

**I-75 Modernization Project
Design-Build Segment 2
Q&A #3**

December 21, 2017

Q14: MDOT is proposing the user delay component of the EUAC be based on User Delay Cost Savings, based on Bid Days of Early Completion, rather than total user delay costs. This is not in compliance with the LCCA law. (Act 51 of 1951 section 247.651h). As shown below, subsection (2) of the law states:

(2) “Except as otherwise provided in this section, life-cycle cost shall compare equivalent designs and shall be based upon Michigan's actual historic project maintenance, repair, and resurfacing schedules and costs as recorded by the pavement management system, and **shall include estimates of user costs** throughout the entire pavement life.

The law explicitly requires user costs, not user costs “savings”, to be included in the life cycle cost calculations. In order to comply with the law, MDOT’s LCCA / Pavement Type Selection procedure has always included user costs, not user cost “savings”. The pavement type selection for an alternate bid is essentially the LCCA calculated at time of bid. The only difference between a normal MDOT LCCA / Pavement Type Selection and selecting the pavement type by alternate bidding, is that actual bid prices and actual user delay costs are used in “LCCA calculations” in the alternate bid process.

In summary, we object to the use of user delay cost “savings” as proposed. Instead we are requesting that the Department use total user delay costs in the NPV / EUAC calculation as was done on the I-75 Segment 1 project, and every other alternate bid project let to date.

A14: Past APB projects have included an incentive/disincentive as part of the bid to account for time of construction, and thereby, user delay costs. For this project, we are not using any incentive or disincentive such as A+B or Lane Rental. There is, however, a date by which substantial completion must be achieved. Because all contractors are expected to meet this same completion date, this essentially locks in the user delay costs for the project duration for all bidders. However, any contractor who feels they can deliver the project before our desired completion date will have their user delay reduced by the amount of that will not be experienced by the travelling public. So, essentially, we are working back from the end point, rather than from the start. This allows the contractor the opportunity to reduce user delay costs which provides benefit to the public. So the department believes it is still taking user delay into account as is intended by the law. We chose the term “user cost savings” to differentiate it from how we had calculated user delay in the past. If you have an alternative name to suggest, please let us know.

Q15: The I -75 Segment 1 project included user delay cost for Ramps in the NPV/ EUAC calculation. Segment 2 does not. We are requesting that the NPV/ EUAC calculations for this project include Ramp User Delay Cost. It is important to the motorists using the interchanges that ramp closures/ delays be minimized. Including Ramp User Delay Cost will help accomplish this.

A15: User delay for the ramps on I-75 segment 1 was not included. User delay for the ramps was also not included for the M-6 APB. The user delay for the ramps on these projects is so small compared to mainline user delay, that it was considered insignificant. With the approach taken with user delay noted in the previous answer (completion of the entire project – not individual sections such as ramps), it is not necessary to take user delay into account for the ramps. It is inherent in the completion date bid by the contractor.

Q16: Non- Pavement bid items are included in the EUAC calculation used to determine the low bid alternate. The Non-Pavement items include Common Road Work, Bridge Work, ITS work and all the other construction items required to construct the project. Different EUAC Factors for the Non-Pavement items are applied to each pavement alternate. This creates an unfair disadvantage for HMA as ~~illustrated above and~~ discussed below.

The EUAC factor for HMA is 2.6% greater than the EUAC factor for Concrete. This results in a significant inequity because the low bid is determined by multiplying the total cost of all Contract Work by each alternate's EUAC Factor.

Therefore, the asphalt alternate has to overcome 2.6 % of the cost of all non-pavement related work on the project. **For this project, EUAC Factor "penalty" for the HMA alternate is \$6.2 M. This means that the HMA alternate has a 10.3% bidding disadvantage**, i.e. the HMA bid costs need to be 10.3% below the Concrete bid costs just to be "even" in the alternate bid calculation.

Not only is this a large disadvantage, it is not fair that the asphalt industry is penalized for costs that have nothing to do with the "value", i.e. life cycle cost, of the HMA alternate. When MDOT lets an alternate bid project the Department is essentially selecting the pavement type using a "real time" LCCA procedure. The Department does not include the cost of bridges and other non-pavement items in a normal LCCA/ Pavement Type Selection. So why would MDOT include these items when selecting the pavement type by the alternate bid process?

We are requesting that the EUAC Factor "penalty" to be addressed on this project, and future projects, in order to have a true, valid cost comparison of the pavement alternates.

A16: The department is still concerned about unbalanced bidding should the non-pavement items be removed from the EUAC calculation. For this reason, the department will continue to include all project costs in the EUAC calculation.