



Travel Time for Rural Construction Work Zones

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MnDOT

2013 Work Zone ITS Peer Exchange

May 21-22, 2013

Your Destination...Our Priority

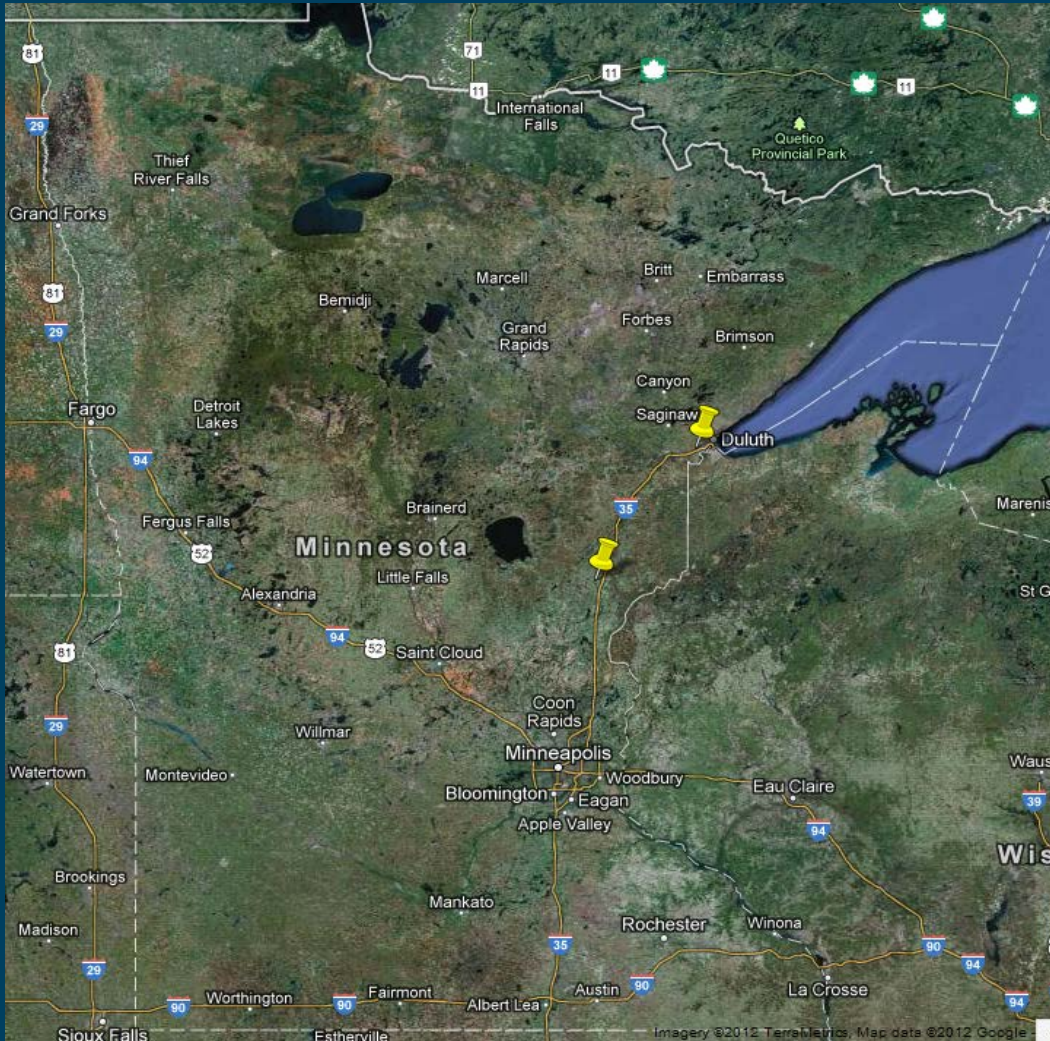


Why provide travel time in work zones?

- Well received by the public;
- Improves travelers' experiences;
- Motorists appreciate information to:
 - make route and other planning decisions,
 - set their expectations, and
 - reduce stress and frustration.



