

APPENDIX J - Speed Action Plan

Introduction

Speed is one of nine emphasis areas of the North Carolina Strategic Highway Safety Plan (SHSP). This emphasis area includes serious injuries and fatalities related to excessive or unsafe speeds.

State of the Problem

Speeding continues to persist as a highway safety problem in North Carolina. In 2013, approximately 319 fatalities and 407 serious injuries in North Carolina were speed-related. Higher speeds lead to less time for a driver to react to a situation on the road and a higher severity impact if a crash occurs. The North Carolina General Statutes (§20 – 141) refer to speeding as driving at a “speed greater than is reasonable and prudent under the conditions then existing,” while the State crash report form (Form DMV-349) defines speeding as either exceeding “authorized speed limit” or exceeding “safe speed for conditions.” Table J-1 shows speed-related crash trends in North Carolina from 2009 – 2013. It is important to note that Table J-1 and the speed-related data in the

SHSP reflect the definitions of speeding that are found on the State crash report form.

Speeding has been reported as a contributing factor in North Carolina fatal crashes more often than alcohol intoxication or lack of seatbelt (Thomas et al., 2013). Several recent resources provide actions and strategies to combat the speeding problem on our State’s roads. The Governor’s Highway Safety Program (GHSP) included a speed-related goal in its FY2014 Highway Safety Plan in which the target is to reduce speed-related fatalities by 25 percent through increased police traffic services. The North Carolina Department of Transportation (NCDOT) developed a document entitled, “North Carolina Speed Management: Recommendations for Action” in 2013 that presented key strategies, including engineering, enforcement, education, and other strategies (Thomas et al., 2013).

Emphasis Area Goal

In 2013, there were 319 fatalities and 407 serious injuries from speed-related crashes. The goal for this emphasis area is to reduce speed-related fatalities and serious injuries.

Table J-1: North Carolina Speed-Related Crash Trends (2009 – 2013).

	2009	2010	2011	2012	2013	Annual Avg.
Crashes	23,894	23,225	16,711	15,561	18,166	19,511
Fatalities	405	383	335	334	319	355
Serious (A) Injuries	630	517	483	475	407	502
All Injuries (A, B, C)	13,199	12,540	9,825	9,355	9,817	10,947

Strategies and Supporting Actions

The following strategies have been established as priorities for North Carolina to combat speeding-related crashes. Listed below each strategy are several recommended actions to support it, as well as one or more North Carolina agencies identified as having a potentially significant role in its implementation and the current status of the action.

Strategy 1

Set speed limits that are appropriate for the roadway type, area type, and current conditions.

Supporting Actions

1. Standardize methods for setting speed limits and train engineers. This would involve developing a standard method for setting speed limits that could be implemented in a consistent manner statewide and training engineering staff in this method. This idea was also recommended in the North Carolina Speed Management Recommendations for Action (Thomas et al., 2013) with a focus on using an injury minimization approach to establish appropriate limits. A key part of this action would be the training of engineers to use the standard method for setting speed limits. Currently, NCDOT engineers do not get any formal classroom or field training in setting speed limits. It is left up to experienced engineers in their unit to provide “in-the-field training.” This leads to many different speed limit setting philosophies and practices in the NCDOT Divisions and Regions of the State. There is an evident need to standardize the speed limit procedure and training to achieve statewide consistency.

Potential Implementing Agencies: NCDOT

Status: Needed

2. Evaluate the method for determining advisory speed limits on curves. There is a potential need for an updated method for setting curve advisory speeds that can be used consistently throughout the State. The current method will be evaluated to determine the need for revision.

Potential Implementing Agencies: NCDOT

Status: Needed

3. Explore the potential benefits of a variable speed limit system. With current technology, it is possible to have a system where the speed limit is changed dynamically in response to the current conditions on the roadway. Such conditions may be weather-related (e.g., fog in mountainous areas) or traffic conditions (e.g., congestion related to peak hour traffic or a crash on the roadway). This action could begin with a pilot study to test the implementation and evaluate its feasibility and effect on speed. This idea was also recommended in the North Carolina Speed Management Recommendations for Action (Thomas et al., 2013).

Potential Implementing Agencies: NCDOT

Status: Needed

4. Evaluate roads in rural areas to determine if the statutory speed limit should be lowered. The statutory speed limit of 55 mph may not be appropriate for many rural roads, especially those not meeting modern design standards. This action would set the statutory rural speed limit to 45 mph and allow a speed limit of 55 mph only as intentionally determined by NCDOT. This idea

was also recommended in the North Carolina Speed Management Recommendations for Action (Thomas et al., 2013). The evaluation of rural roads will consider the presence of design features, such as paved shoulders, lane widths, and the presence of Safety Edge.

Potential Implementing Agencies: NCDOT

Status: Needed

Strategy 2

Explore new avenues of enforcement and penalties.

