

## **NCHRP 20-68A – US Domestic Scan Program**

### Scan 09-03 Best Practices In Solutions for Lane Departure Avoidance and Traffic Calming

#### **Topic Description**

Following the publication of NCHRP Report 500, Volume 6: “A Guide for Addressing Run-Off-Road Collisions” in 2003, many DOTs have identified Lane Departure as an action area in their state’s Strategic Highway Safety Plan. In April 2008, AASHTO published the document “Driving Down Lane-Departure Crashes – A National Priority” which highlighted a number of lane departure remedies. These remedies emphasize the need to more actively address the causes of lane-departure crashes and to develop/implement countermeasures to reduce them. Many crashes are caused by excessive speeds along high-speed rural highways (other than freeways), where drivers often fail to recognize risks inherent in these types of facilities. An important circumstance is where the facility intersects a major at-grade highway or on the approach to or as it passes through towns and other built-up areas or transition areas. A number of states have implemented measures, but their nature and effectiveness are not broadly known. A scan of states which have implemented lane departure strategies either system wide or at spot locations to review the impact of these strategies in crash reduction, implementation costs and the impact on road users would benefit all road agencies in addressing lane departure issues.

This Scan will visit traffic engineering and/or highway design agencies in states where innovative traffic calming/speed reducing measures have been deployed. The Scan will provide information on the various techniques that are successful in lowering vehicle speeds on high speed non-freeway highways at or approaching locations and situations where lower speeds are critical to safety.

Specific items of interest include:

- Identification of lane departure crash locations (site specific vs. system wide)
- Identification of lane departure strategies
- Identification of best practices and the conditions under which each is applicable.
- How are lane departure strategies being implemented
- Are these strategies having other effects on the facility?
- Improvements in new design processes, to reduce highway departure accidents
- Context sensitive design considerations in lane departure projects.

Information obtained from this scan will provide state and local engineering agencies with information on successful strategies employed by others in addressing lane departure safety issues. This information will be particularly important to those who have responsibility for highway safety on high speed highways and greatly assist in reducing highway fatalities associated with these types of crashes.

#### **Original Scan Proposal Title**

1. Calming Expressways and Other Major High-Speed Rural Roads
2. Context Sensitive Design Solutions for Lane Departure Strategies

*Last Reviewed/Revised October 26, 2010*

## Scan Team Membership

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## Execution Schedule

<b>Milestone</b>	<b>Anticipated Date</b>
Chairs and Team Members Identified	May, 2010
Desk Scan Completed	August, 2010
Prescan Meeting Held	August, 2010
Scan Conducted	November-December, 2010
Draft PowerPoint submitted by SME	January, 2011
Draft Report Delivered to NCHRP and Panel	March, 2011
Final Report Delivered to NCHRP	February, 2013

## Estimated Scan Cost and Funding

Actual Duration: 2 week

*Last Reviewed/Revised March 14, 2013*