General Description of I-35 Travel Time System



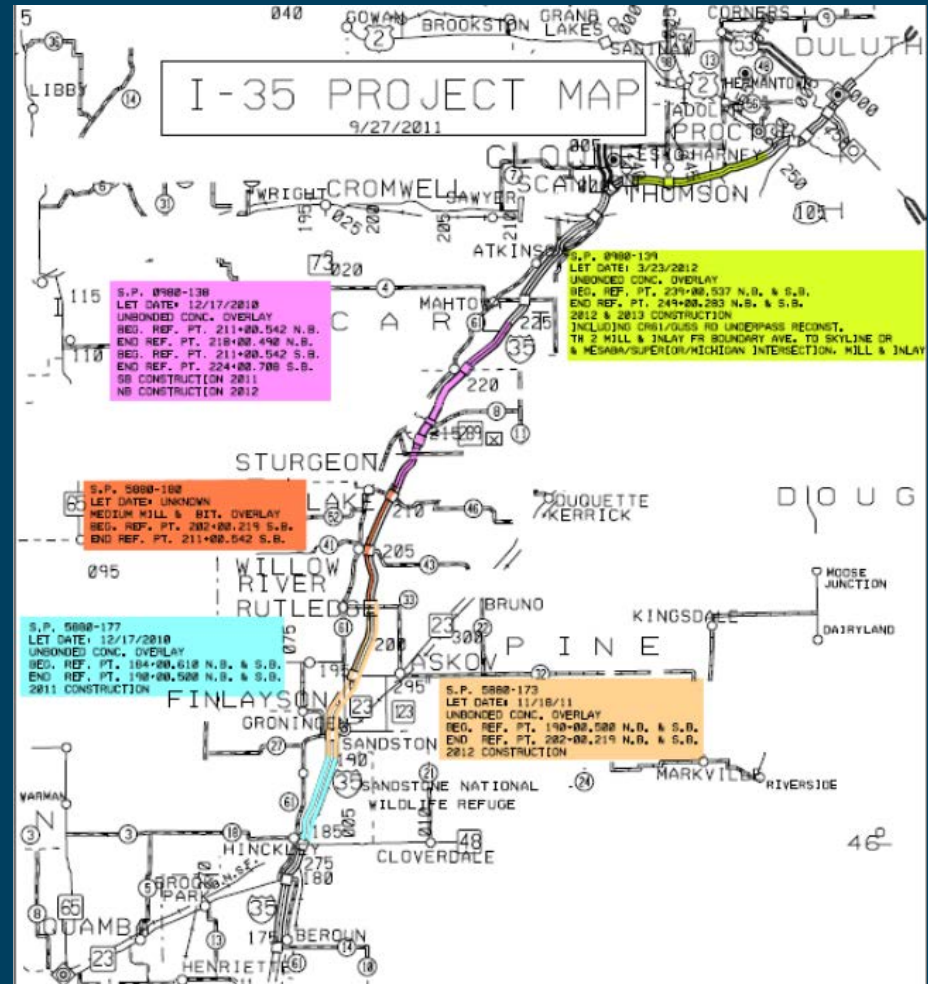
➤ Along I-35 between Hinckley and Duluth in Minnesota

➤ MnDOT District 1 (Duluth)

