Manufacturers’ Perspectives on Minnesota’s Transportation System

Results from west-central Minnesota

May 2015
Project Overview

- Gain input from manufacturers and carriers to inform MnDOT’s work in this region and support economic strength in Greater Minnesota
- Project structured to build ongoing relationships among MnDOT, regional businesses and economic development organizations
- Project approach was piloted in District 8 (southwest-ish Minnesota) in 2013 and improved and adapted for District 4
West–Central Minnesota (D4)

Cities > 5,000: Alexandria, Detroit Lakes, Fergus Falls, Moorhead, Morris

~4% of state population
~12% of state land area, 10K sq. miles

30 annual snow and ice events

3,600 lane miles of roadway

Interstate 94
Major routes: 10, 59, 29
Conducted 1:1 interviews

Cross-organization interview teams

- MnDOT District and Freight/Permitting Office engineers, planners, and others
- Local economic development organizations
- University of Minnesota SLPP and Extension
- Management Analysis & Development/MBB

103 businesses interviewed
November 2014 through January 2015
Interview scope

Identify improvement opportunities that are:
- Actionable within the next four years
- Low-cost/high-benefit improvements
- Doable with existing resources

Interview content

- Tell us about your business
- What are the challenges in shipping products?
- Tell us about your transportation needs

Opportunity to build and strengthen relationships
Business Selection – Industry Cluster Analysis

Focused on manufacturers and other businesses that bring economic resources and stable and well-paying jobs *into* the region.
Food processing and tourism included as key industries in west-central Minnesota
Countries that D4 businesses ship to include: Brazil, Canada, Chile, China, India, Japan, Jordan, Mexico, Russia, Singapore, Spain, Sudan, Turkey and Turkmenistan.
Key Findings

- Some infrastructure and maintenance requests are already planned or currently underway
- Proximity to a major artery, such as I–94, key for many businesses
- Affects of oil boom with driver shortages and increased rail use

Freight that used to be on rail has moved to trucks
Key Issues for Businesses

- Signage – improved and additional
- Acceleration, turn and passing lanes (not necessarily additional lanes)
- Snow and ice removal at key times
- Smooth pavement is important to prevent material and vehicle damage
- Construction project communication is key
- Permitting policy affects business practices
- Permitting process improvement suggestions
Infrastructure, Maintenance and Operations
Roundabouts: Mixed reviews

- Some roundabouts too narrow; prefer flattened curves
- Concerns from various haulers, not just oversized

However, fewer stoplights also preferred – reduces complete stops and starts
Signage and Warning Lights

- Advance warning and flashing stop signs
- Signage to identify truck routes, intersections and businesses
- Road designation changes, e.g., from state to county, may need additional signage
Lanes and Shoulders

• Acceleration, turning and passing lanes perceived to add safety and convenience
• Wide, paved shoulders preferred

*To accommodate wide loads, place rumble strips outside of fog lines*
Snow and Ice Removal

Expeditious snow and ice removal important on secondary state and county/local roads

Timing is important during shift changes and major input/output movement

Suggestions for more living snow fences
Road Conditions: Pavement

Smooth pavement important to prevent:

- Truck equipment damage
- Product damage (e.g., shaking bolts loose, dings and scratches)

- Products that get damaged:
  - Compressors
  - Machine components
  - Granite countertops
  - Gaming equipment
  - Boats
  - Concrete culverts
Road Construction

- Aspects of a well-managed road construction project experience:
  Feeling well-informed, good signage, traffic management, few delays

- Feedback on timing of projects and delays caused by detours:
  - All at once (not in sections year after year)
  - Only close lanes when actively working
  - Work at night (or not)
Communication: 511mn.org

- Businesses use 511 mainly in the winter, less for road construction updates

- Suggestions:
  - Provide cameras in more areas
  - Faster, more intuitive navigation
  - Provide estimates on re-openings
Early Benefits
Early Benefits: Parkers Prairie

A machine shop in Parkers Prairie requested a right-turn lane due to traffic volume and truck traffic.

The lane will be added to a 2016 Complete Streets project on Hwy 29.
Early Benefits: Ortonville

- “Hwy 12 is so narrow without shoulders”
- “Low visibility at four-way stops”
- “Dark corners”
- “Rough”

District 4 staff are reviewing potential solutions such as **widening the pavement** by two feet.
Early Benefits: Mahnomen

Shooting Star Casino, owned by the White Earth Nation (Anishinaabeg), expressed concern about pedestrians safely crossing Hwy 59.

MnDOT will incorporate a new pedestrian crossing into an existing 2017 construction project.
Conclusions

- The transportation system can have a significant impact for just-in-time and other businesses that have very tight margins
- Communication can make a difference; each conversation is unique and worth having
- Low-cost changes can provide significant benefits

Next Steps

- Analysis and integration of detailed findings
- Up next! Northwest Minnesota and a segment of MnDOT’s Metro District, and planning for statewide implementation