



Illinois Department of Transportation

Division of Highways / Bureau of Construction
2300 South Dirksen Parkway, Springfield, Illinois 62764

Subject:
**Procedures for Applying
the Bituminous Materials
Cost Adjustment**

CONSTRUCTION MEMORANDUM 09-22

Effective: March 1, 2009

Expires: Indefinite

PURPOSE

This memorandum prescribes procedures for applying the Bituminous Materials Cost Adjustment Special Provision.

APPLICABILITY

Procedures herein apply to all contracts awarded by the Department of Transportation under Bureau of Construction supervision, which have included the "Bituminous Materials Cost Adjustments" special provision as part of the contract.

SUMMARY

As required by Article 109.07, Partial Payments, "At least once each month, the Engineer will make a written estimate of the amount of work performed in accordance with the contract, and the value thereof at the contract unit prices" When the bituminous materials cost adjustment special provision is included as part of the contract, the provision stipulates that the "adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the items of work are satisfied."

However, a problem is encountered when applying this provision to contract pay items with a unit of measure of tons as there is a maximum payment amount (103% for HMA mixtures, 105% for bituminous materials- cover & seal coats) that is not typically calculated and applied until the end of the pay item work, as outlined in the Documentation Section of the Construction Manual.

PAYMENT PROCEDURES

Since the special provision requires adjustments to be calculated each calendar month in which bituminous materials is placed, the cost adjustment will be paid based on the applicable tonnage ticket totals for that month. Then, at the end of the applicable pay item work, the appropriate maximum payment percentage will be applied to the tonnage item(s) and an adjustment must also be made to the bituminous materials cost adjustment if there is a deduction in the maximum payment quantity (ies).

The cost adjustments only apply based on %AC_v, which is the percent of virgin asphalt cement in the quantity being adjusted.

SCENARIO 1:

The following example illustrates a typical situation and what compensation will be paid for the pay item and the bituminous materials cost adjustment when there are only increases in the price indices. This example only applies to the situation in which the work is paid at contract unit prices.

Letting Date: April 25, 2008

BPI_L (March 2008) = \$362.50/Ton

Plan Quantity of HMA SC "D" N70 = 2,636 tons

(%AC_V = 5.1%, determined from adjusted job mix formula)

Q_{JUNE} = 882.2 tons placed

BPI_P (June 2008) = \$517.50/Ton

Q_{JULY} = 1,136.2 tons placed

BPI_P (July 2008) = \$621.00/Ton

Q_{AUGUST} = 779.5 tons placed

BPI_P (August 2008) = \$706.67/Ton

Total Quantity Placed: 882.2 + 1,136.2 + 779.5 = 2,797.9 tons

Maximum Payment Calculation: 2,636 tons x 103% = 2,715.1 tons

Deduction for maximum payment: 2,797.9 tons – 2,715.1 tons = 82.8 tons

CA = (BPI_P – BPI_L) x (%AC_V / 100) x Q

CA_{JUNE} = (517.50 – 362.50) x (5.1 / 100) x 882.2 = \$6,973.79 (paid for June)

CA_{JULY} = (621.00 – 362.50) x (5.1 / 100) x 1136.2 = \$14,979.09 (paid for July)

CA_{AUGUST} = (706.67 – 362.50) x (5.1 / 100) x 779.5 = \$13,682.31 (paid for August)

Total Cost Adjustment Paid: 6,973.79 + 14,979.09 + 13,682.31 = \$35,635.19

For all the above adjustments use pay item XXX99300 Bit Price Adjustment Increase, with a positive quantity at a positive unit price.

Since maximum payment was exceeded, an adjustment shall also be made to the bituminous materials cost adjustment as follows:

(Maximum Payment Quantity / Total Quantity Placed) x Total Cost Adjustment Paid =
BMCA Adjusted for Maximum Payment

2,715.1 tons / 2,797.9 tons x \$35,635.19 = \$34,580.62

Difference: \$35,635.19 - \$34,580.62 = \$1,054.57

A deduction in the amount of \$1,054.57 shall be assessed to this same pay item in order to balance the final pay quantity.