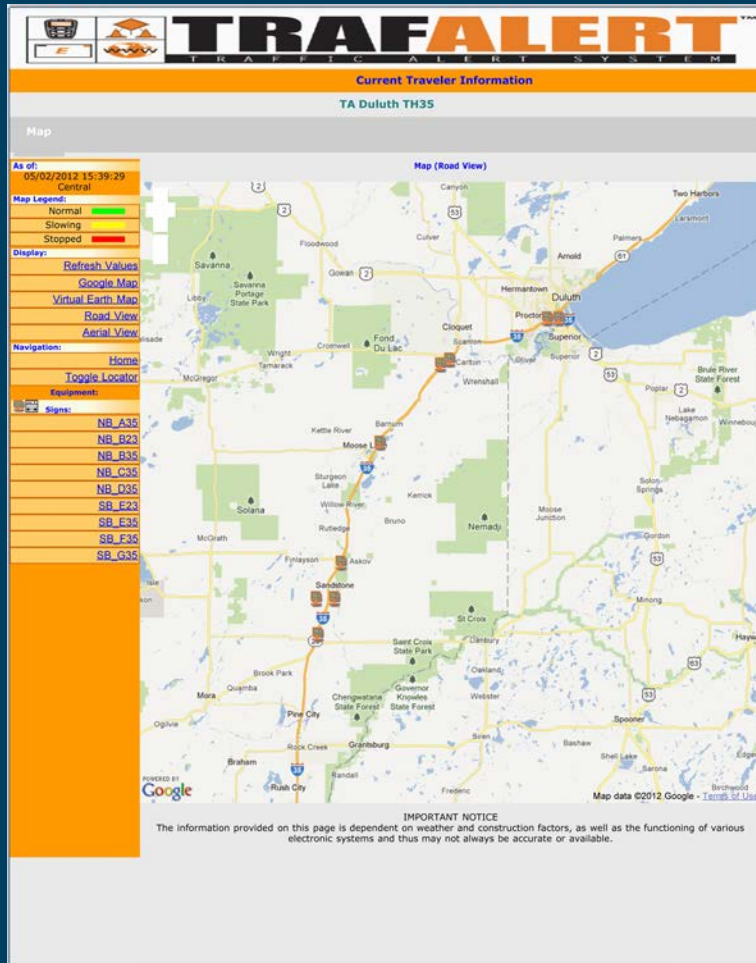


General Description of I-35 Travel Time System

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



General Description of I-35 Travel Time System

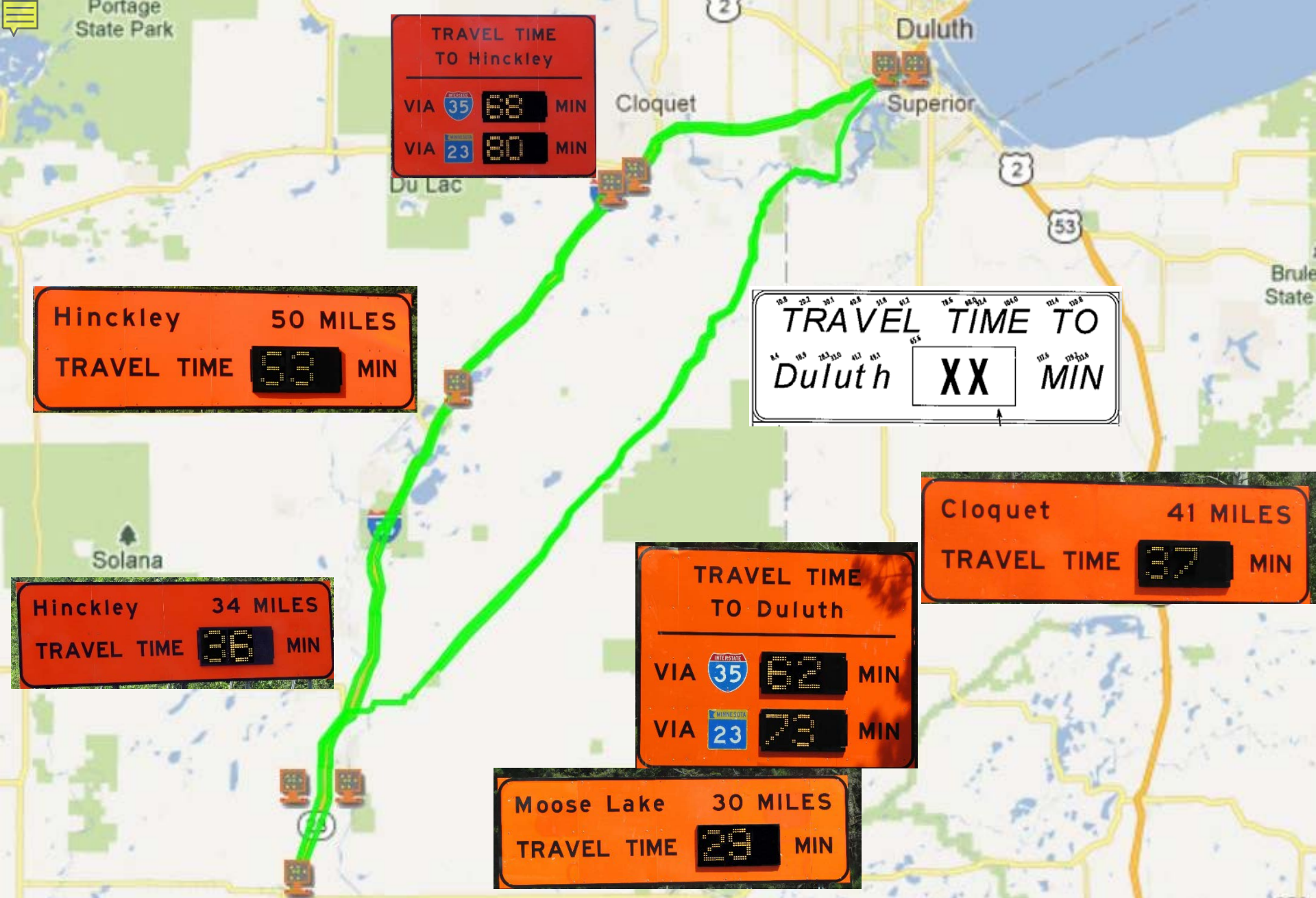


- Travel time system, called TrafAlert™ developed and operated by Renaissance Technologies in Mechanicsburg, Penn)
- Peak period is primarily weekends, defined as Fridays thru Sundays
- Collects traffic data
- Determines & provides real-time travel time with a desired specified accuracy and latency for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

