday), a half-day lane rental will be shown on Tuesday's **Lane Rental Site Source Record, Form No. 700-050-57**. The Contractor and PA shall mutually agree upon the twenty four (24) hour clock beginning and ending times for lane rental purposes and such agreements shall be recorded in the Preconstruction Conference Minutes.

The **Lane Rental Site Source Record, Form No. 700-050-57** documentation shall be submitted with the Final Estimate reflecting both the Inspector and Contractor signatures agreeing to the total days charged. The Final Lane Rental Incentive/Disincentive dollar amount will be shown as a contract adjustment to the estimate on which it is to be paid. Appropriate adjustment comments will be made when the adjustment is created. (See **Figure 11-45**).

**Damage Recovery**, which states that in addition to the Daily Lane Rental Fee provided in **Section 2-5.1** of the **Specifications**, a damage recovery/user cost will be assessed against the Contractor if all lanes are not open to traffic during the times as shown in the Traffic Control Plans. Costs will be assessed beginning at the appropriate time as shown in the Traffic Control Plans and continue until all lanes are open as recorded by the Engineer. This assessment will be in the following amounts:

First 30 minutes and under: \$\_\_\_\_\_, and each additional 30 minute period or portion thereof: \$\_\_\_\_\_. Such costs will not exceed \$\_\_\_\_\_ over a 24 hour period.

At the discretion of the Engineer, damage recovery/user cost will not be assessed for failure to open traffic lanes if such cause is beyond the control of the Contractor, i.e., catastrophic events, accidents not related or caused by the Contractor's operations. The Florida Department of Transportation (Department) will have the right to apply as payment on such damages any money which is due to the Contractor by the Department.

## 11.5 CONTRACTS WITH A + B BIDDING

The A+B bidding concept is designed to shorten the total Contract Time by allowing each Contractor to bid the number of days in which the work can be accomplished.

In the A+B bidding method, a dollar value for each Contract day is established by the Department prior to the project being advertised. The Contractor will receive an incentive for

each day the work is completed ahead of the Original Contract Time bid. If the Contractor completes the project late, a disincentive will be assessed as well as appropriate liquidated damages per the Contract. For the purpose of the disincentive, the Contract Time maybe adjusted for weather, unforeseen conditions, and extra work as approved.

The ***Daily Work Report and Diary in Site Manager Form No. 700.010-13*** will serve as the supporting documentation for appropriate payment as outlined in ***CPAM Section 5.1***. Each will show the following statements: 1) Today is the first day or the beginning milestone day of the A+B bidding phase of this Contract; 2) Today is the last day of the A + B bidding phase of this Contract.

The final incentive/disincentive dollar amount of the A+B bidding concept will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created.

## 11.6 CONTRACTS WITH NO EXCUSE BONUS

The No Excuse Bonus concept is designed to provide the Contractor with a substantial bonus to complete a project within a specified time frame (as shown in the ***Specifications***) regardless of any problems or unforeseen conditions (no time extensions allowed for the purpose of the bonus). The bonus is tied to a drop-dead date (time frame) that is either met or not met. The ***Daily Work Report and Diary in Site Manager*** will serve as the supporting documentation for appropriate payment as outlined in ***CPAM Section 5.1***. Each set of the above project forms will show the following statements: 1) Today is the first day or the beginning milestone day of the No Excuse Bonus phase of this Contract; 2) Today is the last day of the No Excuse Bonus phase of this Contract.

The final dollar amount of the No Excuse Bonus will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created.

## 11.7 LIQUIDATED SAVINGS CONTRACTS

The liquidated savings concept is to reward the Contractor for each calendar day the Contract is completed and accepted prior to the expiration of allowable Contract Time. Contract Time is adjusted for time extensions under this concept.

The ***Daily Work Report and Diary in Site Manager*** will serve as the supporting documentation for payment as outlined in ***CPAM Section 5.1***. Each set of the above project forms will show the following statements: 1) Today is the first day or the beginning milestone

day of the Liquidated Saving phase of this Contract; 2) Today is the last day of the Liquidated Savings phase of this Contract.

The final dollar amount of the Liquidated Savings will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created.

Payment shall be made to the Contractor on a progress estimate after final acceptance in accordance with **Section 5** of the **Standard Specifications**.

Example:

- 1) Contract days allowed = 200
- 2) Days required to complete project = 180
- 3) Days to receive an adjustment = 20
- 4) \$ Shown in Contract for early completion = \$2,000 day
- 5) Progress estimate reflects 20 days x \$2,000 = \$40,000  
In liquidated savings

If time negotiations for unforeseen conditions, extra work and weather days are in progress with the Contractor after project final acceptance, payment shall be based on the PA's documented days until a settlement is agreed upon with the Contractor.

Example:

- 1) Contract days allowed = 200
- 2) Days required to complete project = 200
- 3) Days to receive an adjustment = 0
- 4) Negotiation (time extension)
- 5) Project Administrator Records = 30 days
- 6) Contractor Claims = 60 days
- 7) \$ Shown in Contract for early completion = \$2,000 day
- 8) Progress estimate reflects 30 days x \$2,000 = \$60,000  
Until an agreement is reached

## 11.8 DESIGN BUILD CONTRACTS

### **11.8.1 General**

This section summarizes the legal documentation for processing the Final Estimates Package on a Design-Build project. It is not the intent of these procedures to supersede the Contract Documents, but to enhance the process of the Final Estimates Package submittal. The documents required to close out a final estimate will vary from contract to contract. It is the responsibility of the Oversight CEI/Construction Project Manager (PM) to insure that the Design-Build CEI complies with the Contract Documents.

