



Minnesota Department of Transportation

Vision

Minnesota's multimodal transportation system maximizes the health of people, the environment and our economy.

Mission

Plan, build, operate and maintain a safe, accessible, efficient and reliable multimodal transportation system that connects people to destinations and markets throughout the state, regionally and around the world.

Core Values

Safety, Excellence, Service, Integrity, Accountability, Diversity and Inclusion

Sample of Topics Researched by MnDOT Library Staff

MnDOT Library exists to support MnDOT's mission, vision, and values by providing research assistance to all offices and meeting the information needs of every employee. Our research topics cover a wide variety of questions, from multimodal transportation, safety, finance, environmental sustainability, to diversity, leadership and others.

The following topics are a small sample of customer requests over the last few years for research assistance. The research topics relate to MnDOT functions, programs and research projects.

- Do rumble strips really improve safety?
- How do we make quieter rumble strips?



Rumble strips

- I am looking for information on pedestrian survivability rates when struck by a vehicle based on vehicle speeds (i.e., chance of fatality when struck by vehicle traveling 20, 25, 30....50 mph).
- How do other state DOTs and metro planning organizations organize their pedestrian plans?
- I need to know about pedestrian safety including statistics and how to improve safety.



Pedestrians in crosswalk

- How can we safely accommodate bicycle transportation?



Bicyclists in marked bike lane

- Safety treatments for at-grade railway crossings



Railroad crossing sign

- How do we improve work zone safety?



Work zone

- I need information about the safety and cost benefit impacts of cable median barriers. Video at <http://youtu.be/JKoLkzDWUCM>



Cable median barrier

- I need information on the safety aspects of extra tall concrete median barriers.



Roadway with tall concrete median barrier

- What do we need to know about ADA compliance?



ADA compliant curb cut

- What impact does ramp metering have on safety and congestion?



Ramp meter

- We need to know about the roundabouts and how they impact safety and congestion.
Video - <http://youtu.be/FxuNIhJG4MM>



Roundabout

- I need information on elevated bicycle roundabouts.
<http://en.wikipedia.org/wiki/Hoverring>



Hoverring elevated bicycle and pedestrian roundabout - Photo from web

- What are the impacts of HOV (high occupancy vehicle) lanes?



High occupancy vehicle lane

- We need information on the impacts of high occupancy toll lanes. (In Minnesota, this later became known as MnPASS.)



MnPASS lane

- What is the economic value of barge traffic to Minnesota?



Barge on Mississippi River

- What are other states doing to develop their “adopt-a-highway” like programs?



Adopt a highway sign

- Automated Deicing of Bridges; safety, effectiveness, cost.



Spray head in bridge deck

- We need information on weigh in motion implementation.
Video - <http://youtu.be/eLlyKiiEfaY>



Weigh in motion device on road

- We need to learn about the traffic impacts and cost/benefit of managed lanes/smart lanes.
Video - <http://youtu.be/2E7G7YHd-Bk>



Smart lanes

- We need to know about light rail (LRT) systems; cost, effectiveness, safety, planning, etc.



Light rail car

- What are the safety and traffic impacts of changeable/variable message signs?



Variable message sign

- What are the cost/benefits of super single truck tires?



Truck with super single tires

- How can we do a better job of routing snow plows?



Snow plow

- What are the best practices for “complete streets?”
Video - <http://youtu.be/eybnVOMEX6w>



Mixed use street design

- Can we use ground penetrating radar to measure variations in overlay thickness?



Ground penetrating radar - Photo from web

- What are the impacts of bus only shoulders on traffic congestion and safety?



Bus running on road shoulder

- We need information on commuter rail programs at other states.



Northstar commuter train

- I need to know more about travel patterns and behavior of visually impaired travelers. (ADA)



Man using ADA compliant crosswalk

- We need information on the design and construction of noise walls.
- We need information on the environmental impact of treated lumber used in Noise walls on the environment.



Noise wall

- I need to know about using plants as snow fences; living snow fences.



Drifts created by living snow fence

- Plant toxins of poison ivy and Grecian Foxglove carried through the smoke of prescribed burns



Prescribed burn

- We need to know about ombudsman programs at other organizations.



- What do we need to consider when formulating a policy on the use of social media in the workplace?



Facebook logo - Photo from web



YouTube logo - Photo from web

Photo credit: All photos courtesy of David Gonzalez, MnDOT Photographer, unless otherwise noted.