DCE MEMORANDUM NO. 16-19
MATERIALS BULLETIN NO. 13-19
(FHWA Approved: 8/8/2019)

TO: DISTRICT CONSTRUCTION ENGINEERS
   DISTRICT MATERIALS AND RESEARCH ENGINEERS

FROM: Dan Hurtado, P.E., Director, Office of Construction
      Timothy Ruelke, P.E., Director, Office of Materials

COPIES: Will Watts, Amy Tootle, Ananth Prasad, Jim Warren, Chad Thompson, Nick Finch

SUBJECT: COMPENSATION FOR FC-5 ASPHALT BINDER CONTENT INCREASE MADE AFTER PROJECT BIDDING

In effort to increase the durability of FC-5 mixes, the asphalt binder content of FC-5 mix designs may increase when an existing mix design expires and is redesigned. Compensation will be provided if an FC-5 mix design’s target asphalt binder content is raised after the project is bid.

Compensation will be for the material cost of the Asphalt Binder Content Increase from the Original Mix Design’s Target Asphalt Binder Content to the New Mix Design’s Target Asphalt Binder Content.

Compensation is determined by multiplying the Asphalt Binder Content (AC) Increase by the project’s FC-5 tons placed and by the Asphalt Binder Cost at time of project bid using the formulas below:

Project AC Increase (%) = New Mix Design’s Target AC (%) − Original Mix Design’s Target AC (%)

Project Compensation ($) = \frac{\text{Project AC Increase} (\%)}{100} \times \text{FC-5 Placed (tons)} \times \text{Asphalt Binder Invoice Cost at Bid ($/ton)}

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Example Calculation:

Given:
Original Mix Design’s Target AC = 5.70%
New Mix Design’s Target AC = 6.20%
FC-5 Placed on Project = 5,611 tons
Asphalt Binder Invoice Cost at Bid = $500/ton of liquid asphalt

Project AC Increase (%)
= New Mix Design’s Target AC (%) − Original Mix Design’s Target AC (%)
= 6.20% − 5.70%
= 0.50%

Project Compensation ($)
= \frac{\text{Project AC Increase} \times FC-5 \text{ Placed} \times \text{Asphalt Binder Invoice Cost at Bid}}{100}
= \frac{0.50\% \times 5,611 \text{ tons} \times $500}{100}
= $14,027.50

Project compensation should be made as a line item adjustment to the FC-5 pay item each month the new FC-5 mix design is used.

This memorandum serves as blanket approval to process a zero-dollar supplemental agreement or work order to incorporate this change into the contract. Compensation will be made on each monthly progress estimate the new FC-5 mix design is used using Asphalt Content line item adjustment to the FC-5 pay item.

For questions regarding this memo, please contact Richard Hewitt (386) 943-5305.

DH/TR/rh