### **11.8.2 Submittals**

The Design Build CEI Firm will prepare and certify the Final Estimate Package with the Oversight CEI/PM monitoring the process. Records will be scanned into the Department's Construction Document Management System (CDMS). These documents and requirements can be viewed on our Construction website.

<http://cosharepoint.dot.state.fl.us/sites/BSSO/information/projects/EDMS/default.aspx>

The Design Build CEI Firm will prepare and submit to the Project Manager a Job Guide Schedule (JGS) using the Laboratory Information Management System (LIMS), 15-21 working days prior to commencement of Construction. Update the Job Guide Schedule in LIMS and submit it to the PM prior to each monthly progress estimate. The Department may not authorize payment of any progress estimate not accompanied by an up-to-date Job Guide Schedule. Maintain the Job Guide Schedule in LIMS throughout the project including the quantity placed since the previous submittal, and any additional materials placed. Do not commence work activities that require testing until the Job Guide Schedule has been reviewed and accepted by the PM. At final acceptance, submit a Final Job Guide Schedule that includes all materials used on the project in the same format as the monthly reports.

The Final Estimate Certification and **Summary Sheets Computation Pay Item Book Form No. 700-050-10** shall be bound in a folder or loose leaf binder with the front cover showing the Financial Project ID Number, name of the project, and county. The Final Estimate Certification and **Summary Sheet** shall show the Original Lump Sum amount with each adjustment, additions or deletions identified on a separate line (Supplemental Agreements Numbers and any adjustments as specified in **Section 9 of the Contract Specification**). A Final Lump Sum amount with required signatures will be shown. Federal Highway Administration (FHWA) has agreed to accept this Final Estimate Certification and **Summary Sheet** in place of the required overruns and underruns explanations. On all Federal Aid Participation Contracts, a copy of the Final Estimate Certification and **Summary Sheet** will be submitted to the FHWA Office by the District Final Estimate Office (DFEO).

### 11.8.3 Invoices & Payment

The PM shall review and approve the pay out schedule (schedule of values) to avoid the “front loading” of payments and confirm that unit prices are reasonable for the work performed. The Contractor will prepare and certify a monthly progress Invoice no later than twelve o’clock noon Monday, after the estimate cut-off or as directed by the PM in accordance with **Section 9** in the **Special Provision** for each project in the contract. This will be submitted to the Oversight CEI/PM for approval and processing according to the time frame specified by the Contract Documents. A monthly progress invoice will be submitted by the Contractor based on the completion or percent completion of major, well-defined tasks as defined in the approved Schedule of Values, (including approved delivery of certain materials) in accordance with **Section 9 of the Specifications** also, any adjustments (as shown in **Section 9, Specifications**) etc., shall be reflected on the current estimate.

The PM will make approximate monthly/progress invoice payments, and the Department will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The PM will not process any estimate for pay until the Contractor’s monthly progress invoice is received and approved with the required certification of payment to Subcontractors included.

**Note:** Certification of Quantities for Maintenance of Traffic items, Painted Pavement marking items, Thermoplastic Traffic Stripe and Marking Items and Permanent Tape Stripes and Markings are not required on Design Build Projects. For Certification Initial Retro Reflectivity reading requirements see **Section 6.4.2** in **Chapter 6** of the **Preparation and Documentation Manual**.

### 11.8.4 Pay Adjustments

Unit Price Adjustments, as required by **Section 9 of the Specifications**, will be determined using the six-month State wide pay item averages “Weighted Averages”. The dates will be the six months prior to the letting date for the Contract. These adjustments will be made on the monthly estimates, the month that they occur. The Oversight CEI/PM should insure that the Design Build CEI data is correct as submitted. The Contractor will certify the number of gallons of fuel (gasoline and diesel), and bituminous material used on this Contract during the period represented by each invoice. The PM will review the gallons generated on the spreadsheet and the Contractor invoice(s) for comparison.

Documentation for these adjustments shall be submitted with each monthly progress invoice and included in the Final Estimate Submittal Package.

Note: See LS Quality Adjustments items examples in section 11.9.4

### **11.8.5 Retainage**

Retainage withheld shall be in accordance with the ***Design Build Specifications*** at the following link: <ftp://ftp.dot.state.fl.us/LTS/CO/Specifications/DesignBuild/Jan11/1-11DBBoilerplate-10-20-10.pdf>.

### **11.8.6 Fuel Adjustments**

On Contracts with an original Contract time in excess of 120 calendar days, the Department will make fuel adjustments on each applicable progress estimate to reflect increase and decreases in the price of gasoline and diesel from those in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments for these fuels will be made only when the current fuel price (CFP) varies by more than 5% from the price prevailing in the month when bids were received (Base Fuel Price - BFP), and then only on the portion that exceeds 5%. The Department will provide an application for fuel adjustment that will calculate and print gallons of gasoline and/or diesel for the items that these factors represent. Effective on Contracts let in January 2007 and forward, the new list of pay items receiving a fuel adjustment can be found on the Construction website. The fuel amounts to be paid is generated from the worksheet by the contractor and posted on the Files Transfer Protocol (FTP) Site with each progress estimate. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the fuel index for the month the Contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at <http://www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm>. The Contractor shall enter quantities on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of gasoline and/or diesel on the Certified Invoice and attach the worksheet to the invoice. The PM shall review and reconcile any differences on this invoice before processing for payment.