SCENARIO 2:

The following example illustrates a typical situation and what compensation will be paid for the pay item and the bituminous materials cost adjustment when there are both increases and decreases in the price indices. This example only applies to the situation in which the work is paid at contract unit prices.

Letting Date: August 1, 2008

BPI_L (July 2008) = \$621.00/Ton

Plan Quantity of HMA SC "D" N70 = 2,434 tons

(%AC_V = 5.1%, determined from adjusted job mix formula)

Q_{SEPT} = 764.5 tons placed

BPI_P (September 2008) = \$714.44/Ton

Q_{OCT} = 1,038.6 tons placed

BPI_P (October 2008) = \$664.44/Ton

Q_{NOV} = 780.2 tons placed

BPI_P (November 2008) = \$573.33/Ton

Total Quantity Placed: $764.5 + 1,038.6 + 780.2 = 2,583.3$ tons
 Maximum Payment Calculation: $2,434 \text{ tons} \times 103\% = 2,507.0$ tons
 Deduction for maximum payment: $2,583.3 \text{ tons} - 2,507.0 \text{ tons} = 76.3$ tons

$$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$$

$CA_{SEPT} = (714.44 - 621.00) \times (5.1 / 100) \times 764.5 = \$3,643.18$ (paid for September, using XXX99300 Bit Price Adjustment Increase with a positive quantity at a positive unit price)

$CA_{OCT} = (664.44 - 621.00) \times (5.1 / 100) \times 1038.6 = \$2,300.96$ (paid for October, using XXX99300 Bit Price Adjustment Increase with a positive quantity at a positive unit price)

$CA_{NOV} = (573.33 - 621.00) \times (5.1 / 100) \times 780.2 = -\$1,896.80$ (assessed for November, using XXX99400 Bit Price Adjustment Decrease with a positive quantity at a negative unit price)

Total Cost Adjustment Assessed: $3,643.18 + 2,300.96 + (-1,896.80) = \$4,047.34$

Since maximum payment was exceeded as calculated above, an adjustment shall also be made to the bituminous materials cost adjustment as follows:

(Maximum Payment Quantity / Total Quantity Placed) x Total Cost Adjustment Assessed = BMCA Adjusted for Maximum Payment

$2,507.0 \text{ tons} / 2,583.3 \text{ tons} \times \$4,047.34 = \$3,927.80$

Difference: $\$4,047.34 - \$3,927.80 = \$119.54$

A deduction in the amount of \$119.54 shall be assessed to the XXX99300 pay item in order to balance the final pay quantity.

Appropriate balancing adjustments at the end of the pay item work must be assessed to balance the Bituminous Materials Cost Adjustment due to the maximum payment amount of the corresponding pay item(s), however, depending on which special pay item was used (XXX99300 or XXX99400) for the balancing adjustment, keep in mind that one cannot have a negative number as a final quantity.

BITUMINOUS MATERIALS COST ADJUSTMENT AS IT APPLIES TO EXTRA WORK

If additional applicable bituminous work is ordered by the Engineer and the contractor has opted to include the "Bituminous Materials Cost Adjustments" special provision as part of the contract, the following shall apply:

1. If extra work is paid for at the contract unit prices, the adjustment shall be performed as prescribed above.
2. If extra work is paid for per lump sum or agreed unit prices, the letter requesting the AUP from the contractor to the District Estimator MUST also indicate the following information: a.) a statement that the Bituminous Materials Cost Adjustment is part of the contract, b.) the letting date of the contract (not typically noted on AUP letter, and on some contracts not readily available to the district estimator), c.) a statement from the contractor indicating whether or not they are using current dollar pricing in their AUP request, and d.) when the material is anticipated to be placed. This information will assist the district estimator in determining whether an adjustment is warranted for the AUP work.

3. If extra work is paid for on a force account basis, the bituminous materials cost adjustment shall not apply to this extra work and no additional compensation will be allowed.

In the case of 1 or 2 above, the bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent as required in the special provision.

A handwritten signature in black ink, appearing to read 'WR Frey', with a long horizontal flourish extending to the right.

William R. Frey, P. E.
Engineer of Construction