



III. INCENTIVE PROJECTS

A. PURPOSE

To expedite construction timelines, Mn/DOT has offered incentives and liquidated savings on several projects throughout the state. Mn/DOT has recently incorporated the use of incentive/disincentives on several roadway projects to expedite construction timelines.

Two projects implemented Liquidated Savings, a concept in which the contractor can obtain an incentive equal to the amount of Mn/DOT's contract administration fees for early completion.

B. PROJECT TYPES

District	SP	Hwy	Letting	Construction Type	Incentive Type
2	6803-38	11	6/10/2005	Grading, Bit Surfacing, Storm Sewer, Signals	Daily Incentive
3	4912-48	371	3/25/2005	Grading, Bit Surfacing, Bridges, Box Culverts	Daily Incentive
4	2102-50	29	3/26/2004	Grading, Storm Sewer, Concrete Surfacing	Daily Incentive
4	1480-139	94	1/28/2005	Bit Surfacing and Ditch Cleaning	Liquidated Savings
4	0307-11	113	5/22/2005	Bit Surfacing	Liquidated Savings
METRO	2738-20	101/94	5/20/2005	Deck Overlay, Joint Repair, Guardrail	Intermediate Incentive

Table 4 – Projects with Incentive Clauses

C. PROJECT COSTS AND INCENTIVES PAYOUTS

Listed below in the following table are the engineer estimates, low bid, maximum incentive amounts and the amount of incentives paid out on each of these projects.

District	SP	Hwy	Eng Estimate	Low Bid	Daily Incentive	Max Incentive	Max Inc. % of Bid	Paid Incentives
2	6803-38	11	\$ 3,317,302	\$ 3,493,951	\$ 3,000	\$ 75,000	2.1%	TBD
3	4912-48	371	\$ 18,489,835	\$ 15,856,301	\$ 10,000	\$ 250,000	1.6%	\$ 250,000
4	2102-50	29	\$ 6,357,301	\$ 6,863,097	\$ 5,000	\$ 300,000	4.4%	\$ 300,000
4	1480-139	94	\$ 1,685,417	\$ 1,765,829	\$ 1,250	No Max	--	0
4	0307-11	113	\$ 1,677,934	\$ 1,422,933	\$ 1,250	\$ 31,250	--	\$ 5,250
METRO	2738-20	101/94	\$ 618,947	\$ 601,335	\$ 10,000	\$ 50,000	8.1%	\$ 50,000

Table 5 – Project Cost, Maximum Incentives and Paid Incentives

On four projects, the low bid came in under the engineers estimate. The other two projects were 5% and 8% over the engineers estimate. There is currently not enough data to determine if contractors are adjusting their bids in anticipation of obtaining the incentive to offset costs.

D. CASE STUDIES

TH 29 – Broadway to CR 70 (SP 2102-50)

This project consisted of a major urban reconstruction of TH 29 through the City of Alexandria. The project would impact approximately 1.4 miles of TH 29 through a commercial segment of Alexandria that relies heavily on tourism.

An incentive of \$5,000 / Calendar Day was added to the contract for each before September 1, 2005 that the project was completed (up to a maximum of \$300,000). The contractor completed the project early and obtained the maximum incentive. The Mn/DOT project engineer though the project was a huge success.

TH 94 – TH 336 to Downer (SP 1480-139)

This project used liquidated savings as an incentive for contractors to complete the work earlier than anticipated. The project was completed in the maximum amount of allotted time (27 working days) and no liquidated savings or damages were charged. The project engineer indicated that the contractor did not attempt to increase production to meet the incentive.

TH 113 – CSAH 4 to TH 71 (SP 0307-11)

This project included liquidated savings in the amount of \$1250 / day for early completion on a 25 Working Day contract. The project included bituminous surfacing on 27.9 miles of TH 113 in District 4. Although the contractor did not appear to expedite the schedule to obtain the liquidated saving incentive, the project was completed in 21 working days and an incentive of \$5250 was paid.

TH 371 – TH 10 to CSAH 48 (SP 4912-48)

The four lane expansion of nine miles of TH 371 included a daily incentive of \$10,000 (maximum of \$250,000) for each day the roadway was open to four-lanes of traffic prior to October 29, 2005. The \$15.9 million project also included a contract clause that capped the disincentive at \$10,000 per day with a maximum disincentive of \$250,000.

Due to weather caused delays on other projects in the state, the contractor was able to mobilize additional crews and equipment to complete the grading work on this project. The project will completed in the fall of 2005 and a substantial incentive payment is anticipated.



TH 371 Construction

TH 11 – City of Roseau (SP 6803-38)

The reconstruction of TH 11 through the City of Roseau requires detouring traffic to local streets and impacting access to homes and businesses along the corridor. The project involved multi-stage construction over a two-year period. To expedite construction, an incentive clause of \$3,000 per day was added for completing the work in any of the stages 1-4 early, with a maximum incentive of \$75,000. Construction will be completed in 2007.



TH 11 Reconstruction - Roseau

TH 94/101 Over the Crow River (SP 2738-20)

Mn/DOT recently completed a project to rehabilitate the existing bridge decks on I-94 over the Crow River in the northwest corner of the Metro District. This segment of I-94 carries a significant amount of commuter traffic to the Twin Cities area. Work on a portion of this project required restricting traffic to a single lane on I-94.

The project combined A+B bidding with an incentive on an intermediate completion date. The intermediate completion date specified a maximum number of days (12) that I-94 could be reduced to a single lane. An incentive of \$10,000/day (maximum of \$50,000) for completing the single lane portion of the project faster than the 12 working days was added. Mn/DOT. The contractor completed the work in 5 days and received the maximum amount of incentive. To obtain the bonus, the contractor used multiple crews and extended hours of work.



E. CONCLUSIONS

- On projects with incentives (except those with liquidated savings), the contractor used extra effort to complete the project early in order to obtain the bonus.
- There is currently not enough data to determine if contractors are adjusting their bids in anticipation of obtaining the bonus to offset costs.
- On projects with incentives, the contractor used aggressive schedules that placed some strains on Mn/DOT oversight staff.
- Contractors did not appear to expedite construction times when liquidated savings was offered as a bonus.

F. RECOMMENDATIONS

- Continue to promote the use of incentives on projects and encourage districts to cap incentives.
- Develop guidelines on appropriate incentive amounts and special provisions.
- Continue to encourage the liquidated savings concept statewide and on a variety of project types. Contractors in other districts may see liquidated savings as a significant incentive to reduce contract time.