### 11.8.7 Bituminous Adjustment

On Contracts with an Original Contract Time of more than 365 calendar days or more than 5,000 tons [5,000 metric tons] of asphalt concrete, the Department will adjust the bid unit price for bituminous material Asphalt Content or Polymer PG76-22, excluding cutback and emulsified asphalt to reflect increases or decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received. Polymer adjustments will be in effect on Contracts let January 2007 and forward. The ***Contractor's Cert of Quantities - Asphalt & Bituminous Material - Conventional Projects, Form No. 700-050-66*** will be revised and posted on the website shown below. The Contractor will not be given the option of accepting or rejecting this adjustment. Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only on the portion that exceeds 5%. The Department will provide an application for bituminous adjustment that will calculate and print gallons of bituminous material. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the API index for the month the contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at <http://www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm>. The Contractor shall enter quantities of asphalt placed and accepted on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of bituminous material Asphalt Content or Polymer on the Certified Invoice and attach the worksheet to the invoice. The PM shall review and reconcile any differences on this invoice before processing for payment.

**Note:** On renewable push button contracts, where the renewable contract is longer than 365 days, the Department will adjust the bid unit price for the bituminous material.

### 11.8.8 Shop Drawings

An approved set of shop drawings if applicable will be required. Scanning the shop drawing will be in accordance with CDMS requirements.

### 11.8.9 Final Signed and Sealed “As-Built” Plans

As the project progresses, the Design Build CEI Firm shall update the final signed and sealed “**As-Built**” Plans. The procedures set forth in ***Chapter 4, Final “As-Built” Plans*** of this ***Manual*** are to be utilized in the preparation for completing the set of final plans for submittal with the Final Estimates Package. At the close out of the Final Estimate the Districts will

send the Final Set of **As-Built Plans** to Image API located in Tallahassee, Florida to be scanned and indexed. A list of exceptions will be produced for those sheets with indexing and quality problems. It will be the responsibility of the DFEO to clarify with Image API how those sheets should be indexed and corrected. Within ten (10) business days the documents should be available electronically.

- (A) 1 hardcopy set of 11"x 17" signed and sealed as-built plans.
- (B) 1 signed and sealed copy of the as-built Bridge Load Rating.  
(depend on type of project).
- (C) A set of final CADD files that are to current CADD Standards on CD.

**Note:** For Design Build Projects the Designer is not required to provide quantities with matrixes in the plans. If the original quantities are provided with the matrix the final amount is not required to be entered.

## 11.9 LUMP SUM CONTRACTS

### 11.9.1 General

Documents required to close out a final estimate will vary from contract to contract. It is the responsibility of the PA and the District Final Estimate Manager (DFEM) to determine that all required documents are complete and accompany the final estimate in accordance with the Contract and Specifications on Lump Sum Projects.

If conditions changes from the Plans and Extra and Unforeseen Work are involved, the Contractor along with the Department must negotiate and resolved those issues using Supplemental Agreements (SA) or Work Orders.

### 11.9.2 Submittals

The PA will prepare and certify the Final Estimate Package with the PM monitoring the process if applicable. Records will be scanned into the Department's Construction Document Management System (CDMS). These documents that require scanning can be viewed on the Construction website.

<http://cosharepoint.dot.state.fl.us/sites/BSSO/information/projects/EDMS/default.aspx>

The Contractor will prepare and submit a project specific list of material items and quantities, 21 calendar days prior to beginning of construction, to be used to determine the material sampling and testing frequencies in the same format shown in the Department's ***Sampling, Testing, and Reporting Guide***. These quantities will not be considered payment quantities. At final acceptance, submit a final Job Guide Schedule that includes all materials used on the project in the same format as the monthly reports. Payment shall be made in accordance with Project and Payment specific Contract Documents.

The Final Estimate Certification and ***Summary Sheets*** shall be bound in a folder or loose leaf binder with the front cover showing the Financial Project ID Number, Name of the project, and county. The Final Estimate Certification and ***Summary Sheet*** shall show the Original Lump Sum amount with each adjustment, additions or deletions identified on a separate line (SA no's and any adjustments as specified in ***Section 9 of the Contract Specifications***). A Final Lump Sum amount with required signatures will be shown. FHWA has agreed to accept this Final Estimate Certification and ***Summary Sheets*** in place of the required overruns and underruns explanations. On all Federal Aid Participation Contracts, a copy of the Final Estimate Certification and ***Summary Sheet*** will be submitted to the FHWA Office by the District Final Estimate Office (DFEO).

**Note:** Construction Inspection Personnel should not be required to document quantities except for asphalt and other items subject to pay adjustments as defined in the ***Lump Sum Guidelines*** and can be addressed at the following link.  
<http://www.dot.state.fl.us/construction/LumpSum/LumpSumMain.shtm>

### **11.9.3 Invoices and Payment**

The Contractor will prepare and certify a monthly progress invoice no later than twelve o'clock noon Monday, after the estimate cut-off or as directed by the PA/PM in accordance with ***Section 9 of the Specifications***. This will be submitted to the PA/PM for approval and processing according to the time frame specified by the Contract Documents. A monthly progress invoice will be submitted by the Contractor based on the completion or percent completion of major, well-defined tasks as defined in the approved pay out schedule also, any adjustments (as shown in ***Section 9 of the Specifications***), etc., shall be reflected on the current estimate.

The PA will make approximate monthly/progress invoice payments, and the Department will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The PA will not process any estimate for pay until the Contractor monthly progress invoice is received and approved with the required certification of payment to subcontractors included.

**Note:** Certification of Quantities for Maintenance of Traffic items and Painted Pavement Marking items, Thermoplastic Traffic Stripes and Markings Items, Permanent Tape Stripes and Markings are not required on Lump Sum Projects. For Certification Initial Retro Reflectivity reading requirements see **Section 6.4.2** in **Chapter 6** of the *Preparation and Documentation Manual*.

#### **11.9.4 Pay Adjustments**

The Contractor will certify the number of gallons of fuel (gasoline and diesel), and bituminous material used on this Contract during the period represented by each invoice. The PA will review the gallons generated on the spreadsheet and the Contractor invoice(s) for comparison.

Documentations for these adjustments shall be submitted with each monthly progress invoice and included in the Final Estimate Submittal Package.

