



Direction for Use of Alternative Bids for Pavements

FINAL

Because of the potential for significant changes in material prices during the life of the STIP MnDOT will be using a process for alternative bids for pavements on selected projects. Listed below are guidelines to be used when considering if an alternative pavement process should be considered.

For Major or Reconstruction projects where a formal pavement selection process would be required:

- For major or reconstruction projects that would otherwise have to go through a formal pavement selection process, the construction plans should be developed with a concrete and bituminous pavement option rather than use the pavement selection process.
- For projects that would be exempt from the formal pavement selection project, as described in the current Technical Memo (Less than 2 miles in length or less than 30,000 square yards), the pavement type shall be selected using life cycle cost analysis. The analysis shall be maintained with the scoping documents.

For Preservation projects:

- Alternative Bids shall be considered for all projects where the proposed pavement thickness is *greater than or equal to 4"* and less than or equal to 7". This may include projects such as Bituminous Overlay, Bituminous Reclamation, Bituminous CIR, White topping and Unbonded Overlays. For projects that would normally be alternative bid (i.e. $\geq 4"$ or $\leq 7"$) but that the District does not believe will be a viable alternative bid candidate, they need to coordinate early with the Office of Materials and Road Research to ensure compliance with Department expectations.
- For projects that are less than 4" in thickness and greater than 7" the design should be justified by use of life cycle cost analysis and available funding and should be documented in the scoping documents.
- Alternative Bids may be considered on other projects if the District believes that there are valid reasons for their decisions.

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For More Information

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Guidelines for the Preparation of Construction Plans

- The District Materials Engineers and the Pavement Design Unit have determined that the minimum new concrete pavement thickness is 6". This is a change from previous standards.
- The minimum concrete thickness for white topping is 5" with 6' by 6' panels.
- The current minimum thickness for an unbonded overlay is 6". A 5" minimum thickness will be considered on a case by case basis. Coordination with the Pavement Design Unit is required for a 5" design.
- Widths shall be the same for the bituminous and concrete alternative bids pavement sections. Earlier documents showed that for rural two lane roadways a 26' mainline width shall normally be used. The development and implementation of the Rumble Strip Tech Memo may influence the pavement width. Lump sum pavement items had been considered for the development of alternative bids. However, this will make it difficult to compare prices with non alternative bids and does not work well with preservation projects where there may be a variable thickness therefore:
 - For reconstruction projects, where the pavement is being placed on tolerance grades, the method of payment for the pavement surface should be Square Yard for asphalt and Square Yard for concrete. These are pay items currently used. Contract language shall be added so that it is clear that these are plan quantities and the quantities will not be adjusted for overruns. The current method used of determining the final pavement thickness for concrete pavement shall be used for both alternates when the square yard pay item is used.
 - For preservation projects, where the pavement thicknesses may vary due to surface irregularities in the underlying surfaces, bituminous shall be paid for by the ton and the concrete paid for by the cubic yard as per current practice.
- For projects that would normally be alternative bid (i.e. $\geq 4"$ or $\leq 7"$) but that the District does not believe will be a viable alternative bid candidate, they need to coordinate early with the Office of Materials and Road Research to ensure compliance with this guidance.
- Districts should submit their alternative pavement cross sections to the Pavement Design Unit for review to ensure that the alternatives being selected are consistent with department guidance and are equivalent and comparable designs. The review shall be early in the process to minimize rework if the cross section needs to be changed. Typically this would be at the 30% complete level in project development. The Pavement Section will provide the typical sections to industry for their review.
- The Districts should determine if they need to establish a design profile as part of the preservation project.



- If there are significant differences in the traffic control plans for the Bituminous and Concrete options the cost of the traffic control plan should be part of the alternative bid. Preservation projects may include lane rental and/or A+B bidding to further minimize the project impacts and costs.
- If the District believes that the use of Type A aggregate is justified they will need to determine how to structure the contract so that the concrete option is treated equitably.
- The current FTP with the FHWA allows the use of the Maintenance Adjustment factor in computing the low bid through June 30, 2013.
- The use of incentives shall be coordinated with the Office of Materials and Road Research Materials Office to ensure that the incentives are equitable between the two pavement alternatives. There is specification language for this already developed.
- To allow for clear understanding of what projects will be alternative bid, a note should be added to the project description in the project scoping documents and identified in the program/STIP.
- A standard maintenance schedule has been developed by the Office of Materials and Road Research for various pavement sections. The Estimating Unit will provide unit prices for the maintenance items. With the assistance from the Estimating Unit, the Office of Materials and Road Research will provide the LCCA adjustment factor to the Pre-Letting Unit.

