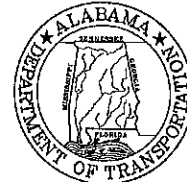




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JOE McINNES  
TRANSPORTATION DIRECTOR

October 13, 2009

Construction Information Memorandum Number 2-2009

TO: ALDOT Division Engineers

FROM: Terry McDuffie, PE *TJ McDuffie BF*  
Construction Engineer

RE: Work Performed and Progress Based Pay Items

Sections 101, 108, 600, 680 and 698 of the 2008 Standard Specifications have recently been modified by special provision. The purpose for the modification is to provide clarity to previously undefined or unclear areas of the current specifications. Generally, the clarifications define the new term Work Performed and provide a mechanism to allow progress based payments to stand on their own and not require a specific sequence of calculations during monthly estimate preparation. Due to the specification changes providing more clarity than change, the special provision should be used to administer active contracts as well as future contracts. The decision to apply these changes to active projects should be based on mutual benefit and agreement between your office and the Contractor.

Form SJ 120 is being modified to reflect the specification modifications and will be automated in the future. The revised form should be used for all active and future contracts administered with this direction.

Supplemental guidance for the recent specification changes is provided as an attachment to this memorandum. The specification changes as well as this memorandum should be shared with the Contractor prior to altering any previously established procedures. It is anticipated that the special provision will become effective in some form in the January 2010 letting unless major issues become apparent. Please notify this office of any suggested modifications or additions to the special provision.

TM/BF

Attachments

pc: G.M. Harper, PE  
Mr. Larry Lockett, PE  
Mr. D.E. Phillips, PE  
Mr. Lamar McDavid  
FHWA  
CIM File

**SUPPLEMENTAL GUIDANCE FOR IMPLEMENTING SPECIFICATION CHANGES REGARDING  
WORK PERFORMED AND PROGRESS BASED PAY ITEMS  
Attachment to Construction Information Memorandum 2-2009**

**PERCENT COMPLETE**

The term percent complete will no longer be used to calculate contractor payments. The term will be used for the reporting of project progress and in the determination of acceptable project progress. The term Percent Complete (PC) will be based on the Adjusted Contract Amount (AC) as defined in 101.01 and has been defined in 108.04(e) as follows. PC should be rounded up to the next whole number.

$$PC = 100 * \left[ \frac{WP + FA}{AC - PBPI} \right]$$

This definition shall be used for all reporting of project progress.  
Unacceptable Progress has been defined in 108.04(e) by the following condition.

**Percent Time Elapsed – Percent Complete > 25%**

Percent Time Elapsed (PT) has been defined in 108.04(e) as follows. PT should be rounded up to the next whole number.

$$PT = 100 * \left[ \frac{\text{Days Charged}}{CT + TE} \right]$$

**Days Charged** = Number of days charged towards the completion of the work.

**CT** = Original Contract time. (Days, Calendar date projects will be converted to calendar days)

**TE** = Number of days of time extension. (Days) (Rounded up to the nearest whole number.)

**WP** = "Work Performed" as defined in Article 101.01. (Dollars, discussed further below)

**PBPI** = Payments for "Progress Based Pay Items" as defined in Article 101.01. (Dollars)

**FA** = Payments for Extra Work paid by Force Account. (Dollars)

*\*\*Please note that the percent complete and thus the determination of satisfactory progress is dependent on the Adjusted Contract Amount which includes PROJECTED construction costs for the project. It is imperative that projected quantities are estimated as completely and accurately as possible.\*\**

**ADJUSTED CONTRACT AMOUNT**

The term Adjusted Contract Amount (AC) has been defined in 101.01. As noted above, its accurate estimation by project personnel is critical.

