

RESEARCH REVIEW: See Something – Say Something to Improve Roadway Safety and Save Lives

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“The North Dakota Department of Transportation (NDDOT) envisions a future with no motor vehicle crash fatalities and serious injuries on North Dakota roads. This prompted the launch of Vision Zero, North Dakota’s statewide initiative to reduce motor vehicle crash fatalities and serious injuries to zero. Vision Zero empowers the motoring public to take personal responsibility for safety when driving and riding in a motor vehicle and transforms the perception that vehicle crashes are not “accidents,” but predictable results of specific actions and they are preventable. Vision Zero advances strategies that reduce severe crashes through partnerships between public and private sector stakeholders. Every North Dakota citizen contributes to saving lives on North Dakota roads.”

– Karin Mongeon | Safety Division Director, North Dakota Department of Transportation

Motor vehicle crashes are the leading cause of injury related deaths in North Dakota.¹ Research shows that 94% of motor vehicle crashes can be attributed to human behavior (speeding, drinking and driving, not wearing a seatbelt, etc.)² North Dakota’s Vision Zero strategy aims to establish a culture of personal responsibility where motor vehicle fatalities and serious injuries are recognized as preventable and not tolerated. This includes implementing workplace traffic safety policies that support driver and passenger safety as well as infrastructure and road safety improvements.

What can local agency maintenance forces do?

Local agency maintenance forces are in the best position to be the “eyes and ears” for local agencies when it comes to identifying traffic safety situations, that when addressed, could greatly improve safety for the traveling public. These range from removing debris from the roadway to identifying the need for infrastructure improvements to addressing roadside hazards or improving roadway conditions such as ponding of water or drifting of snow on the roadway.

Each agency can contribute to improving the infrastructure and road safety by defining the significance of the roadway safety problems for all or their maintenance forces.

A summary of statewide crash data shows that the most common type of crash resulting in injuries in rural areas on North Dakota are lane departure crashes. During the last five years, 77% of single vehicle fatalities were rollover crashes and 11% were crashes with fixed objects such as trees, utility and light poles, traffic signs, and mailboxes.³ Intersection crashes are another leading cause of fatalities which account for about 20-30% of fatal crashes each year. About 81% of fatal intersection crashes and 81% of fatalities and 48% of serious injury intersection crashes occurred in rural locations. In addition, more that 80% were during dry conditions and more than 60% were during daylight hours.⁴



What can be done to address these road safety issues?

Each agency can be proactive in establishing and promoting roadway safety improvements that can be implemented by maintenance workers, by establishing policies and procedures that define roles and responsibilities. These policies and procedures must recognize maintenance tasks that impact traffic safety,

various potential responses and help maintenance workers to better understand their role in helping to improve safety on roads used by their family and friends.

These policies and procedures can be based on the well-known philosophy of “See Something – Say Something.”

How can I develop and implement roadway safety policies and procedures for my agency?

The first step is to understand the significance of the traffic safety problem for your jurisdiction. Procedures and policies need to address the specific needs in your county or location. Even though 94% of crashes are directly caused by driver behavior, roadway conditions contribute to more than 30% of these crashes. Situations like snow and ice, water on the roadway, edge drop-offs, fixed objects near the road and intersection sight distance are common issues that contribute to crashes.

Once these road safety needs are established, they need to be communicated to workers in your agency, so they are aware of the issues and problems and understand the reasons for policies and procedures. This includes ensuring everyone that it is acceptable to question and comment on these needs and to understand that it is part of their job to bring concerns forward to be addressed. Everyone should understand their role and responsibilities in implementing procedures to improve traffic safety on their roadways.

Look for these safety concerns in the field and take immediate corrective action

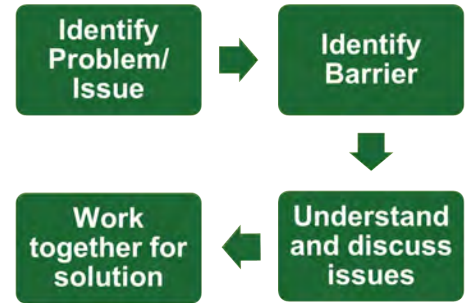
- Obstructions in roadway
- Drain covered in debris
- Traffic signal is out
- Missing signs
- Improper work zone signs
- Precipitation causing hazardous conditions
- Guardrail end treatment damaged

Report these concerns to a manager for corrective action

- Pavement cracked and rutting
- Shoulder drop-offs
- Missing bridge end clearance markers
- Signs that are damaged
- Signs that have no retro-reflectivity
- Poor or missing pavement markings
- Signs covered by vegetation
- Mailboxes in clear zone
- Non-compliant mailboxes
- Vehicles parked in the right-of-way
- Non-approved signs in clear zone
- Head walls/retaining walls/planters in clear zone
- Skid marks on roadway

The procedures should include:

- Identifying problems or issues where immediate corrective action should be taken either to remove the hazard or contact others to assist in addressing the situation or communicating the issue to others in a timely manner.
- Identifying any barrier to taking corrective action.
- Discussing and gathering information from others on their team, including agency managers, to fully understand the issues.
- Reviewing possible solutions and remedies and developing consensus on actions to be taken and who should take these actions.



Where can I find assistance to address concerns that are identified?

Your Local Technical Assistance Program (LTAP) can provide training, research reports, example policies, and can put you in touch with other agencies that have dealt with the same situation. Working with your LTAP not only provides you with the most recent solutions but is valuable to the LTAP personnel in understanding the various issues and being able to coordinate and collaborate on solutions between you, other highway managers, and technical experts in finding reasonable and appropriate solutions. For North Dakota the LTAP center can be reached at <https://www.ndltap.org/>

The Minnesota Local Road Research Board (LRRB) developed a workshop on “Maintaining a Safer Roadway” that provides education to maintenance staff on how they can make our roads safer. Local agency maintenance forces are in the best position to be the “eyes and ears” for local agencies when it comes to identifying situations, that when addressed, could greatly improve safety for the traveling public. This workshop report can be viewed at <http://www.dot.state.mn.us/research/TS/2010/2010RIC03.pdf>

Resources

1. Centers for Disease Control and Prevention
2. Human Factors of Highway Safety, Elizabeth Alicandri
3. <https://visionzero.nd.gov/statistics/>
4. https://visionzero.nd.gov/uploads/65/SHSP_Intersection_PEA2019_20102019Final.pdf