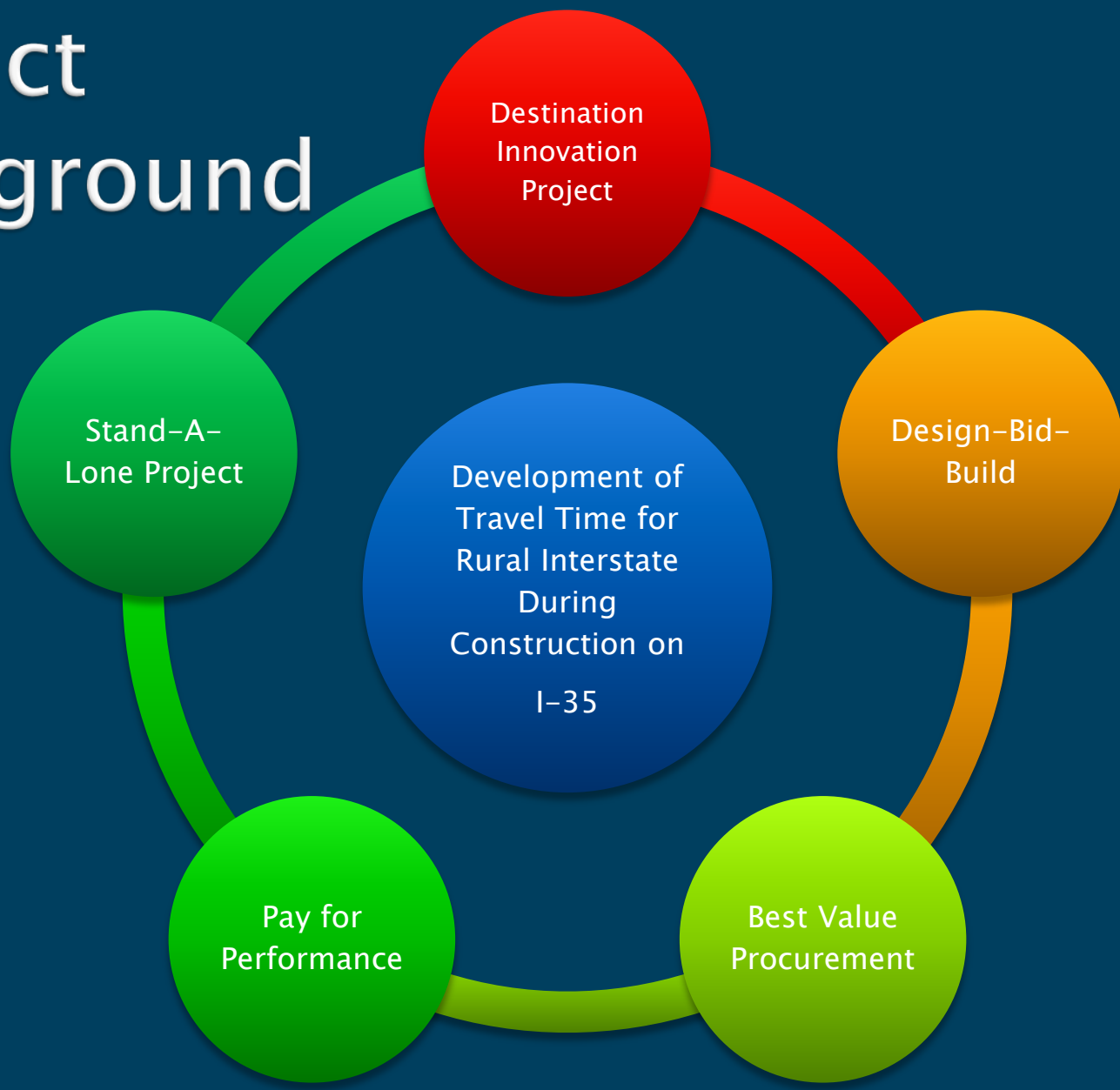


Travel Time Signs





Project Background



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



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:

- Qualifications and Experience
- Schedule
- Quality
- Performance-Based Criteria