Once the PA has approved the progress invoice, payment shall be made, less the amount of retainage withheld per provisions in the Contract. The Department shall base payments on the total value of the work the Contractor performs. Monthly/Progress payments shall be approximate only, and shall be subject to decrease (overpayments) or increase (underpayments). Partial Payments less than \$5000.00 will not be processed. The PA will adjust the lump sum price on all failures. This adjustment will be shown as a line item adjustment to the pay estimate on which it is to be paid. Appropriate remarks will be made when the adjustments are created. All tables listed in **Section 9** of the **Specifications** are to be completed with a predetermined unit price if these specific areas are address in the Contract. If no prices are shown in the Contract specifying that adjustment will be made, then contact the District Specification Engineer to determined if this was an oversight. If so, the District Specification Engineer should supply this information, if not, the unit price will be determined based on Statewide Averages. This will require a Work Order to amend the Contract. The PA will document that all adjustments are correct and have met the criteria as set forth in the Contract. Documentation of all failures shall accompany the Final Estimate Submittal Package. (**See Figures 11-1 thru 11-3 for deficiency area evaluation [for an example of a multi layer deficiency](#) and [Figure 11-4 for a single layer deficiency](#)**).

Deficiency Adjustment  
Table 9-1

Item Description	Unit	Unit Prices
Optional Base/Superpave	SY	\$8.78
Superpave (Traffic level B)	Ton	\$48.62
Superpave ITraffic level C)	Ton	\$52.99
Asph. Conc. Friction Course (FC 6)	Ton	\$56.79

Concrete failures will be adjusted in accordance with the current **Contract Document Specifications**. Asphalt Overbuild: The Project Administrator will ensure that the average spread rate does not exceed 105% of the specified spread rate. See the following examples below.

### Asphalt Overbuild Adjustment

Table 9-2

Item Description	Unit	Unit Prices
Superpave (Traffic level B)	Ton	\$48.62
Superpave (Traffic level C)	Ton	\$52.99

#### Example # 1

In this example; overbuild is less than the target. Plan Thickness = 0.33"

Design Mix No.: XXXXXX

$G_{mm} = 2.521$

$2.521 \times 43.3 \times 0.33 = 36.02 \text{ Lbs/SY}$

Target = 36 Lbs/SY

Based on this Design Mix, the

Target Spread Rate is 36 Lbs/SY

Item (Superpave SP 12.5) Traffic Level B  
Original Quantity = 323.3 Tons  
Final = 300.0 Tons  
Plan Area = 19,690 SY  
Final Area = 20,000 SY  
Plan Spread Rate = 33 Lbs/SY  
Actual Spread Rate = 30.00 Lbs/SY  
Final Pay Limited to 105%  
 $36 \text{ Lbs/SY} \times 1.05 = 37.80 \text{ Lbs/SY}$   
 $323.3 - 300 = -23.3 \text{ Tons}$  (This will be a negative, since the material is less than the Target Spread Rate.)

However, per **Specifications**, the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-2.

$30 \div 36 = 0.8333 = 0.83$  (0.83 will be multiplied by the unit price listed in table 9-2)

$\$ 48.62 \times 0.83 = \$ 40.35$  (the adjusted unit price)

$23.3 \times \$ 40.35 = \$ 940.16$  (The quantity of the material placed is less than the specified spread rate (target). The material in question is 23.3 Tons. A line item adjustment will need to be made showing 1 LS @ - \$ 940.16, which is a negative adjustment).

### Example # 2

In this example; overbuild is more than target.

Item (Superpave SP 12.5) Traffic Level B	Plan Thickness = 1.77"
Original Quantity = 749.3 Tons	Design Mix No.: XXXXXX
Final = 805.5 Tons	$G_{mm} = 2.521$
Plan Area = 8,482 SY	$2.521 \times 43.3 \times 1.77 = 193.21$ Lbs/SY
Final Area = 8,300 SY	Target = 193 Lbs/SY
Plan Spread Rate = 177 Lbs/SY	Based on this Design Mix, the
Actual Spread Rate = 194.09 Lbs/SY	Target Spread Rate is 193 Lbs/SY

Final pay limited to 105%

$193 \text{ Lbs/SY} \times 1.05 = 202.65 \text{ Lbs/SY}$

$805.5 \text{ Tons} - 749.3 \text{ Tons} = + 56.2 \text{ Tons}$  (here, the average spread rate exceeded the design spread rate)

Per Specifications, the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-2.

$194.09 \div 193 = 1.0056 = 1.01$  (1.01 will be multiplied by the unit price listed in table 9-2)

$\$ 48.62 \times 1.01 = \$ 49.11$  (the adjusted unit price)

$56.2 \times \$49.11 = \$ 2,759.98$  (The quantity of the material placed is greater than the specified spread rate (target). The material in question is 56.2 Tons. A line item adjustment will need to be made showing 1 LS @ + \$2,759.98, which is a positive adjustment.)

### Example # 3

In this example; overbuild is more than 105%.

Item (Superpave SP 12.5) Traffic Level B	Plan Thickness = 0.44"
Original Quantity = 160.60 Tons	Design Mix No.: XXXXXX
Final = 193.50	$G_{mm} = 2.521$
Plan Area = 7,300 SY	$2.521 \times 43.3 \times 0.44 = 48.03$
Final Area = 7,400 SY	Lbs/SY
Plan Spread Rate = 44 Lbs/SY	Target = 48 Lbs/SY
	Based on this Design Mix, the
	Target Spread Rate is 48 Lbs/SY

Actual Spread rate = 52.30 Lbs/SY

Final pay limited to 105%

48 Lbs/SY X 1.05 = 50.40 Lbs/SY

(7,400 SY X 50.40 Lbs/SY) = 186.48 = 186.5 Tons Maximum pay  
2000 Lbs/Ton

186.5.0 – 160.60 = + 25.9 Tons

Per **Specifications**, the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-2.

