



MEMORANDUM

Date: March 23, 2021
To: Elizabeth Mursko, City Administrator
Jim Windingstad, Public Works Director
Mayor and City Council Members
From: Kevin Bittner, City Engineer *KFB*
Subject: Bid Alternate Evaluation – Hornsby Street Improvements, C.P. 21-01
BMI Project No.: R16.120592

The City Council will be meeting in a special meeting on March 31 to award the bid for the Hornsby Street Improvement project. As you will recall, the base bids for the project were based on the “C” oil option for the bituminous pavement mixture and we included an option for “B” oil mixture. Following is a comparison of the bid results for the base bid (C-oil) and alternate bid (B-oil).

Contractor	Base Bid (C-Oil Option)	Alternate Bid* (B-Oil Option)	Difference
Forest Lake Contracting, Inc.	\$1,262,879.00	\$1,228,096.60	\$34,782.40

*Includes Sawing & Sealing of Joints every 40’.

To review again briefly, the C-oil mixture remains more flexible at colder temperatures and therefore reduces pavement cracking due to thermal contraction. The Local Road Research Board (LRRB) is currently undertaking a study to determine the cost/benefits of C-oil mixtures versus B-oil mixtures. The results of this study will likely not be available for another 18 to 24 months.

Based on anecdotal evidence from other communities that have measured transverse crack frequency for C-oil mixtures, transverse cracking is reduced roughly in half using C-oil mixtures compared to B-oil mixtures. Based on the bid cost differential of just under \$35,000 and a rough cost analysis of preferred sawed joint and crack maintenance methods, the break-even time frame for the C-oil option is approximately 30 years, which is roughly the life expectancy of the pavement.

Therefore, based on this review, the Council could choose either option and be in the same ballpark of costs over the life of the pavement. Given the opportunity to decrease the up-front funds needed, the B-oil option may be preferable.