Supporting Actions

1. Implement a uniform system for speeding offenses that includes civil penalties. This proposed system would be structured as a uniform system of penalties that would assign civil penalties for certain lower levels of speeding offenses. The ECHS proposed a system with five different classes of speeding (0-10 mph over, 11-15 mph over, 16-20 mph over, etc.) with the lower penalties starting at civil, followed by criminal charges for the higher levels (Executive Committee, 2005). The benefits of this system are an increased expectation by drivers for receiving penalties when caught speeding and a lower caseload for the court system. This idea was also recommended in the North Carolina Speed Management Recommendations for Action (Thomas et al., 2013).

Potential Implementing Agencies:

Various advocacy groups

Status: Needed

2. Increase the use of automated speed enforcement. The use of automated enforcement would supplement traditional enforcement and provide wider coverage that would lead to an

increased expectation of being caught and penalized for speeding, and should result in an increase in population-wide deterrence. This idea was also recommended in the North Carolina Speed Management Recommendations for Action (Thomas et al., 2013).

Potential Implementing Agencies: NCDOT, Law enforcement, Legislative liaisons

Status: Needed

Strategy 3

Investigate and address problem locations.

Supporting Actions

1. Implement network screening to identify corridors in need of further review. This data-based approach would use roadway, ordinance, and crash data to proactively identify locations on the roadway network that are most in need of attention. This approach would identify a set of locations (e.g., intersections, curves, etc.) per region and inform the managing agency that the locations fall into a category that indicates a need for review. Such review may lead to an adjustment of the speed limit, enhancement of enforcement, modification of the road design, or other safety countermeasures.

Potential Implementing Agencies: NCDOT

Status: Planned

Strategy 4

Engage stakeholders to create a culture of safe speed.

Supporting Actions

1. Develop toolkit for communities to build anti-speeding program. It takes the involvement of

many parties to create a culture that encourages and expects safe speeds. Such parties include law enforcement, roadway designers, driver educators, and drivers themselves. The SHSP will encourage the creation of anti-speeding campaigns and programs in North Carolina communities by developing a toolkit of resources and examples for conducting such programs. The toolkit would include measures that are likely to be successful (with expected safety benefits of different treatments) and tips on important implementation considerations to maximize chances of success. One example was conducted in Johnston County, with a program that targeted teen driving safety. Each Johnston County high school has a Teen Drivers chapter that speaks to each group of students and parents that attend the informational sessions required before students are allowed to take Driver Education. Speed is just one of the items the JoCo Teen Drivers speak on at the informational sessions.

Potential Implementing Agencies: NCDOT, NCDMV, NCDPI, NCSHP, Community groups

Status: Needed

2. Support the “Vision Zero” initiative of the Governor’s Highway Safety Plan. The central premise of Vision Zero is to communicate to the public that the stakeholders of highway safety—including the actions recommended in the SHSP—are each focused on reducing and, to the extent possible, eliminating highway fatalities. This initiative has the potential to serve as the public image for all highway safety outreach and marketing efforts, while promoting efforts within the individual areas (like the SHSP does for the

engineering side). The Vision Zero initiative will complement existing highway safety marketing programs, and the SHSP will support Vision Zero through a detailed description of actions that are needed, planned, and underway to reduce highway fatalities. This action is also related to an action in the emphasis area for Emerging Issues and Data that seeks to increase public awareness of road safety through the use of the many different types of safety data.

Potential Implementing Agencies: NCDOT, NCDMV

Status: Underway

Working Group Members

The working group for this emphasis area includes the following representatives from five agencies committed to achieving the goals of this Action Plan:

- Julian Council, North Carolina Division of Motor Vehicles
- Haywood Daughtry, North Carolina Department of Transportation
- Greg Ferrara, NCSU Institute for Transportation Research and Education
- Daniel Findley, NCSU Institute for Transportation Research and Education
- Reginald Flythe, North Carolina Department of Public Instruction
- Bucky Galloway, North Carolina Department of Transportation
- Terry Hopkins, North Carolina Department of Transportation
- Brian Mayhew, North Carolina Department of Transportation

- Chris Oliver, North Carolina Department of Transportation
- Libby Thomas, UNC Highway Safety Research Center

Supporting Material

- North Carolina Executive Committee for Highway Safety, Speed Working Group, “Safe Speed Act; Establishing Uniform Sentencing for Speeding Offenses”, February 2005.
- North Carolina Governor’s Highway Safety Program (GHSP), FY2014 Highway Safety Plan, North Carolina Department of Transportation, June 2013.
- Thomas, L., R. Srinivasan, W. Hunter, E. Rodgman, North Carolina Speed Management Recommendations for Action, Prepared for NCDOT, Transportation Mobility and Safety, Project 2011-08, August 2013.