$52.30 \div 48 = 1.0896 = 1.09$  (Per Specifications, we can't go over 105%. 1.09 is greater than 1.05, so 1.05 will be multiplied by the unit price listed in table 9-2)

\$ 48.62 X 1.05 = \$ 51.05 (the adjusted unit price)

$25.9 \times \$ 51.05 = \$ 1,322.20$  (The quantity of the material placed is greater than the specified spread rate (target). The material in question is 25.9 Tons. A line item adjustment will need to be made showing 1 LS @ + \$ 1,322.20, which is a positive adjustment)

Foundations such as piling and Drilled Shafts will be adjusted to reflect the actual quantities needed and approved to complete these items. Additions or deletions will be determined from the pile/drilled shaft elevations shown in the **Contract Document**.

## Foundation Adjustment

Table 9-3

Item Description	Unit	Unit Prices
Concrete Piling Prestressed (18")	LF	\$45.25
Concrete Drilled Shafts (30")	LF	\$80.33
Concrete Piling Prestressed (36")	LF	\$69.33

Quality adjustments: such as, the composite pay factors for asphalt will be adjusted base on the Unit Price provided in the Quality table 9-4. (See example of a Composite Pay Factor below).

## Quality Adjustment

Table 9-4

Item Description	Unit	Unit Prices
Superpave (Traffic Level B)	Ton	\$48.62
Superpave (Traffic level C)	Ton	\$52.99
Friction Course (FC 6)	Ton	\$56.79

#### Example: #4

Lot = 4,000 tons  
Composite Pay Factor = 105% for lot #2

4,000 tons X 1.05 = 4,200 tons

4,200 – 4,000 = 200 tons

200 Tons x \$48.62 = \$9,724.00 will be the adjustment to the Lump Sum price.

All adjustments will be entered on the Final Estimates Certification and **Summary Sheet** as a line item adjustment.

**Note:** Emphasis needs to be made on the Contractors responsibility of providing accurate reports (SY/; overlapping joints; Show exact widths being placed and correct tonnage. These areas are very important in the evaluation of the spread.

If **Section 330, Smoothness Specifications**, is listed in the **Contract Document**, an adjustment for smoothness would be made based on the criteria specified in the Contract Documents.

#### 11.9.5 Adjustments due to an increase, Decrease or Alteration in the work

**Adjustments Less than \$ 5,000.00:** If it is determined by the Engineer that an item is not needed on a project, such as a pipe culvert, an inlet, a manhole, a mitered end section, etc., and the item was shown in the plans originally, then a negative adjustment will be made based on the actual invoice price for that item and the Contractor will retain ownership. (**See Section 9 of the Specifications**)

Adjustments Greater than \$ 5,000.00: If the adjustment exceeds \$ 5,000.00, which is considered to be a significant change, then the adjustment will be processed through a

Supplemental Agreement or Work Order based on a negotiated amount for time and money. (**See Section 4-3 of the *Specifications***).

### **11.9.6 Retainage**

The Department will withhold retainage of 10% of the amount due on the current estimate as retainage when the percent of allowable Contract Time used exceeds the percent of the Contract amount earned by more than 15%. Retainage will not be withheld until 75% of the Contract Time has elapsed. This amount will not be released until payment of the Final Estimate (**Section 9 of the *Specifications***).

### **11.9.7 Fuel Adjustments**

On Contracts with an original Contract Time in excess of 120 calendar days, the Department will make fuel adjustments on each applicable progress estimate to reflect increases and decreases in the price of gasoline and diesel from those in effect during the month in which bids were received. Effective on Contracts let in January 2007 and forward, the new list of pay items receiving a fuel adjustment can be found on the Construction website. The fuel amounts to be paid is generated from the worksheet and posted on the Files Transfer Protocol (FTP) Site with each progress estimate. The Contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments for these fuels will be made only when the current fuel price (CFP) varies by more than 5% from the price prevailing in the month when bids were received (BFP), and then only on the portion that exceeds 5%. The Department will provide an application for fuel adjustment that will calculate and print gallons of gasoline and/or diesel for the items that these factors represent. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the fuel index for the month the Contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at <http://www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm>. The Contractor shall enter quantities on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of gasoline and/or diesel on the Certified Invoice and attach the worksheet to the invoice. The PA shall review the invoice prior to payment.

### **11.9.8 Bituminous Adjustment**

A bituminous adjustment shall be required on contracts having an Original Contract Time of more than 365 calendar days or more than 5000 tons [5000 metric tons] of asphalt concrete base on the Schedule of Values. The Department will adjust the bid price for bituminous material Asphalt Content or Polymer PG76-22, excluding cutback and

emulsified asphalt to reflect increases and decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received.

Polymer adjustments will be in effect on Contracts let January 2007 and forward. The

**Contractor's Cert of Quantities Asphalt & Bituminous Material Conventional Projects, Form Number 700-050-66** will be revised and posted on the website below.

The Contractor will not be given the option of accepting or rejecting this adjustment.

Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only the portion that exceeds 5%. The Department will provide an application for bituminous adjustment that will calculate and print gallons of bituminous material. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the API index for the month the Contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at

<http://www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm>. The Contractor shall enter quantities of asphalt placed and accepted on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of bituminous material on the Certified Invoice and attach the worksheet to the invoice. The PA shall review the invoice prior to payment.