**WORK PERFORMED (WP) and PROGRESS BASED PAY ITEMS (PBPI)**

The term Work Performed (WP) has been defined in 101.01. As stated, the intent of the definition is to identify the dollar value of physical construction work completed. The term includes payments for adjustments due to increased installation depths (utilities, underdrain, signal pole foundations, etc.). The term is not to include those payments for materials by invoice per specification (additional lime, fertilizer, etc.) and incidental items such as those based on quality of construction including QC/QA

payments, or the other payments listed in the last sentence of the definition (material price adjustments, fuels, stored materials, unused materials). Also excluded are Progress Based Pay Items (PBPI) or those payments and deductions which are based on the progress of construction (mobilization, construction fuel, engineering controls, liquidated damages, progress based incentive/disincentive, etc.). Payments by force account or payments for extra work calculated on a force account basis but paid by supplemental agreement are also not included. The reason for this exclusion is that the tracking of work by force account takes into account construction fuel and other items incidental to the work.

### **EXTENSION OF CONTRACT TIME**

Article 108.09 has been revised to define and clarify the different types of contract time extension. A time extension may be granted based on extra work, overall contract overrun or by approved Contractor requests for time extension. Time extensions for extra work shall be determined when the extra work takes place. A time extension for extra work may be granted by Supplemental Agreement or by using the applicable Form C-19 or C-19A. Forms C-19 and C-19A should not be used when payment for extra work is made by Supplemental Agreement. The form must be completed by the division office and approved by the State Construction Engineer to extend time based on extra work.

Time extension due to contract overrun is based on the following formula. The calculation should be performed monthly and applied if TE is positive. This calculation will be automated by the Construction and Materials Management System in the future.

$$TE = \left[ \frac{WP - EW}{(OC - PBPI)} - 1.0 \right]$$

#### **Where**

**TE** = Number of days of time extension based on overall contract overrun. (Days, rounded up to the nearest whole number.)

**CT** = Original Contract time. (Days)

**WP** = "Work Performed" as defined in Article 101.01. (Dollars)

**EW** = Total Amount of Extra Work paid by Supplemental Agreement (Dollars)

**OC** = Original Contract Amount (Dollars)

**PBPI** = Payments for "Progress Based Pay Items" as define in Article 101.01 (Dollars)

For contracts that have a calendar completion date instead of working days or calendar days, the number of days of extension calculated, "TE", shall be added to the original contract completion date to establish a revised calendar completion date. The days assigned for "CT" shall be the number of calendar days available to the Contractor for performance of the work (from the beginning of contract time charges through the original calendar completion date).

The Contractor may request an extension of contract time. Consideration for such requests will be granted provided the Contractor submits a written request that includes a full description of the circumstances that were beyond the control of the Contractor and could not have been anticipated by the Contractor (abnormal rainfall, material shortages, etc.). The description of circumstances should also state how the circumstances caused delay in the overall work completion date. After review, the division office will submit a completed Form C-19 or C-19A to the State Construction Engineer for

review and approval. If the Contractor disagrees with the determination of time extension by the Engineer, an appeal may be made by the Contractor to the Transportation Director.

### **MOBILIZATION**

The amounts and timing of partial payments for Mobilization are stated in a table in Article 600.04. When more than one project is included in one contract, the amount of payment to be made will be based on the "Work Performed" as defined in Section 101 and amount of the entire contract, not the amount of each individual project. Once the amount of payment is determined, based on the entire contract, this amount will then be prepared for payment on each individual project based on the item quantity breakdown shown on the plans.

### **ENGINEERING CONTROLS**

Partial payments for the item of Engineering Controls is described in Article 680.04 and will be made on monthly estimates with the amount to be paid each month a percentage of the lump sum amount bid. This percentage shall be the same as the percentage of work performed during the estimate period. A partial payment for Engineering Controls will be calculated as follows.

$$P = EC \left[ \frac{WP_{ce} - WP_{pe}}{OC - PBPI} \right]$$

#### **Where**

**P** = Amount of Partial Payment (Dollars)

**EC** = Lump Sum Contract Amount for "Engineering Controls" (Dollars)

**WP<sub>ce</sub>** = "Work Performed" (as defined in Article 101.01) at the time of the current estimate for partial payment. (Dollars)

**WP<sub>pe</sub>** = "Work Performed" (as defined in Article 101.01) at the time of the prior estimate for partial payment. (Dollars)

**OC** = Original Contract Amount (Dollars)

**PBPI** = Payments for "Progress Based Pay Items" as define in Article 101.01 (Dollars)

The decimal value derived by the term " $(WP_{ce} - WP_{pe} / (OC - PBPI))$ ", rounded to the hundredth, will be the decimal amount of the lump sum contract amount for Engineering Controls. WP is the "Work Performed" (as defined in Article 101.01).