Pay for Performance

- Description
- Benefits
- Drawbacks



System Details in Plans and Specifications

- Performance Requirements
- Method Requirements
- Basis of Payment



Quality Control

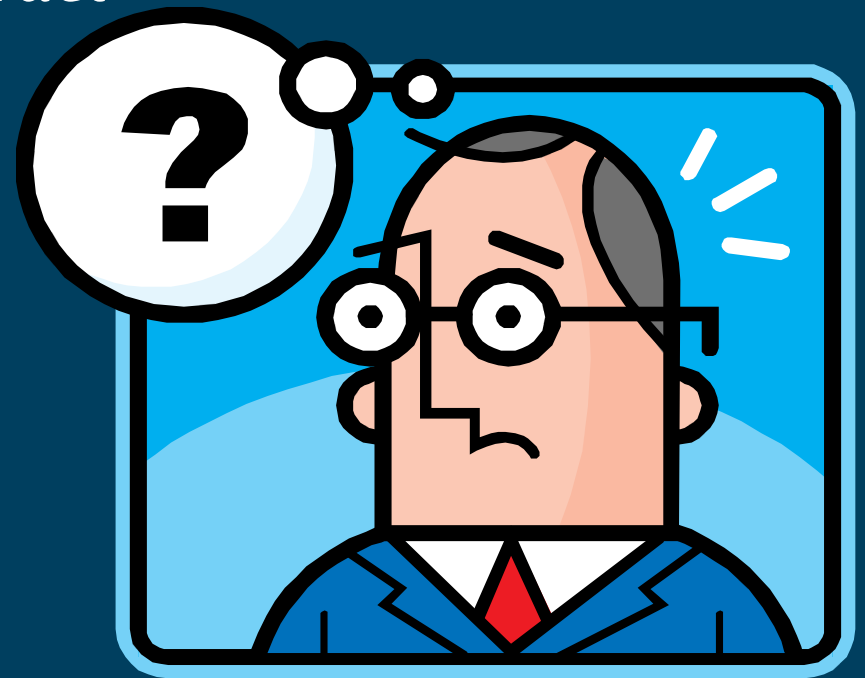


- Cost of Additional Requirements
- Appropriate Levels of Inspection



Systems Requirements Language

- Provide Clear Easily Understood Requirements
- Define Terms in the Contract



Travel Time Comparison Method

Floating Car Method

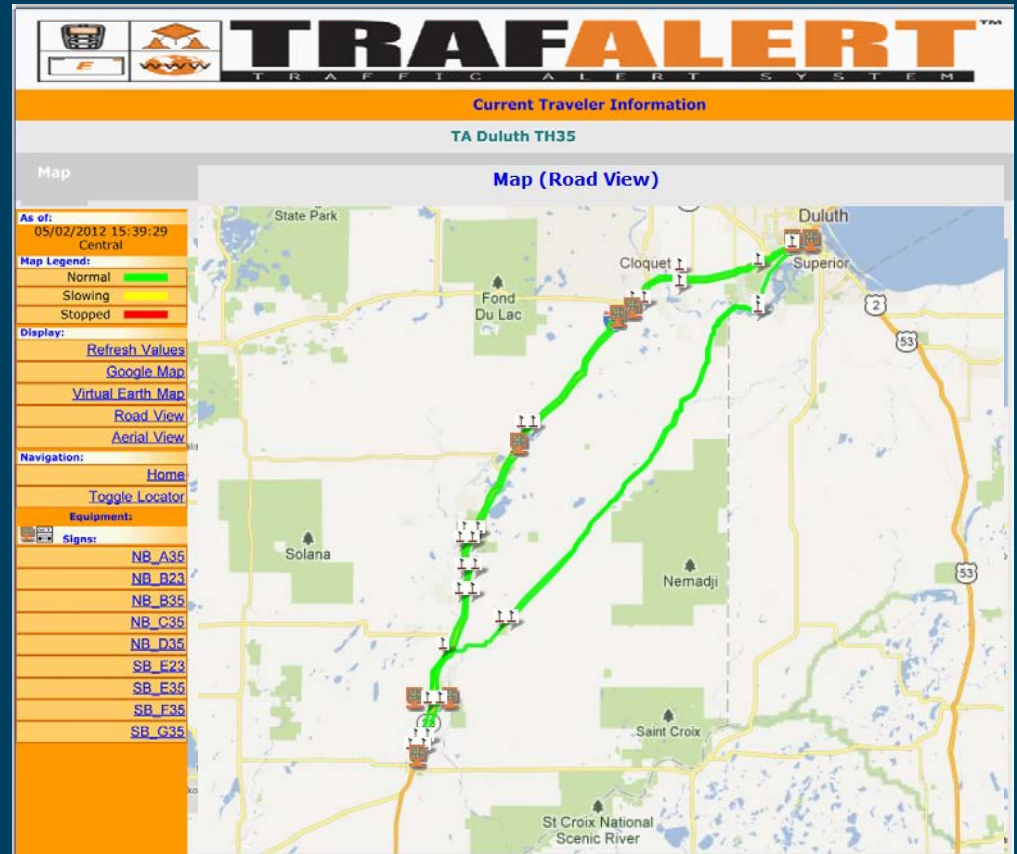


Monetary Deductions

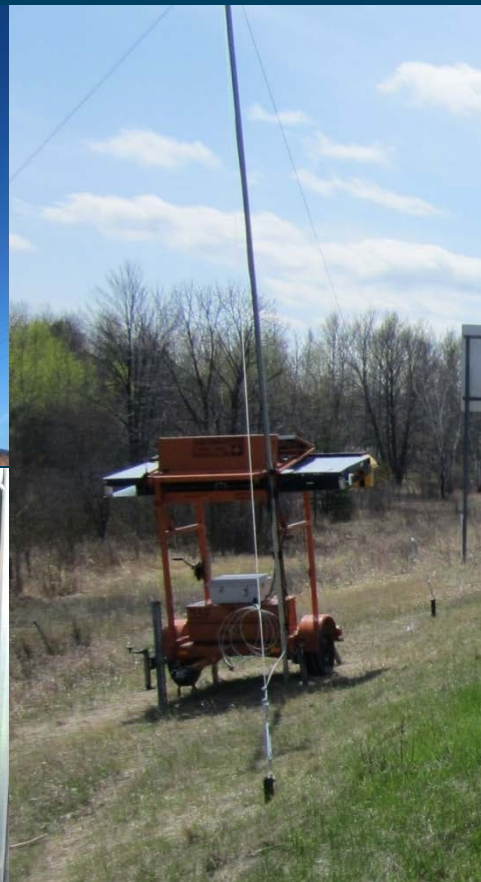


Project Website

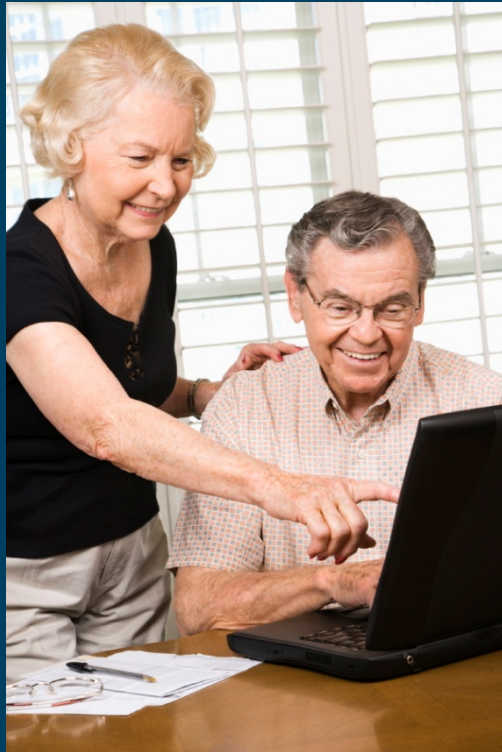
- Required by Contract
- Linked on Mn511 Website



