

Development of Travel Time for Rural Interstate During Construction on I-35

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Your Destination...Our Priority





Project Location



Along I-35 between Hinckley and Duluth in Minnesota

MnDOT District 1 (Duluth)

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Project Goals

- Provide
 travel time &
 congestion
 information
 to motorists
 on rural
 freeways
- Utilize an innovative approach



Project Background

Destination Innovation Project

Stand-A-Lone Project

Development of Travel Time for Rural Interstate During Construction on

I-35

Pay for Performance

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Best Value Procurement

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Design-Bid-

Build

Destination Innovation Program

What is the Destination Innovation Program?	 Assist MnDOT in delivering the right solution at the right time with the right participation Projects funded must demonstrate innovation and advance MnDOT's Strategic Vision
What was it developed?	 Build upon our Area Transportation Partnership and Statewide Transportation Improvement Plan process Provide flexibility in fostering innovative opportunities in delivering our vision Encourage MnDOT employees to deliver projects that help move MnDOT forward in one or more of its Strategic Directions
Who can participate?	 All MnDOT employees are eligible to submit requests. The Destination Innovation Program is managed by Commissioner Sorel. The Stewardship Council, which consists of the division directors and the deputy commissioner/chief engineer, supports the commissioner by recommending funding opportunities.

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Design-Bid-Build



Best Value Procurement

- Best Value Procurement allows other key factors, to be considered in the evaluation and selection process, to minimize impacts, enhance long-term performance and value of construction. Key factors include;
 - Qualifications
 - Schedule
 - Quality
 - Performance-Based Criteria















Pay for Performance

- > Description
 - The contractor is paid for work on a graduated scale based on the quality and longevity of the work over time.

> Benefits

- Eliminates blame when there is a problem with the quality of a specific work item
- Shifts risk of providing a quality product to the contractor
- Provides higher quality products for a longer duration

> Drawbacks

- Time needed after project completion to ensure product performance
- Product monitoring and inspection is time-consuming
- Contractor may be required to finance a portion of the work during the performance period





















Stand-A-Lone Project



- > Unique as it is set up as a stand-a-lone project
- > Travel time contractor is also the prime contractor
- > Allows direct accountability to successfully attain the project goals/deliverables

















Current System AND Why Changes Are Needed

- Implementation of this system will
 - Enhance safety and mobility in work zones, as well as,
 - Respond to a request by our customers to
 - Provide a uniform,
 - Easily understood system for the work zones on I– 35 from Hinckley to Duluth



- If successful, this project can provide the following to enable future successful deployments:
 - Cost & reliability information
 - System design & operation documents to
 - Develop a best practice and standard special provisions

















General Description of Travel Time System



- Travel time system, called TrafAlert[™] developed and operated by Renaissance Technologies in Mechanicsburg, Penn)
- Peak period is primarily weekends, defined as Fridays thru Sundays
- Collects traffic data
- Determines & provides real-time travel time with a desired specified accuracy and latency for this rural application
- Traffic data collected is archived in an xml format & transferred to MnDOT ownership

Travel Time Signs



http://www.trafalert.net/taduluth35/tamap.htm

















Non-Financial Benefits

- > MnDOT continually strives to take a proactive innovative approach to enhance safety, mobility and efficiency of roadways in Minnesota.
- Innovative strategies to achieve our TZD goals
- Compliance of SAFETEA-LU 1201 Real-Time System Management Information Program, Provisions 511.309.



Evaluation

The overall goals of this evaluation are:

- > To document the process MnDOT followed, identifying what worked well and what did not; and
- > To examine and summarize the data that MnDOT has collected in order to articulate a recap of the project to help MnDOT understand what to expect in similar deployments.
- Provide documentation enabling decisions on the value of these systems on future similar projects.
- * The project evaluation will be available on our website in February of 2013.

















Questions?

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http://www.dot.state.mn.us/guidestar/2006_2010/











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