When more than one project is included in one contract, the amount of payment to be made will be based on the "Work Performed" as defined in Section 101 and amount of the entire contract, not the amount of each individual project. Once the amount of partial payment is determined, based on the entire contract, this amount will then be prepared for payment on each individual project based on the item quantity breakdown shown on the plans.

When the sum of partial payments is equal to or greater than 90% of the original contract amount for engineering controls the remainder of the lump sum item will be paid. The final quantity for this item will be 1.0. Additional engineering controls required beyond that shown in the contract will be handled as extra work.

## CONSTRUCTION FUEL

Construction Fuel has been broken into two separate payments. These are partial payments based on work performed and cost adjustments based on fuel indices. The cost adjustment is dependent on the calculated partial payment.

Partial Payments - Partial payment for the item of Construction Fuel is described in Article 698.03 and will be made on monthly estimates with the amount to be paid each month a percentage of the lump sum amount bid. This percentage shall be the same as the percentage of work performed during the estimate period. A partial payment for Construction Fuel will be calculated as follows.

$$P = CF \left[ \frac{WP_{ce} - WP_{pe}}{OC - PBPI} \right]$$

### Where

P = Amount of Partial Payment (Dollars)

CF = Lump Sum Contract Amount for "Construction Fuel" (Dollars)

WP<sub>ce</sub> = "Work Performed" (as defined in Article 101.01) at the time of the current estimate for partial payment. (Dollars)

WP<sub>pe</sub> = "Work Performed" (as defined in Article 101.01) at the time of the prior estimate for partial payment. (Dollars)

OC = Original Contract Amount (Dollars)

PBPI = Payments for "Progress Based Pay Items" as define in Article 101.01 (Dollars)

The decimal value derived by the term "(WP<sub>ce</sub> - WP<sub>pe</sub> / (OC - PBPI))", rounded to the hundredth, will be the decimal amount of the lump sum contract amount for Engineering Controls. WP is the "Work Performed" (as defined in Article 101.01).

Cost Adjustments - The Department will determine and publish a monthly "Fuel Index" utilizing the average area terminal price reports for regular unleaded gasoline and No. 2 fuel of the "Platts Oilgram Price Report" published during the week in which the first day of the month occurs.

The Base Fuel Index (BFI) for the project will be the monthly fuel index published for the month in which the bids were opened for the project.

The Current Fuel Index (CFI) for projects with estimate dates between the 1<sup>st</sup> and 10<sup>th</sup> of the month will be the monthly fuel index published for the prior month. The Current Fuel Index (CFI) for projects with estimate dates between the 10<sup>th</sup> and end of the month will be the monthly fuel index published for the month in which the estimate is finalized for the partial payment. A cost adjustment for construction fuel will be calculated as follows.

$$CA = P \left[ \left( \frac{CFI}{BFI} \right) - 1 \right]$$

CA = Amount of Cost Adjustment (Dollars)

P = Amount of Partial Payment Based on Amount of Work Performed (Dollars)

CFI = Current Fuel Index (the CFI for the current month is defined above)

BFI = base Fuel index

After the expiration of contract time (plus approved time extensions) two calculations of a potential cost adjustment will be made. The first calculation will be made using the current index (CFI) and the base index (BFI) as noted in the preceding formula. The second calculation will be made using the index during the month that contract time (plus approved time extensions) expired and the base index. The smallest amount of cost adjustment resulting from these two calculations will be made for the current estimate period.