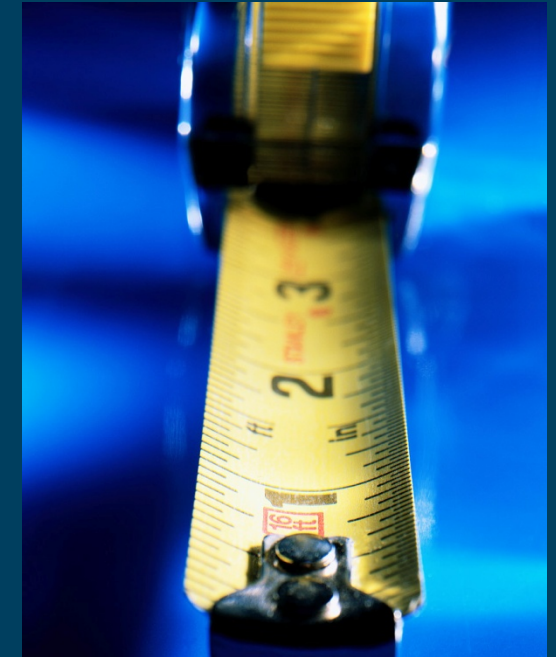
Staff Training and Technology



Public Feedback



System Performance



Project Goals and Indicators of Success

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

Evaluation of Rural Travel Times During Construction

FINAL

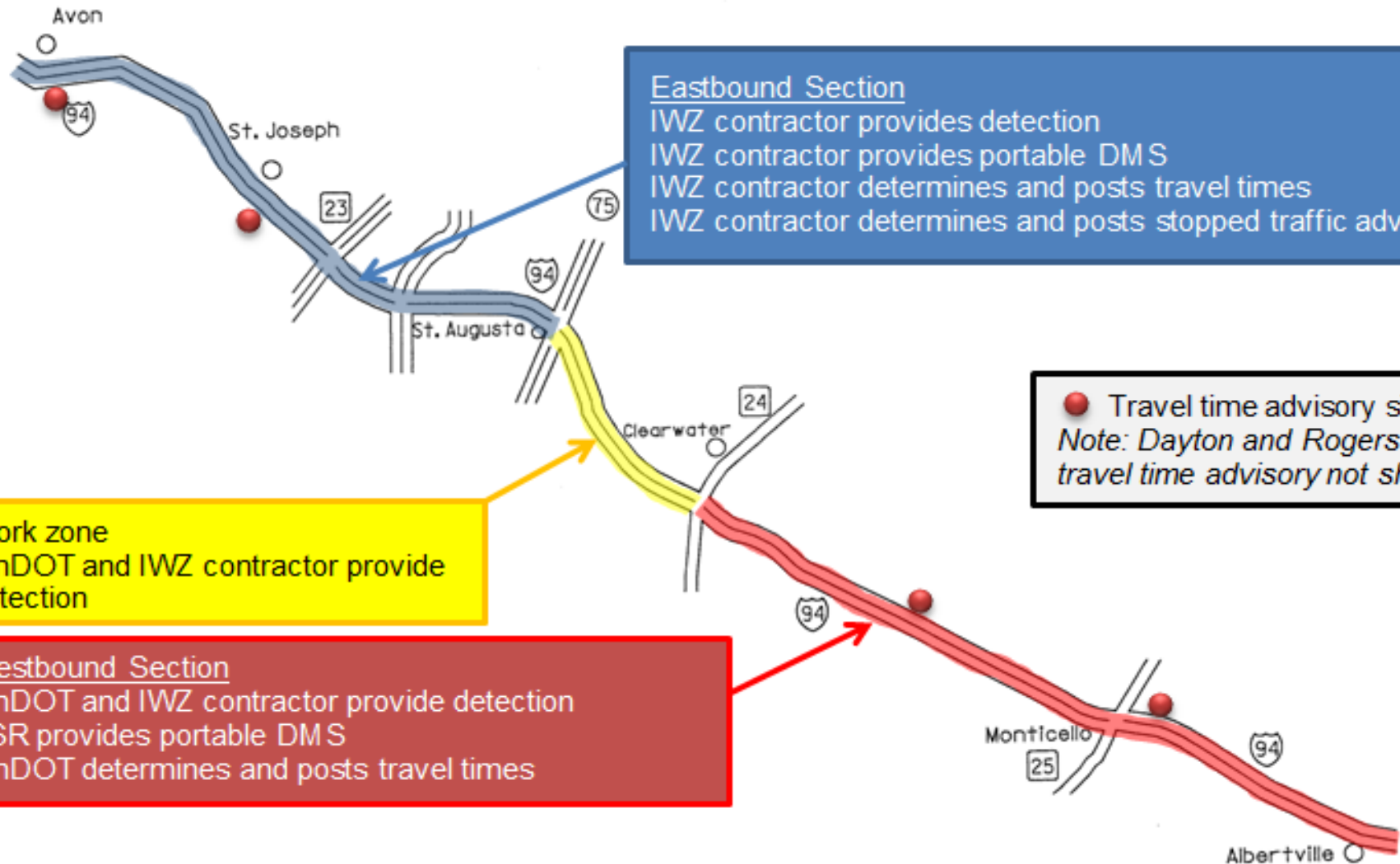
Prepared by:
Athey Creek Consultants

January 30, 2013

