TRANSPORTATION RESEARCH BOARD

OF THE NATIONAL ACADEMIES

April 9, 2004

Ms. Mary E. Peters Administrator Federal Highway Administration Room 4218 400 7th Street, SW Washington, D.C. 20590

Dear Administrator Peters:

The Research and Technology Coordinating Committee (FHWA) met on March 8-9, 2004, at the Keck Center of the National Academies. The enclosed meeting roster indicates the members, liaisons, guests, and TRB staff in attendance. On behalf of the committee, I thank FHWA for its continuing interest in the work of RTCC. I also thank and commend the FHWA staff for their participation in the meeting. The committee appreciates the participation of Rick Capka, FHWA's Deputy Administrator, and the presentations made by Dennis Judycki, Cindy Burbank, and Marci Kenney, as well as other FHWA staff who contributed to the meeting.

This letter is an intentionally brief summary of the meeting; information about the committee's future activities and meetings is also provided. The report is organized under five main topics. The first topic is local/regional stakeholder involvement in highway R&T programs, a committee initiative of interest both to FHWA and the committee. The following four topics are then described: FHWA Environment, Planning, and Realty research and technology (R&T) program; the status of laboratory assessments at FHWA's Turner-Fairbank Highway Research Center; the status of the reauthorization of the surface transportation program; and the identification of several new topics to be considered by the committee for future work.

Local/Regional Stakeholder Involvement in Highway R&T

The meeting featured a panel discussion by individuals who interact regularly with local and regional transportation officials, including representatives of the Research Advisory Committee of the American Association of State Highway and Transportation Officials and state Local Transportation Assistance Program (LTAP) centers. The participants included the following: Gary Allen, Virginia Transportation Research Council; Dave Huft, South Dakota Department of Transportation (DOT); Dave Johnson, Minnesota DOT; Barnie Jones, Oregon DOT and Technology Transfer Center; Larry Klepner, Delaware Transportation Technology Transfer Center; Bill Pogash, Pennsylvania DOT; and Ed Stellfox, Maryland Transportation Technology Transfer Center. Staff presented stakeholder involvement in highway research programs and reviewed the results of a previous panel of association representatives who work closely with local and regional transportation agencies. This was followed by a discussion that yielded considerable information on how individual state DOTs interact with local and regional stakeholders in their research and technology transfer programs.

Each panelist described how issues of interest to local and regional transportation agencies are considered by research program managers and also how information about transportation innovation and technical assistance is transmitted to local agencies. The panelists described both formal and informal mechanisms they use. They noted that local and regional stakeholders are involved in typically some, but rarely all, aspects of their research and technology transfer programs. Moreover, it was noted that while local and regional stakeholders, especially those in small counties and towns, may be less knowledgeable about technologies and innovation, they are very knowledgeable about local politics and budget processes, which are key components of the process of implementing research results. The panelists also observed that the mechanisms connecting state DOT research programs to local and regional stakeholders focus primarily on transferring information and assistance from the federal and state levels to local and regional agencies. With the notable exception of Minnesota's Local Road Research Board and Iowa's Highway Research Board, local and regional stakeholders are not regularly being consulted about problems they face that are amenable to research. Some mechanisms already in place, such as the LTAP (Local Technical Assistance Program) and TTAP (Tribal Technical Assistance Program) centers and advisory panels to state research programs, have the potential for such consultation.

RTCC members Sandra Rosenbloom and Michael Ryan prepared a summary of the discussion, which is attached to this letter report as Appendix A. Some panelists noted that while existing mechanisms can encourage and enable greater stakeholder involvement of local and regional agencies and practitioners, limited resources might make it difficult. Panelists stressed the desirability of providing information on research results that is quick and easy for local and regional agencies to obtain and assimilate and that encourages them to seek out more detailed information and assistance as needed.

The committee plans to document its activities on this topic and prepare a summary report of its findings. Details will be finalized before the committee's next meeting.