Partial payments and cost adjustments for Construction Fuel will be made for one lump sum for each project or combination of projects included in a single contract. When more than one project is included in one contract, the amount of payment to be made will be based on the "Work Performed" as defined in Section 101 and amount of the entire contract, not the amount of each individual project. Once the amount of partial payment and cost adjustment is determined, based on the entire contract, this amount will then be prepared for payment on each individual project based on the fraction of the total contract of which the project is a part.

At the completion of work, the sum of partial payments may exceed or be less than the original contract lump sum unit price. The final quantity may be more or less than 1.0 due to contract overruns and underruns.

# ALABAMA DEPARTMENT OF TRANSPORTATION

DATE: October 13, 2009

Special Provision No. 08-0565

EFFECTIVE DATE: ????????????????????????????

SUBJECT: Work Performed and Progress Based Pay Items.

Alabama Standard Specifications, 2008 Edition, shall be amended by the revision of SECTIONS 101, 108, by the replacement of SECTION 600, by the revision of SECTION 680 and by the replacement of SECTION 698 as follows:

## SECTION 101 DEFINITION OF TERMS

### 101.01 Definitions.

(b) TERMS.

*This Article (101.01) shall be amended by the addition of the following definitions:*

**Work Performed.** The dollar amount of work that has been completed at a point in time when progress payments (monthly estimate payments) will be made. Work Performed is the payment for the designated physical construction work that has been completed and accepted for payment. Work Performed will not include the following:

- payments for extra work done on a Force Account basis;
- payments that were, or will be based on the progress and quality of the construction;
- payments that were, or will be made for material price adjustments, fuels, and stored or unused materials.

**Progress Based Pay Items.** Contract pay items for which progress payments (monthly estimate payments) are based on the progress of construction. Progress based pay items include Mobilization, Construction Fuel, Engineering Controls, and other items for which payments will be based on the progress of construction.

**Adjusted Contract Amount.** The current contract amount that is determined by applying actual and projected changes to the Contract Bid Price (original contract amount) caused by quantity overruns and underruns in contract items and actual and projected costs for extra work, either by supplemental agreement or by force account.

*This Article (101.01) shall also be amended by the deletion of the following definition:*

~~**Contract Sum or Contract Amount.** The total contract bid price, revised to include changes caused by overruns and underruns in contract items, plus the sum of all approved supplemental agreements and force account orders.~~

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## SECTION 108 PROSECUTION AND PROGRESS

### 108.04 Prosecution of Work.

(e) UNSATISFACTORY PROGRESS.

***This Subarticle (108.04(e)) shall be replaced by the following:***

(e) UNSATISFACTORY PROGRESS.

The Department will monitor the Contractor's progress towards completing the work. The Contractor may be disqualified from bidding further work with the Department if the progress towards completing the work is unsatisfactory.

Unsatisfactory progress toward completing the work shall be when the "Percent Time Elapsed" exceeds the "Percent Complete" by more than 25 %. Percent Time Elapsed and Percent Complete are defined as follows:

$$\text{Percent Time Elapsed} = 100 \times \left[ \frac{\text{Days Charged}}{\text{CT} + \text{TE}} \right]$$

$$\text{Percent Complete} = 100 \times \left[ \frac{\text{WP} + \text{FA}}{\text{AC} - \text{PBPI}} \right]$$

Where,

Days Charged = Number of days charged towards the completion of the work.

CT = Original Contract time. (Days)

TE = Number of days of time extension. (Days)

WP = "Work Performed" as defined in Article 101.01. (Dollars)

FA = Payments for Extra Work paid by Force Account. (Dollars)

AC = "Adjusted Contract Amount" as defined in Article 101.01. (Dollars)

PBPI = Payments for "Progress Based Pay Items" as defined in Article 101.01. (Dollars)

When the Contractor's progress towards completing the work is unsatisfactory a warning notice of possible disqualification will be sent ~~from the Construction Engineer~~ to the Contractor by certified mail (return receipt requested). The Contractor will be allowed 10 calendar days from the date of the receipt of the notice of possible disqualification to complete enough of the work to make the progress satisfactory or submit in writing an acceptable explanation to the Construction Engineer for why the progress is unsatisfactory. At the end of the ten day period, a final notice of disqualification from further bidding will be issued if the progress of the work remains unsatisfactory or the explanation for the unsatisfactory progress is unacceptable.