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Eastbound I-94 Intelligent Work Zone



Eastbound Section
IWZ contractor provides detection
IWZ contractor provides portable DMS
IWZ contractor determines and posts travel times
IWZ contractor determines and posts stopped traffic advisory

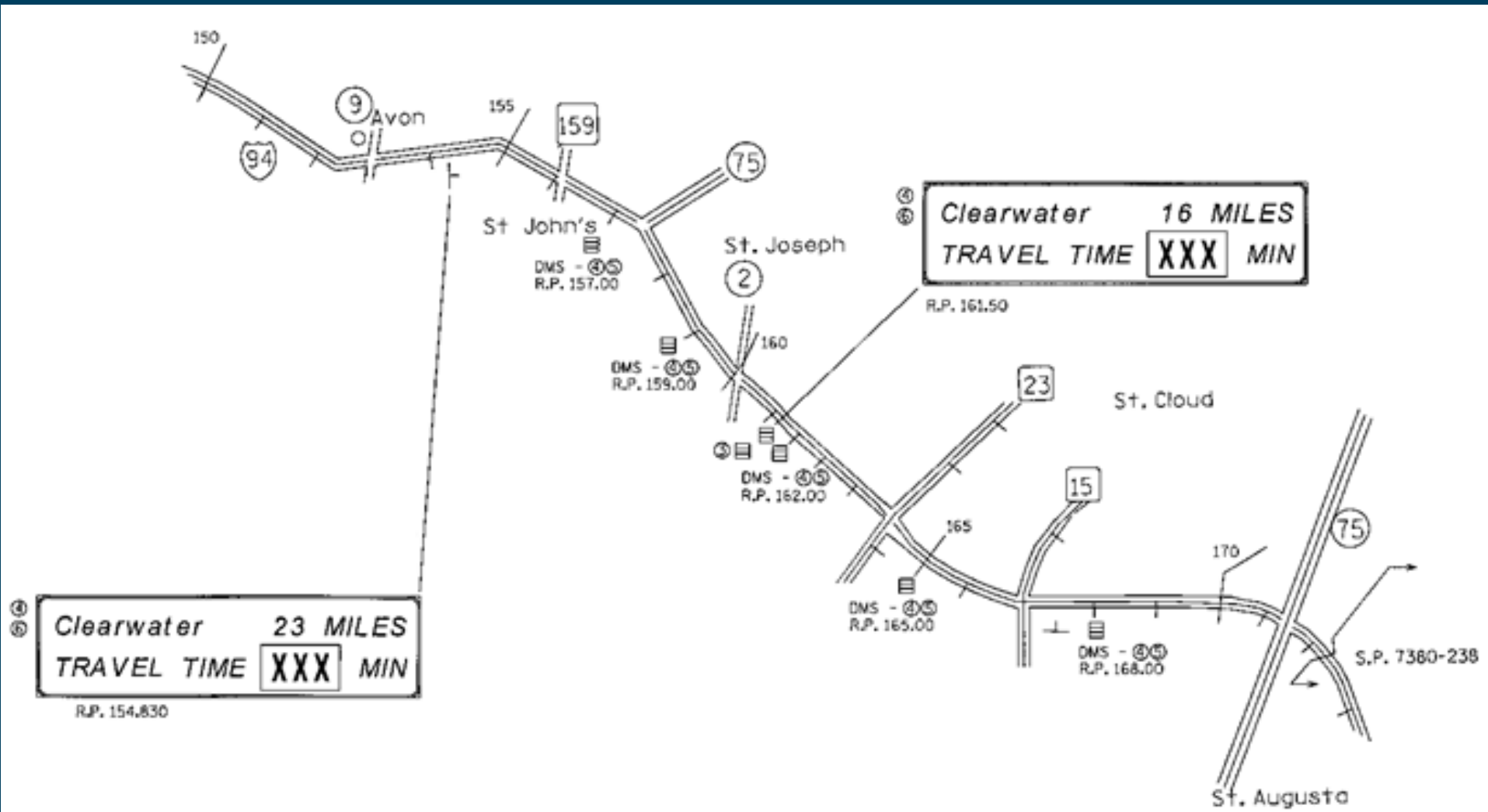
● Travel time advisory sign
Note: Dayton and Rogers travel time advisory not shown