### **11.9.9 Final Signed and Sealed "As-Built" Plans**

The PA will update the Final Signed and Sealed "**As-Built" Plans**" as the project progresses. A complete set of Final Signed and Sealed "As-Built" will accompany the Final Estimates Package at the close out of the Final Estimate the Districts will send the Final Set of "**As-Built" Plans**" to Image API located in Tallahassee, Florida to be scanned and indexed. A list of exceptions will be produced for those sheets with indexing and quality problems. It will be the responsibility of the DFEO to clarify with Image API on how those sheets should be indexed and corrected. Within ten (10) business days the documents should be available electronically.

- (A) 1 hardcopy set of 11"x 17" signed and sealed as-built plans.
- (B) 1 signed and sealed copy of the as-built Bridge Load Rating.  
(depend on type of project).
- (C) A set of final CADD files that are to current CADD Standards on CD.

Refer to **Chapter 4** of this **Manual** for **Final "As-Built" Plan** requirements.

**Note:** For Lump Sum Projects the Designer is not required to provide quantities with

Matrixes in the plans. If the original quantities are provided with the Matrix the final amount is not required to be entered.

### **11.9.10 Shop Drawings**

An approved set of shop drawings if applicable will be required. Scanning the shop drawing will be in accordance with CDMS requirements.

## **11.10 CONTRACTS WITH INCENTIVE/DISINCENTIVE**

The Incentive/Disincentive (I/D) concept is designed to reduce the overall Contract Time by giving the Contractor an incentive for every day that the Contract is completed early and a disincentive for everyday that the Contract is completed late.

The ***Daily Work Report and Diary in Site Manager*** is the supporting documentation for payment as outlined in the ***CPAM, Section 5.1***. Each set of the above project form will show the following statements: 1) Today is the first day or the beginning milestone day of the Incentive/Disincentive phase of this Contract; 2) Today is the last day of the incentive/disincentive phase of this Contract. The final dollar amount of the incentive/disincentive will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created.

### **11.11 Streamline Contracts (ONLY)**

The goal of Streamline Contracts is to simplify administration along with reducing many of the final estimates requirements. There should be no reduction in inspection only sampling, testing and verification will be done at a minimum frequency involving these areas 120, 125, 160, 200, and 346 in accordance with the Contract. For a Lump Sum Streamline Contract the project must be under \$2,000,000 with less than 2,000 tons of asphalt.

#### **11.11.1 Invoices and Payment**

For the Contractors to receive payment for the work completed during the month (including delivery of certain material) they must provide to the Engineer a certified monthly invoice. The Contractor must make a request for payment no later than 12 O'clock noon after the estimate cutoff date in accordance with sub-article 9-5.1 of the Contract.

#### **11.11.2 Pay Adjustments**

The only two items, subject to receive adjustments are Overbuild & Foundations. Adjustment in the Lump Sum payment will be made for actual quantities installed of asphalt overbuild, as additions or deletions for the total project quantity determined from the asphalt overbuild quantity shown in the Contract Documents. The upward tonnage shall not exceed 5% of the asphalt overbuild quantity shown in the Contract Documents. The Engineer will base all adjustments in payment on the unit prices shown in Table 9-2 of the Contract. The following examples for overbuild adjustments are provided below.

## **Asphalt Overbuild Adjustment**

Table 9-2

Item Description	Unit	Unit Prices
Superpave (Traffic Level B)	Ton	\$ 48.62
Superpave (Traffic Level C)	Ton	\$ 52.99

### **Example # 1**

**In this example; overbuild is less than what is in the Contract.**

Item (Superpave SP 12.5) Traffic Level B

Original Quantity = 323.3 Tons

Final = 300.0 Tons

Final Pay Limited to 105%

$323.3 \times 1.05 = 339.5$  Tons (maximum Tonnage that can be paid)

However, 300.0 Tons were placed

$300 - 323.3 = -23.3$  Tons (This will be a negative, since the material is less than what's in the Contract).

$\$ 48.62 \times -23.3 = -\$1,132.85$  (The quantity of the material placed is less than the specified Tonnage in the Contract). A line item adjustment will need to be made showing 1 LS @ - \$ 1,132.85, which is a negative adjustment).

### **Example # 2**

**In this example; overbuild is more than what is in the Contract.**

Item (Superpave SP 12.5) Traffic Level B

Original Quantity = 749.3 Tons

Final = 780.1 Tons

Final Pay Limited to 105%

$749.3 \text{ Tons} \times 1.05 = 786.8$  Tons (maximum Tonnage that can be paid)

However, 780.1 Tons were placed

$780.1 - 749.3 = + 30.8$  Tons (over the Contract Tonnage - we are still under the 5%)  
 $48.62 \times 30.8 = + \$ 1,497.50$  (The quantity of the material placed is greater than what's in the Contract). It's within the 5% limit. A line item adjustment will need to be made showing 1 LS @ + \$1,497.50, which is a positive adjustment.)

### **Example # 3**

**In this example; overbuild is more than 105%.**

Item (Superpave SP 12.5) Traffic Level B

Original Quantity = 160.60 Tons

Final = 193.50

Final pay limited to 105%

$160.60 \text{ Tons} \times 1.05 = 168.6 \text{ Tons}$  (maximum Tons that we can be paid)

However, 193.5 Tons were placed

$168.6 - 160.60 = + 8$  Tons (over the Contract Tonnage – here we are at the 5% limit)

$\$ 48.62 \times 8 \text{ Tons} = \$ 388.96$  (The quantity of the material placed is greater than what's in the Contract). It also exceeds the 5% limit. The upward Tonnage adjustment, in this example, is limited to the maximum payable). A line item adjustment will need to be made showing 1 LS @ + \$ 388.96, which is a positive adjustment)

For foundations the Lump Sum payment may increase or decrease. Payment will be based on the actual quantity installed of piling and drilled shaft. All adjustments will be applied to the unit prices shown in Table 9-3 of the Contract.