The Contractor will remain disqualified from further bidding until the Contractor provides evidence of acceptable progress to the Construction Engineer in writing.

### 108.08 Determination of Contract Time.

(d) MONTHLY STATEMENT AND TIME CHARGES.

2. CONTRACTS ON A CLANDAR DAY OR DATE BASIS.

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***This Item (108.08(d)2.) shall be replaced by the following:***

**2. CONTRACTS ON A ~~CALENDAR~~ DAY OR DATE BASIS.**

For projects on a calendar day or date basis, a similar statement will be furnished the Contractor indicating the number of calendar days remaining in the contract. For contracts that have a calendar completion date, the days assigned for contract time will be the number of calendar days available to the Contractor for performance of the work (from the beginning of contract time charges through the original calendar completion date). A revised completion date will be established for time extensions by adding the approved number of days of extension to the original contract completion date.

**108.09 Extension of Contract Time.**

***This Article (108.09) shall be replaced by the following:***

**108.09 Extension of Contract Time.**

**(a) DAYS OR DATE OF TIME EXTENSION.**

If approved by the Engineer, contract time extensions will be given as additional working days, additional calendar days or a revised calendar completion date in accordance with the type of time that is set in the original contract for the completion of the work. An extended time for completion, once approved, shall be in full force and effect the same as though it were the original time for completion.

**(b) EXTENSION OF CONTRACT TIME DUE TO EXTRA WORK.**

The original contract time may be extended due to the addition of extra work if the Engineer determines that the extra work will affect the schedule for the completion of the project. The contract time will be modified when the extra work is made a part of the contract.

**(c) EXTENSION OF CONTRACT TIME DUE TO CONTRACT OVERRUN.**

An extension of contract time will be made by the Engineer to account for the overrun of the required work (unexpected increase in the quantity of work). The time extension will be calculated using the following formula.

$$TE = CT \left[ \frac{WP - EW}{OC - PBPI} - 1.0 \right]$$

(This formula is only applicable when WP - EW is greater than OC - PBPI.)

Where,

TE = Number of days of time extension. (Days) (Rounded up to the nearest whole number.)

CT = Original Contract time. (Days)

WP = "Work Performed" as defined in Article 101.01. (Dollars)

EW = Total Amount of Extra Work paid by Supplemental Agreement. (Dollars)

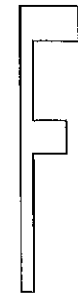
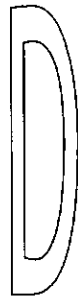
OC = Original Contract Amount. (Dollars)

PBPI = Payments for "Progress Based Pay Items" as define in Article 101.01. (Dollars)

For contracts that have a calendar completion date, there will be no automatic extension of contract time based on contract overrun. Extensions of contract time for calendar date projects must be based on either extra work or an approved Contractor request for additional time.

**(d) CONTRACTOR'S REQUEST FOR AN EXTENSION OF CONTRACT TIME.**

If the Contractor anticipates that the work cannot be completed within the contract time (which includes approved time extensions) the Engineer may consider the Contractor's request for an extension of contract time. The request must be submitted in writing to the Engineer prior to the expiration of the contract time. The request shall include the specific dates and amount of time requested by the Contractor and a full description of the circumstances that were beyond the control of



the Contractor and could not have been anticipated by the Contractor that caused the delay in the overall completion of the work. The controlling work items for each day and the factors that affected progress on these items shall also be provided. An assertion that the contract time is inadequate for the completion of the work will not be considered an acceptable reason for a time extension.

