U.S. DOMESTIC SCAN PROGRAM
SUBCOMMITTEE ON MATERIALS AUGUST 2012
RICK KREIDER (KS)
Domestic Scan Program
NCHRP 20-68: What it is…

- Information exchange ↔ innovation
- Personal contacts ↔ information exchange
- Body of knowledge ↔ personal contact
- Knowledge network ↔ virtual community
It’s all about getting the right information to the right people.

SCAN TEAM REPORT
Scan 07-05

Best Practices In Bridge Management Decision-Making

Supported by the
National Cooperative Highway Research Program

The information contained in this report was prepared as part of NCHRP Project 20-68A U.S. Domestic Scan, National Cooperative Highway Research Program.

SPECIAL NOTE: This report IS NOT an official publication of the National Cooperative Highway Research Program, Transportation Research Board, National Research Council, or The National Academies.
Domestic Scan Program
NCHRP 20-68: Project Panel

- Harold R. (Skip) Paul, Louisiana Transportation Research Center, Chair
- Shane Brown, Washington State University
- Nancy Chinlund, California DOT
- Marsha Fiol, Virginia DOT
- Rick Kreider, Kansas DOT
- Glenn Roberts, New Hampshire DOT
- Amy Schutzbach, Illinois DOT
- Mark Van Port Fleet, Michigan DOT
- David M. (Mike) Burk, FHWA liaison
- Keith M. Platte, AASHTO liaison
- Mark R. Norman, TRB liaison
- Andrew C. Lemer, TRB staff
Domestic Scan Program

NCHRP 20-68: Key Steps … Varied Techniques

• Select Topics and Refine Scopes
  AASHTO Committees and FHWA

• Conduct and Document Scans (3 scan types)
  Scan Teams (go to innovators), Webinars (bring innovators to interested parties), 1-2 day workshops (innovator-hosts)

• Disseminate Results (reports, webinars, missionary work, other)
  NCHRP, FHWA, Scan-team Members, TRB, Others
Recently Completed

NCHRP Project 20-68A
Scan 00-05

Best Practices For Roadway Tunnel Design, Construction, Maintenance, Inspection, And Operations

Supported by the National Cooperative Highway Research Program

April 2011

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Recently Completed Workshop

Scanning the Range of Business Concerns

Two successful pilot scans in 2006 led to the funding of the ongoing U.S. Domestic Scan Program through NCHRP Project 20-68A. The first six scans that were launched after the pilots are the subject of an evaluation study by CTC & Associates LLC, Accelerating the Rate of Innovation Among State DOTs—Tracing Domestic Scan Impacts, which started in May 2010. An additional 13 scans are in progress or have been completed. For more details, see the online Prospectus and Status of Programmed Scans.

Following are the topics and dates of domestic scans:

- Transportation Asset Management (pilot), August–September 2006
- Right-of-Way and Utilities Relocation (pilot), July 2006
- Project Delivery Management, February–March 2009
- Accelerated Construction Techniques, March 2009
- Winter Maintenance, March–April 2009
- Bridge Management Decision Making, May–June 2009
- Managing STIPs, TIPS, and Metropolitan Transportation Plans In Response to Fiscal Constraints, June 2009
- Addressing NPDES and Other Water Quality Issues In Highway System Management, July 2009
- Maximizing Traffic Flow on Existing Highway Facilities, November 2009
- Work Zone Assessment, Data Collection, and Performance Measurements, March 2010
- Quality Control–Quality Assurance of Design Plans, October–December 2010
- Solutions for Lane Departure Avoidance and Traffic Calming, November–December 2010
- Successful Strategies for Motorcycle Safety, March–April 2011
- Risk-Based Forecasts of Land Volatility for Corridor Management and Sustainable Communities, October–November 2011
- Addressing Access and Parking Needs of Nonresident Users of Rail and Intermodal Transportation Stations In Transit-Oriented Developments, June 2011
- Performance Measuring for Highway Maintenance and Preservation, October 2011
- Regional, Multiagency Traffic Signal Operations Management, November 2011
- Privatization of Maintenance Functions, June 2012
- Performance of Accelerated Bridge Construction Connections In Bridges Subjected to Multihazard and Extreme Events, April 2012

Scan Members

(Back row, L to R)
- Lonnie D. Hendrix, Arizona DOT
- Nancy Albright, Kentucky Transportation Cabinet
- Don Hillis, Missouri DOT

(Front row, L to R)
- Luis Rodriguez, FHWA
- Jennifer Brandenburg, North Carolina DOT
- Russell A. Yurek, Maryland State Highway Administration, Scan Chair
- Katie Zimmerman, Applied Pavement Technology, Inc., Subject Matter Expert
- Matt Haubrich, Iowa DOT

The prospectus above includes a membership roster with contact information.
Domestic Scan Program on the internet...

http://www.domesticscan.org/
Welcome

What's New
About this Website

The U.S. Domestic Scan Program facilitates technology transfer among state departments of transportation on a variety of topics. Scans help accelerate dissemination of information among states and lead to quicker implementation of new technologies and practices.