Also, for any other type material/item that the Contractor may fail to construct in compliance with the Contract requirements will result in; reconstruction to acceptable tolerances at no cost to the Department; or acceptance at no pay at the Engineer's discretion. For acceptance at no pay items other than the two items mentioned above, you will need to use the unit prices as determined using the Six Month Moving Statewide Averages. This date will be six months prior to the letting date.

**Note:** There will be No Fuel, Bituminous, Composite Pay Factors or Thickness/Spread Rate adjustments on these Contracts.

### **11.11.3 Final Acceptance**

Upon final acceptance the PA will need to email the Contractor a Reminder Notice Letter and forward a copy to the District Final Estimates Office (DFEO) for Streamline Contract Closeout Process. This is a reminder that the final invoice, once approved by the PA will not be paid until the requirements of Section 9-8 of the Contract are met and approved.

The submittal of the final invoice will be handled by the DFEO. The Contractor needs to forward all required documents to the DFEO.

#### **11.11.4 Submittal**

In preparing the Final Estimates Package, the PA needs to show all modifications made to the original LS amount on the certification sheet. This Package will be sent to the DFEO.

**Note:** For additional information see the Final Estimates Guidelines on Streamline Contracts at the following link.

<http://www.dot.state.fl.us/construction/CONSTADM/Guidelist/FinalEst/FEGuidelist.shtm>

#### **11.12 LIST OF FIGURES FOLLOWING THIS CHAPTER**

Figure 11-1 thru 11-3.....	<u>Example of Lump Sum Spread rate Multi Layers</u>
<u>Figure 11-4.....</u>	<u>Example of Lump Sum Spread Rate Single Layer</u>
Figure 11- <u>45</u> .....	Example of Lane Rental Site Source Record

Figure 11-1

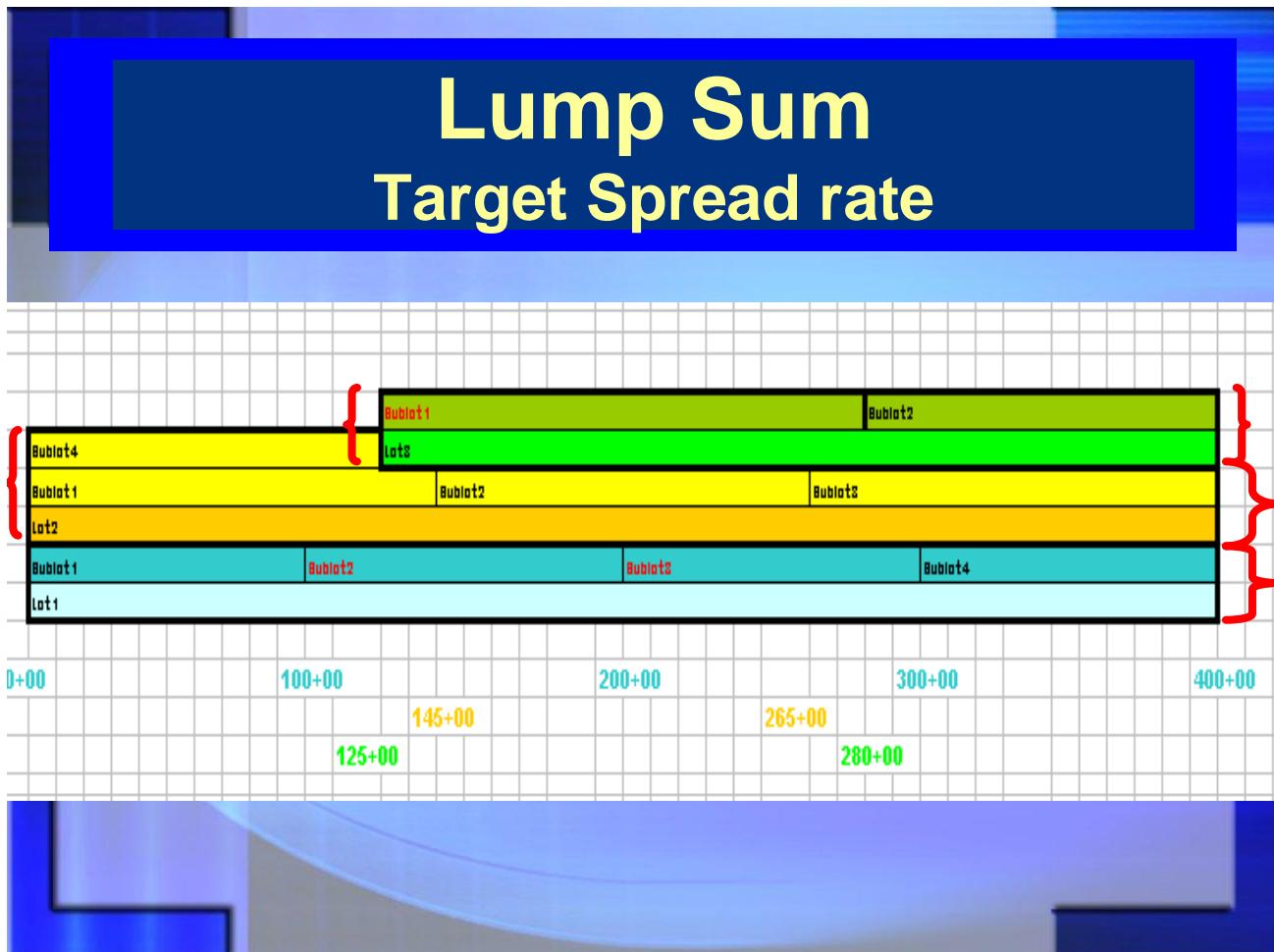


Figure 11-2



Spreadrates	Target 165 #/sy	.5% rate = 157 #/sy
	Total = 4.5"	+5% rate = 173 #/sy
	<b>Total spread = 495 #/sy</b>	
		.5% total = 470 #/sy
		+5% total = 520 #/sy
	Sublot 1	Sublot 2
Lot 1	160	150
Lot 2	170	170
Lot 3	145	165
<b>Deficiency Adjustments</b>		
Stations	Total Spreadrate	
0+00 to 100+00	160+170+170 =	500
100+00 to 125+00	150+170+170 =	490
125+00 to 145+00	150+170+145 =	465
145+00 to 200+00	150+170+145 =	465
200+00 to 265+00	155+170+145 =	470
265+00 to 280+00	155+170+145 =	470
280+00 to 300+00	155+170+165 =	490
300+00 to 400+00	170+170+165 =	505

