

Extended Vehicle Travel Distance

The increase in distance that the Department must travel results in not only an increase in the amount of fuel required for vehicles, but also an increase in cost due to the time it takes the vehicles to travel. These calculations were calculated based on the difference in distances from the City of Minneapolis Asphalt Plant to the projects and the Midwest Asphalt Plant to the project.

It has been calculated that the 2004 season has seen an increase in travel distance to it's major construction projects of approximately 57,112 miles. Given an estimated fuel efficiency of 5 miles per gallon per vehicle, and an average fuel price of \$1.70 per gallon, this amounts to an additional \$19,418 in fuel charges to the Department.

It has been calculated that the 2004 season has seen an increase in travel time of approximately 1,062 hours. Given a vehicle charge rate of \$62.50 per hour, this amounts to an additional \$66,427 in vehicle charges to the Department.

Increased Vehicle Maintenance

Vehicle maintenance costs average \$2.35 per mile. Given an increased travel distance of 57,112 miles in the 2004 season, this amounts to an additional \$134,213 in vehicle maintenance charges to the Department.

Accelerated Vehicle Replacements

The City of Minneapolis Public Works Paving Division uses up to 8 City of Minneapolis trucks per day to haul hot-mix asphalt. These trucks have a current replacement cycle of 15 years. Due to the longer haul distance, each City of Minneapolis truck may have to travel an extra 107,000 miles during it's lifetime to pick up and deliver hot-mix asphalt. This will decrease the number of years in the replacement cycle for each truck. The extra cost of depreciation and replacement for each truck would be approximately \$450 per year. For the total hot-mix asphalt truck fleet, this would amount to \$3,600 per year.

Extended Vehicle Wait Times

Due to the fact that the City of Minneapolis vehicles are not obtaining hot mix asphalt from City of Minneapolis plants, the City vehicles are not the only priority customers. This often resulted in lost time, lost productivity, and additional charges to the Department as vehicles waited to be loaded at the plant for excessive periods of time. In some cases vehicles have waited over an hour to obtain a load of asphalt. It has been calculated that vehicles have waited on average 33 minutes for each load of hot mix

asphalt from Midwest Asphalt. This differs from the average wait time at the City of Minneapolis Asphalt Plant of 15 minutes. Given a vehicle charge rate of \$62.50 per hour and 3,192 loads of asphalt being used, this amounts to an additional \$59,850 in vehicle charges to the Department.

Increase In Number of Vehicles Needed

As a result of the extended vehicle travel distance and the additional time required to travel this extra distance, it takes more vehicles in order to maintain the same asphalt placement efficiency.

The Equipment Services Division provides the Paving Department with 8 dedicated vehicles on a daily basis to be utilized for the hauling of hot mix asphalt. The Paving Construction Department assess the rate at which asphalt must be placed that day and balances out the vehicle needs by ordering additional vehicles from Equipment Services or the asphalt supplier to meet it's needs. Equipment Services vehicles are charged at a rate of \$62.50 per hour. Additional vehicles from the asphalt vendor are charged at a rate of \$4.75 per ton (\$5.06 with tax).

It has been calculated that during 2004 that roughly 3 additional vehicles from Equipment Services were needed for approximately 37 days of work. This amounted to an additional \$55,500 in charges. It has been calculated that vehicles provided by the asphalt supplier have hauled 6,610 tons of asphalt. This amounted to an additional \$33,448 in vehicle charges to the Department.

Extra Charges To Accommodate Non-Typical Work Conditions

The City of Minneapolis Asphalt Plant provided asphalt to all City of Minneapolis Departments and other governmental agencies at the same price, irregardless of the month of the year, the time of day, day of the week, or the amount of hot-mix asphalt supplied.

It was not uncommon for the City of Minneapolis Asphalt Plant to remain open producing mix into the evening, or to open on a Saturday to produce mix. The City of Minneapolis Asphalt Plant has stayed open beyond Thanksgiving into December to accommodate the needs of the Public Works Department in ways beneficial to the motoring public.

While City of Minneapolis hot-mix asphalt was priced higher than the private suppliers, additional charges for producing the mix on any such occurrences were included in the price. This is not the case for procuring asphalt from the private suppliers.

In purchasing hot-mix asphalt from the private suppliers, the City of Minneapolis is now exposed to additional charges to mix supplied under non-typical conditions. The additional charges that the City may encounter in purchasing hot-mix asphalt are listed below:

Midwest Asphalt Additional Charges

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| Picking up less than 10 tons of mix in a truck | \$ 1.00 Per ton |
| Using less than 100 total tons of mix in a day | \$ 1.00 Per ton |
| Keeping plant open after normal business hours | \$ 1.00 Per ton |
| Opening plant on Saturday | \$ 5.00 Per ton |
| Opening plant on Sunday | \$ 45.00 Per ton |
| Opening plant on a holiday | \$ 45.00 Per ton |
| Opening plant after Thanksgiving Day | \$ 45.00 Per ton |
| Opening plant on short notice for an emergency | \$ 10.00 Per ton |
| Trucking surcharge for Saturday, Sunday, Holiday deliveries | \$ 5.00 Per ton |

Bituminous Roadways Additional Charges

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| Picking up less than 4 tons of mix in a truck | \$ 35.00 Per Load |
| Using less than 20 total tons of mix in a day | \$ 100.00 Per Day |
| Keeping plant open after normal business hours | \$ 150.00 Per hour |
| Opening plant on Saturday | \$ 200.00 Per hour |
| Opening plant on Sunday | \$ 300.00 Per hour |
| Opening plant on a holiday | \$ 300.00 Per hour |
| Opening plant after Thanksgiving Day | \$ 2,500.00 Per day |
| Opening plant on short notice for an emergency | \$ 400.00 Per hour |
| Trucking surcharge for Saturday, Sunday, Holiday deliveries | \$ 2.00 Per ton |

The production rates of the City's Paving Construction Department often necessitates the needs for vehicle loads greater than 10 tons of mix, therefore it does not incur additional charges for picking up less than 10 tons of mix from Midwest Asphalt. However, the City's Street Maintenance Department often picks up loads of asphalt that are less than 4 tons (short loads), thus incurring additional charges of \$35 per vehicle with less than 4 tons.

It has been calculated that during the 2004 season, the Street Maintenance Department has taken delivery of in excess of 500 loads of asphalt of less than 4 tons. At \$35 per load this amounts to approximately an additional \$17,500 in charges to the Department.