This website serves three main purposes:

1. Provides information about the Domestic Scan Program (NCHRP Project 20-68A) and individual scans, including final reports, team members and sites visited.
2. Describes research to measure and trace scan impacts (NCHRP Project 20-68B).
3. Encourages scan team participants to record follow up implementation and dissemination activities.

The U.S. Domestic Scan Program was developed by the American Association of State Highway and Transportation Officials and is administered through the National Cooperative Highway Research Program, which engages state partners to identify all.
Domestic Scan Program

- Annual meeting is December, 2012
- Deadline for submittals is:
  - CY 2013 — October 15, 2012

Possible Materials’ Topics:

- Ground Tire Rubber
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- Ground Tire Rubber

**Manufacturing Process**
Currently RAC is specified by the Greenbook, 2009 Edition, Standard Specifications for Public Works Construction and by Caltrans. RAC can be manufactured and placed satisfactorily using either specification.

There are two processes used to add crumb rubber to liquid asphalt cement.

**Asphalt-Rubber Process**
The asphalt-rubber process is any method that mixes and reacts the rubber particles with the asphalt cement prior to adding the resulting binder to the aggregate. This process has the longest history of use and is the basis for the Caltrans reduced thickness design. Asphalt-rubber is field blended and requires special equipment at the hotmix plant to react the crumb rubber with the asphalt cement.

**Terminal Blend Process**
The terminal blend process digests the crumb rubber into the asphalt cement at the refinery (or asphalt terminal). This process has been used in Texas since 1989 and in California since the mid-1990s. The terminal blend process does not require special equipment at the hotmix plant.

**Cost Comparison**
In most applications, RAC can be used at a reduced thickness compared to conventional asphalt overlays—in some cases at half the thickness of conventional material—which may result in significant material reduction and cost savings. In addition there may be lifecycle cost savings from the reduction in maintenance costs and longevity of RAC.

- For example, when soil/deflectometer testing indicates that a 4-inch overlay of conventional asphalt concrete is required, RAC saves up to $75,000 per lane mile over conventional asphalt concrete.

Visit [www.PavingGreenRoads.com](http://www.PavingGreenRoads.com) and the Rubberized Asphalt Concrete link for more technical information and cost comparisons.
In addition, submissions should adhere to the following guidelines to ensure that they are not delayed from consideration:

- Proposals may be submitted by an AASHTO committee or an FHWA office.
- Proposals should follow the basic format outlined in the Blank Domestic Scan Proposal.

To help get you started, click on the following link to see the several sample Scan proposals: Sample Scan Proposals.

Deadlines for Submission

The NCHRP 20-88A panel meets once a year, usually in December. Proposals are due two months prior to this meeting and should be submitted online using the "Submit Domestic Scan Proposal" link on the left. The deadlines for upcoming submissions are as follows:

Submission Deadlines

- CY 2013 — October 15, 2012

Additional Information

Click here for the NCHRP web site for this program, which provides summaries and status of all projects funded through Project 20-88A.
AASHTO is soliciting topic proposals for a CY 2013 US Domestic Scan Program (NCHRP Panel 20-68A). Each selected scan topic will be investigated through site visits to three to six locations over a one or two week period, conducted by a group of eight to 12 transportation professionals with expertise in the selected topic area. Proposed topics should meet the following criteria:

- Address an important and timely need for information by transportation agencies;
- Are of interest to a broad national spectrum of people and agencies;
- Are complex and also “hands-on,” meaning they lend themselves particularly well to exploration through on-site visits; and
- Are sufficiently focused that the tour participants are able to investigate and understand key issues in the limited time available on the tour.

Proposals should be submitted on this website no later than October 15, 2012.
# Domestic Scan Proposal Form

AASHTO is soliciting topic proposals for a Calendar Year 2013 US Domestic Scan Program (NCHRP Panel 20-68A). Each selected scan topic will be investigated through site visits to three to six locations for approximately a two week period or less (type 1), by webinar (type 2) or peer exchange (type 3) conducted by a group of eight to 12 transportation professionals with expertise in the selected topic area. Proposed topics should meet the following criteria:

- Address an important and timely need for information by transportation agencies;
- Are of interest to a broad national spectrum of people and agencies;
- Are complex and also “hands-on,” meaning they lend themselves particularly well to exploration through on-site visits; and
- Are sufficiently focused that the tour participants are able to investigate and understand key issues in the limited time available on the tour.

This form is designed to collect the full length of your proposal. Sections requiring essays have unlimited space for you to use. Contact information has some limited text. *Use your TAB key to advance to the area where you need to complete information.*

Proposals should be returned no later than **OCTOBER 15, 2012.**

## Proposal Contact Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>E-mail</td>
</tr>
<tr>
<td>Member Department</td>
<td>Telephone number</td>
</tr>
<tr>
<td>AASHTO Committee</td>
<td>Date of submission</td>
</tr>
</tbody>
</table>

## Title of Proposed Scan


## Problem Statement
(What topic is to be examined? What drives the need for the scan? Why now?)


## Scan Scope
(What specific subject areas are to be examined? Which cities and states might be visited? Which agencies/organizations (including specific departments or types of staff if applicable)?


## Anticipated Scan Results
(What key information is to be gained? What information is to be shared after the scan? Who would the audience be for this information?)


## Benefits Expected
(Including potential impacts on current technology or procedures)
Thank You!