Figure 11-3

## Lump Sum Target Spread rate

- Example
  - $125+00 - 200+00 = 7,500 \text{ Ft.}$
  - $7,500 \text{ Ft.} \times 12 \text{ Ft.} = 10,000 \text{ S.Y.}$
  - $(10,000 \text{ SY} \times 30 \text{ #/SY}) \div 2,000 \text{ #/Ton} = 150 \text{ Ton}$
  - $150 \times \$46.59 \text{ (from table 9-1)} = \$6,988.50$
- Line Item Adjustment
  - New LS Line Item with a unit price of – \$6,988.50

FIGURE 11-4

(SINGLE LAYER SCENARIO)  
 LOT 3 SUBLLOT 4 SPREAD ANALYSIS

Lot	Date Paved	Shift	Sub Lot	Truck Load#	Intended Use	Density	Lane	Lift # of #	Start Paving At 2ta.	End Paving At 2ta.	Length ft	Width ft	Avg Paved SY	Cty TN	Individual Lift Thickness in.	Actual Spread Rate Lbs/SY	Target Spread Rate Lbs/SY	Penalty Tons	Adjusted Unit Price \$	Penalty Amount	
3	8/16/11	Night	4	8-15	SP-TL-C	Y	R1	1	1	479+50	481+50	220	14	542	45.98	2.5	268.88	275			
3	8/16/11	Night	4	18-25	SP-TL-C	Y	R1	1	1	481+50	484+50	300	14	487	57.88	2.5	247.00	275			
3	8/16/11	Night	4	18-25	SP-TL-C	Y	R1	1	1	484+50	489+20	470	12	827	77.45	2.5	247.00	275			
3	8/16/11	Night	4	18-25	SP-TL-C	Y	R1	1	1	489+20	493+00	380	14	591	73.07	2.5	247.00	275			
3	8/16/11	Night	4	28-35	SP-TL-C	Y	R1	1	1	493+00	496+50	230	14	358	45.27	2.5	234.31	275			
3	8/16/11	Night	4	28-35	SP-TL-C	Y	R1	1	1	496+50	505+00	970	12	1293	163.88	2.5	234.31	275			
3	8/16/11	Night	4	28-35	SP-TL-C	Y	R1	1	1	505+00	515+50	1050	12	1400	177.76	2.5	234.31	275			
3	8/16/11	Night	4	38-45	SP-TL-C	Y	R1	1	1	515+50	517+00	150	14	233	29.83	2.5	234.31	275			
3	8/16/11	Night	4	38-45	SP-TL-C	Y	R1	1	1	517+00	521+00	420	14	853	91.35	2.5	279.79	275			
3	8/16/11	Night	4	48-53	SP-TL-C	Y	R1	1	1	521+20	525+00	380	12	507	70.84	2.5	279.45	275			
Truncated Totals =													8471	832.70		247.00	275	58.2	X \$83.70	= \$4,871.34	

Proportional Ratio = 257 Lbs/SY + 275 Lbs/SY = 0.93

Adjusted Unit Price = Pro-Ratio X Contract Unit Price  
 - 0.93 X \$ 90.00  
 - \$ 83.70

Mix Design No. is 06-6485B  
 Target Spread Rate =  $G_{av} \times 43.3 \text{ Lbs/SY/in.} \times \text{Thickness}$   
 -  $2.540 \times 43.3 \text{ Lbs/SY/in.} \times 2.5$   
 -  $275 \text{ Lbs/SY}$

Sub-Lot Spread

Maximum Spread Rate @  
 105% of Target =  $1.05 \times 275 = 288.75 \text{ Lbs/SY}$   
 Minimum Spread Rate @  
 95% of Target =  $0.95 \times 275 = 261.25 \text{ Lbs/SY}$

$257.0 - 275.0 = - 18 \text{ Lbs}$   
 $(- 18.0 \text{ Lbs} \times 6,471 \text{ SY}) = - 58.2 \text{ Tons}$   
 $2000 \text{ Lbs/Ton}$   
 $- 58.2 \text{ Tons} \times \$83.70 = - \$ 4,871.34$

Per Specifications:

9-2.2.2 Asphalt Design Thickness/Spread Rate:

The Engineer will determine if the material of the roadway pavement is acceptable to remain in place at full pay, remain in place at reduced pay or corrected at no cost to the Department. Final disposition of the finished roadway pavement will be based upon the comparison between the design spread rate specified in the Contract Documents and the combined value of the average spread rate of each sublot at the same area (including FC-6, but excluding FC-5). The acceptable tolerance of the combined spread rate evaluation of the roadway pavement is  $\pm 5\%$ . Reductions in pay will be determined per sublot by applying a proportional reduction in payment for the material in question, based on a ratio of the average spread rate for the sublot to the design spread rate, which will then be applied using the unit price(s) as shown in Table 9-1. Any quantity over the designed spread rate specified in the Contract Documents shall not be paid.

**Figure 11- 45**