Work zone
MnDOT and IWZ contractor provide detection

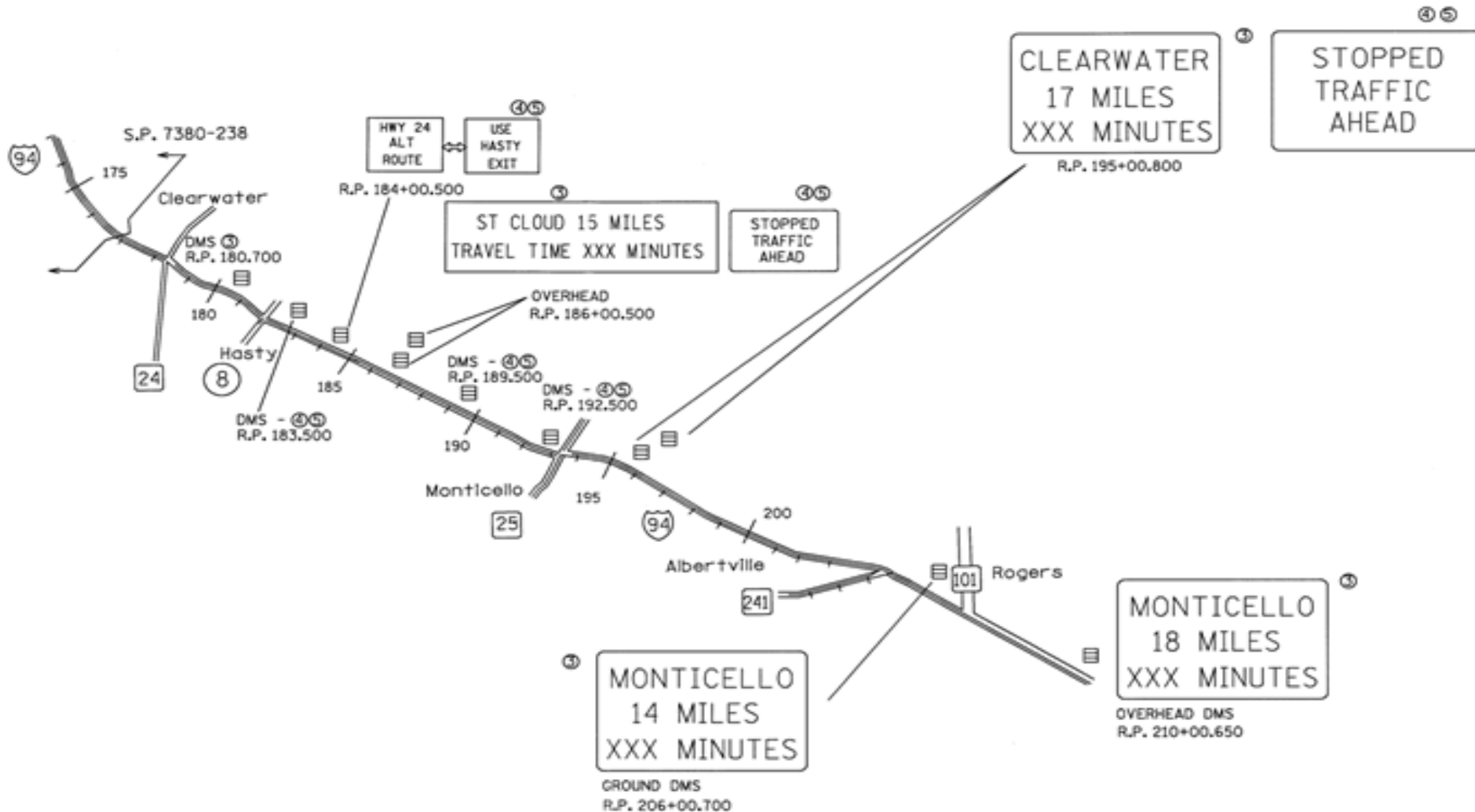
Westbound Section
MnDOT and IWZ contractor provide detection
SSR provides portable DMS
MnDOT determines and posts travel times



Eastbound I-94 Intelligent Work Zone



Westbound I-94 Intelligent Work Zone



Questions?

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