Update of Office of Planning, Environment, and Realty R&T Activities

Cindy Burbank, Associate Administrator for Environment, Planning, and Realty, reviewed the activities of her office. She emphasized the breadth of topics and activities the office addresses and described how it often combines research results with other mechanisms such as legislation, regulations and guidance, coordination, and training and partnerships to provide information, tools, and technical assistance that state, regional, and local agencies need. In light of the many topics this office addresses, it is required to interact with a wide variety of stakeholders.

The committee was pleased to learn that the office is developing research roadmaps¹ and supporting the proposal for a cooperative environmental research program. The committee was particularly interested in current efforts aimed at strengthening its research evaluation process. These initiatives support the agency's Corporate Master Plan for Highway R&T, which the RTCC has endorsed. As the office progresses in these key research management tasks, the committee stands ready to assist it in any way it can to review and assess progress and achievement.

Status of the Implementation of the Corporate Master Plan for Highway R&T

FHWA staff, led by Dennis Judycki, reported on the status of agency efforts related to its Corporate Master Plan for Highway R&T. Mr. Judycki noted that research roadmaps are being prepared. Agency progress toward preparing research roadmaps in support of the agency's strategic plan for R&T is commendable. The committee looks forward to reviewing them when they are completed. The details provided for the research program activities in the Office of Environment, Planning, and Realty were helpful in this context as well, and the committee looks forward to reviewing the details of such activities for other research program areas at future meetings.

Assessment of TFHRC Asphalt Labs

Marci Kenney, Director of the Office of R&T Program Development and Evaluation, reported on the completion of the assessment of the asphalt pavement labs at TFHRC and the plans under way for two additional assessments in 2004. The committee appreciates the extent to which FHWA staff has incorporated many of the committee's previous suggestions about assessment procedures. The committee also appreciates the opportunity to review the assessment activity and the lists of potential future assessment participants for the next two assessments.

Topics for Future Committee Study

The committee identified several potential topics for its future work that could be of value to FHWA's R&T program. Three topics were chosen for further consideration: effects of earmarking of federal highway R&T funds; research program performance measures; and inventory and review of private-sector and state DOT highway research programs. Staff was asked to prepare background material for each of these topics for further discussion at the next meeting. A fourth topic, cooperating with and drawing upon highway research activities in other countries, is currently being addressed in several forums at this time, and staff was asked to accumulate preliminary information for further discussion. The committee will discuss these topics at its next meeting and decide which to pursue in more detail.

¹ Research roadmaps are designed to provide researchers and decision makers with a quick sketch—using text and graphics with project timelines—of ongoing research program activities.

Future Meeting Plans

The committee's next meeting is scheduled for June 14-15, 2004, in Woods Hole, Massachusetts.

Final Remarks

In closing, the committee again expresses its appreciation for the very constructive participation and presentations of FHWA staff in its meeting. The committee remains hopeful that the reauthorization process will provide the agency with the tools to effectively carry out the work outlined in the agency's Corporate Master Plan for Highway R&T.

Sincerely,

C. Michael Walton Chair Research and Technology Coordinating Committee (FHWA) Enclosure

Meeting Attendance: Committee, Liaisons, Guests, and Staff March 8-9, 2004

Committee

C. Michael Walton (NAE), Chair E. Dean Carlson John Conrad Reid Ewing Cash Misel Karen Miller Tim Neuman

Sandra Rosenbloom Michael Ryan Len Sanderson Albert Teich Kevin Womack Paul Wells

Liaisons and Guests

Gary Allen, Virginia DOT Cindy Burbank, FHWA Rick Capka, FHWA Joe Conway, FHWA Deb Elston, FHWA Kim Ferroni, Pennsylvania DOT Jill Hochman, FHWA Dave Huft, South Dakota DOT Dave Johnson, Minnesota DOT Barnie Jones, Oregon DOT and LTAP

TRB Staff

Ann Brach Walter Diewald Stephen Godwin Amelia Mathis Dennis Judycki, FHWA Marci Kenney, FHWA Larry Klepner, Delaware LTAP Ken Kobetsky, AASHTO Tom Krylowski, FHWA Lisa Paxton, FHWA Bill Pogash, Pennsylvania DOT Ed Stellfox, Maryland LTAP Joseph Toole, FHWA Julie Zirlin, FHWA

