

NCHRP 20-68A – “US Domestic Scan Program”

Scan 08-04 Best Practices in Work Zone Assessment, Data Collection and Performance Measurements

Description of Scan

Effective management of work zone impacts requires appropriate assessment of these impacts. Growing congestion coupled with an increasing need to perform work under traffic present complex challenges to maintaining work zone safety and mobility. Work zones account for an estimated 24% of non-recurring congestion and 10% of overall congestion. Additionally, the number of work zone fatalities has exceeded 1,000 for each of the last 5 years. The recently-updated Work Zone Safety and Mobility Rule requires transportation agencies to use field observations, available work zone crash data, and operational information to manage work zone impacts for specific projects during implementation, and to continually pursue improvement of work zone safety and mobility by analyzing work zone crash and operational data from multiple projects to improve State processes and procedures. Many agencies have little experience in collecting and analyzing work zone performance data beyond crash and fatality reporting.

This scan will address traffic monitoring and management practices in and around work zones to ensure safety and minimize congestion. Specifically, this scan will examine processes and methods used to assess impacts during various stages of project development and look at such items as:

- Data sources/availability
- Regional impact considerations
- Tool selection
- Tool calibration
- Project selection
- People involved
- How results are used
- Benefits
- Costs

The scan would address current practices in work zone performance measurement – what safety and congestion/operational performance measures States are using; how they are collecting the data for the measures; and how they are using the data to make improvements in work zone performance and management. The scan would address the role of technology and cover both high-tech and low-tech monitoring methods.

The scan will examine and lead to the sharing of information on what some States have done to develop work zone performance measures, collect data to track measures, and use that data to make improvements to processes, specifications, and practices used for work zone planning, design, and construction. The primary benefactors would be State DOTs, with others including contractors, consultants, and municipalities also benefiting from the scan’s findings. It is anticipated that these findings would include Identification of best practices., case studies of approaches and results, including documentation of benefits and lessons learned. Ultimately this will help lead to improvements in mobility, safety, customer satisfaction, and possibly durability through improved construction practices and materials which also translate into a longer duration before the next work zone needs to be established.

Original Scan Proposal Title:

1. Best Practices In Assessing Work Zone Impacts.
2. Work Zone Data and Performance Measurement Practices

Last Reviewed/Revised October 26, 2010

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Execution Schedule

Milestone	Anticipated Date
Chairs and Team Members Identified	June, 2009
Desk Scan Completed	November, 2009
Prescan Meeting Held	November, 2009
Scan Conducted	March, 2010
Draft PowerPoint submitted by SME	April, 2010
Draft Report Delivered to NCHRP and Panel	July, 2010
Final Report Delivered to NCHRP	March, 2011

Estimated Scan Cost and Funding

Actual cost: and duration: \$ 201,300 2 week
 Anticipated fund from FHWA: \$ 50,000

Last Reviewed/Revised July 20, 2010