The Contractor shall submit the request for an extension of contract time to the Engineer for evaluation. The Engineer will evaluate the request and then send a recommendation for approval, disapproval or partial approval to the Construction Engineer for further evaluation.

The Construction Engineer may approve a time extension if the work was delayed because of conditions beyond the control of the Contractor and could not have been anticipated by the Contractor.

The Transportation Director will make a final determination of the amount of the time extension if the Contractor disagrees with the time extension designated by the Construction Engineer. The Contractor may submit the disputed request for a time extension directly, in writing, to the Transportation Director. The Transportation Director will be the final authority in evaluating the disputed request for the time extension. The Transportation Director may send the request to the Claims Committee for a recommendation before making the final decision. Time extension requests will not be referred to the Claims Appeal Board. Information concerning the Claims Committee and Claims Appeal Board is given in Section 110.

## SECTION 600 MOBILIZATION

### 600.01 Description.

This Section shall cover the preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for the establishment of all offices, buildings, and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various items on the project site.

The lump sum bid for mobilization shall be so distributed among the various pay items of the contract that an overrun of a particular pay item will not adversely affect the unit price of that item.

### 600.02 Materials.

Not applicable.

### 600.03 Construction Details.

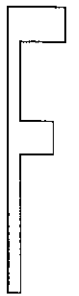
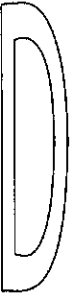
Not applicable.

### 600.04 Method of Measurement.

#### (a) PARTIAL PAYMENT.

When more than one project is included in one contract, the amount of payment to be made will be based on the "Work Performed" as defined in Section 101 and amount of the entire contract, not the amount of each individual project. Once the amount of payment is determined, based on the entire contract, this amount will then be prepared for payment on each individual project based on the fraction of the total contract of which the project is a part.

Partial Payments for mobilization are based on the Work Performed and the total original contract amount for all items of work. Payments will be made at the time, and in the amounts shown in the following schedules.



SCHEDULE OF PARTIAL PAYMENTS FOR MOBILIZATION WHEN THE CONTRACT BID PRICE FOR MOBILIZATION IS LESS THAN, OR EQUAL TO 12 % OF THE ORIGINAL CONTRACT AMOUNT (Partial Payments are a % of the Contract Amount for Mobilization)		
TIME OF PARTIAL PAYMENT	AMOUNT OF PARTIAL PAYMENT	ACCUMULATED PAYMENT
First Estimate	20 % of the Bid Price for Mobilization	20 % of the Bid Price for Mobilization
After the First Estimate and When the Work Performed Exceeds 5 % of the Original Contract Amount	50 % of the Bid Price for Mobilization	70 % of the Bid Price for Mobilization
After the First Estimate and When the Work Performed Exceeds 50 % of the Original Contract Amount	30 % of the Bid Price for Mobilization	100 % of the Bid Price for Mobilization

SCHEDULE OF PARTIAL PAYMENTS FOR MOBILIZATION WHEN THE CONTRACT BID PRICE FOR MOBILIZATION IS GREATER THAN 12 % OF THE ORIGINAL CONTRACT AMOUNT (Partial Payments are a % of the Original Contract Amount, Except the Final Payment)		
TIME OF PARTIAL PAYMENT	AMOUNT OF PARTIAL PAYMENT	ACCUMULATED PAYMENT
First Estimate	2 % of the Original Contract Amount	2 % of Total Contract Amount
After the First Estimate and When the Work Performed Exceeds 5 % of the Original Contract Amount	6 % of the Original Contract Amount	8 % of Total Contract Amount
After the First Estimate and When the Work Performed Exceeds 50 % of the Original Contract Amount	4 % of the Original Contract Amount	12 % of Total Contract Amount
Final Estimate	Remainder of Contract Amount for Mobilization	100 % of Contract Amount for Mobilization

The total sum of all payments shall not exceed the original contract amount bid for the item of Mobilization, regardless of the fact that the Contractor may have, for any reason, shut down his work on the project or moved equipment away from the project and then back again.

**(b) WHEN NO SEPARATE PAYMENT IS SHOWN IN THE PROPOSAL.**

When the proposal does not include a separate item for Mobilization, all work and incidental costs specified as being covered under this Section shall be included for payment under the several scheduled items of the overall contract, and no separate payment will be made therefore.

**600.05 Basis of Payment.**

**(a) UNIT PRICE COVERAGE.**

The item of Mobilization, measured as noted above, will be paid for at the contract lump sum price bid. Said lump sum price bid shall be full compensation for organizing and moving all labor, tools, equipment, supplies, and incidentals to the project site and for disbanding, disorganizing, and removing all labor, tools, equipment, supplies, and incidentals from the project site, regardless of number of times such moves are made, including all preconstruction costs exclusive of bidding costs.

**(b) PARTIAL PAYMENT.**

Partial payments may be made in accordance with schedule noted in Article 600.04.

**(c) PAYMENT WILL BE MADE UNDER ITEM NO.:**

600-A Mobilization - per lump sum

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## SECTION 680 ENGINEERING CONTROLS

*This Section (680) shall be amended by replacing Articles 680.04 and 680.05 with the following:*

### 680.04 Method of Measurement.

Measurement of the item of Engineering Controls will be made on a lump sum basis. When more than one project is included in a contract, each project will be designated a fractional part of the lump sum as shown on the plans.

Partial payments for the item of Engineering Controls will be made on monthly estimates with the amount to be paid each month a percentage of the lump sum amount bid. This percentage shall be the same as the percentage of work performed during the estimate period.

A partial payment for Engineering Controls will be calculated as follows.

$$P = EC \left[ \frac{WP_{ce} - WP_{pe}}{OC - PBPI} \right]$$

Where,

P = Amount of Partial Payment. (Dollars)

EC = Lump Sum Contract Amount for "Engineering Controls". (Dollars)

WP<sub>ce</sub> = "Work Performed" (as defined in Article 101.01) at the time of the current estimate for partial payment. (Dollars)

WP<sub>pe</sub> = "Work Performed" (as defined in Article 101.01) at the time of the prior estimate for partial payment. (Dollars)

OC = Original Contract Amount. (Dollars)

PBPI = Payments for "Progress Based Pay Items" as define in Article 101.01. (Dollars)

The decimal value derived by the term "(WP<sub>ce</sub> - WP<sub>pe</sub> / (OC - PBPI))" ~~rounded to the nearest hundredth~~ will be the decimal amount of the lump sum contract amount for Engineering Controls. WP is the "Work Performed" (as defined in Article 101.01).

When more than one project is included in one contract, the amount of payment to be made will be based on the "Work Performed" as defined in Section 101 and amount of the entire contract, not the amount of each individual project. Once the amount of partial payment is determined, based on the entire contract, this amount will then be prepared for payment on each individual project based on the fraction of the total contract of which the project is a part.

When the sum of the partial payments from previous estimates is greater than 90 % of the contract lump sum amount the remainder of the contract amount will be paid on the next estimate to bring the total payment for Engineering Controls to 100 % of the contract amount.

### 680.05 Basis of Payment.

#### (a) UNIT PRICE COVERAGE.

The item of Engineering Controls, measured as noted above, will be paid for at the contract lump sum price bid. Said lump sum shall be full compensation for furnishing all materials, equipment, tools, labor, and incidentals necessary to complete this item of work.

#### (b) PAYMENT WILL BE MADE UNDER ITEM NO.:

680-A Engineering Controls - per lump sum

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# SECTION 698 CONSTRUCTION FUEL COST

## 698.01 Description.

This Section shall cover the cost of construction fuel for the equipment necessary for the performance of the required work except for the production of Hot Mix Asphalt (HMA).

## 698.02 Bidding.

The bidder shall enter an amount from zero dollars up to the maximum dollar amount shown in the pay item description for fuel on the proposal form. The Contractor signifies that this amount represents a reasonable estimate of the fuel costs isolated from all other costs of completing the required work except for the production of HMA.

If a proposal contains an amount greater than the maximum amount shown in the pay item description, the amount bid for Construction Fuel will be assigned a value that is the maximum amount.

## 698.03 Method of Determining Partial Payments and Cost Adjustments.

### (a) PARTIAL PAYMENTS.

Partial payments for construction fuel will be based on the lump sum bid price for Construction Fuel and the Work Performed ("Work Performed" is defined in Section 101). This component will be calculated as follows.

$$P = CF \left[ \frac{WP_{ce} - WP_{pe}}{OC - PBPI} \right]$$

Where,

P = Amount of Partial Payment. (Dollars) (The total sum of partial payments may be less than or exceed the original contract amount for Construction Fuel.)

CF = Lump Sum Contract Amount of "Construction Fuel". (Dollars)

WP<sub>ce</sub> = "Work Performed" (as defined in Article 101.01) at the time of the current estimate or partial payment. (Dollars)

WP<sub>pe</sub> = "Work Performed" (as defined in Article 101.01) at the time of the prior estimate for partial payment. (Dollars)

OC = Original Contract Amount. (Dollars)

PBPI = Payments for "Progress Based Pay Items" as define in Article 101.01. (Dollars)

The decimal value derived by the term "(WP<sub>ce</sub> - WP<sub>pe</sub>) / (OC - PBPI)" rounded to the nearest hundredth will be the decimal amount of the lump sum contract amount for construction fuel. WP is the "Work Performed" (as defined in Article 101.01).

### (b) COST ADJUSTMENTS.

The Department will determine and publish a monthly "Fuel Index" utilizing the average area terminal price reports for regular unleaded gasoline and No. 2 fuel of the "Platts Oilgram Price Report" published during the week in which the first day of the month occurs.

The Base Fuel Index (BFI) for the project will be the monthly fuel index published for the month in which the bids were opened for the project. The Current Fuel Index (CFI) for the project will be the monthly fuel index published for the previous month if the estimate is finalized on any day from the 1 st through the 10 th day of the month. The Current Fuel Index (CFI) for the project will be the monthly fuel index published for the month in which the estimate is finalized if the estimate is finalized on any day between the 10 th and the last day of the month.

A cost adjustment for construction fuel will be calculated as follows.

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$$CA = P \left[ \frac{CFI}{BFI} - 1 \right]$$

Where,

CA = Amount of Cost Adjustment (Dollars)

P = Amount of Partial Payment Based on Amount of Work Performed (Dollars)

CFI = Current Fuel Index (the current month's CFI is defined above)

BFI = Base Fuel Index

After the expiration of contract time (plus approved time extensions) two calculations of a potential cost adjustment will be made. The first calculation will be made using the current index (CFI) and the base index (BFI) as noted in the preceding formula. The second calculation will be made using the index during the month that contract time (plus approved time extensions) expired and the base index. The smallest amount of cost adjustment resulting from these two calculations will be made for the current estimate period.

**(c) PAYMENTS AND ADJUSTMENTS FOR CONTRACTS WITH MORE THAN ONE PROJECT.**

When more than one project is included in one contract, the amount of payment to be made will be based on the "Work Performed" as defined in Section 101 and amount of the entire contract, not the amount of each individual project. Once the amount of partial payment and cost adjustment is determined, based on the entire contract, this amount will then be prepared for payment on each individual project based on the fraction of the total contract of which the project is a part.

**698.04 Basis of Payment.**

**(a) UNIT PRICE COVERAGE.**

The amount designated for construction fuel, shall be full compensation, after all applicable cost adjustments, for the furnishing of fuel for equipment used on the project, except for the fuel for the production of HMA, and for all materials, equipment, tools, labor, transportation and incidentals necessary for its use.

**(b) PAYMENT WILL BE MADE UNDER ITEM NO.:**

698-A Construction Fuel (max. bid limited to \$\_\_\_\_\_) - per Lump Sum

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