Jocelyn Sands Robert Reilly Suzanne Schneider Robert Skinner

Appendix A

Summary of a Discussion on Stakeholder Involvement in State Department of Transportation Research Programs and at Local Technical Assistance Program Centers Monday, March 8, 20004

Michael Ryan, H.W. Lochner, Inc. Sandra Rosenbloom, University of Arizona

Background

Panelists were asked to provide information with regard to the following:

- the size of their research and/or technology transfer program and their role in the program(s)
- the extent to which local/regional research needs are included in the state DOT program
- the extent of local (*i.e.*, end-user) input into relevant stages of the research or technology transfer (T²) process, including strategic planning, selecting specific topics, selecting agencies to conduct research, overseeing research, reviewing reports, and participating in product or report dissemination
- whether local/regional research needs or those from end-users are communicated to the FHWA and if so, how
- the extent to which FHWA research reports and products are useful at the state, regional, or local levels
- whether it was possible or necessary for FHWA to develop some kind of national program to encourage or effectively use local stakeholder input

Overall Themes in Panel Comments

- All panelists reported that they had a formal process to include local stakeholders in at least some aspects of their research or T² programs. However, in most cases this was top-down in that information was transferred from the state to local stakeholders through various types of training programs, workshops, annual conferences, showcases of "innovations," and face-to-face encounters (*e.g.*, circuit riders).
- Almost all panelists indicated they have formal or informal ways for local stakeholders to provide input on needed research or training that is from the "bottom up." However, when it occurred, involvement was often limited to just one or two stages in the multi-stage research process.

- A few states have or are considering some equivalent techniques for generating suggestions on research and training from the bottom up. Techniques used include research forums, annual surveys of local/regional stakeholders and end-users, annual awards programs, and advisory committees that include local elected or appointed officials and practitioners.
- Most panelists cited difficulties in fully engaging local stakeholders and endusers in research dissemination or implementation due to many factors. Their view was that the same would be true if and when local/regional stakeholders were asked to provide ideas or assist in overseeing needed research.
- The Minnesota Local Road Research Board Program has been able to more actively involve local stakeholders and end-users in developing and overseeing research activities because of the opportunities it provides to local/regional stakeholders and the program strategy plan. Participants are aware that the program's annual research budget is designed to meet their own needs.
- To gain the attention of local stakeholders in many small cities, townships, counties, etc., research products have to be focused and informational.
 Guidebooks, how-to-manuals, and information briefs are useful; talking heads are not.
- Some panelists believe they know their audience well and have a very good handle on what local stakeholders want and need.
- Panelists did not believe that a uniform **national** program aimed at stakeholder involvement would be successful because of state differences in organization, operation, and need.
- Most panelists felt that it would not be possible to develop a **national** program-as they envisioned the meaning of that term-because every state is so different with unique and varying needs. They did state that federal support to encourage national efforts would be helpful.
- The panelists were not aware of a specific role for FHWA district offices in engaging local/regional agencies in research programs. Several panelists reported specific examples of FHWA district offices help with the identification of research needs, strategic reviews, project oversight, and T² programs.
 - The panelists cited the need for brief research reports on federal research for use at both the state and local levels. FHWA research reports that are long and technical are less likely to be utilized.
- Innovations and research products need champions at state and local levels.

- Local stakeholders need very applied products and training.
- Local stakeholders and end-users are not risk-takers; they will adopt only proven technology and often only when provided with substantial incentives.

Overall Discussion

- There is a need to actively involve local <u>elected</u> leaders in smaller cities and counties. While local stakeholders and end-users may not be highly sophisticated about the technologies involved, that are very sophisticated about local politics and the budget process, so they can be very helpful in introducing new technologies that have a positive effect on budgets.
- The private sector, professional organizations, and interest groups can play a much larger role in many phases of research and T² programs. However, such an increased role is currently limited by issues such as the appearance of promoting proprietary products, limitations that must be placed on the distribution of draft research findings, etc.
- Even though most states have developed mechanisms to move research **from** the federal or state levels **to** local and regional stakeholders, those same channels are not yet used to encourage more involvement from the local/regional stakeholders in the research programs.
- FHWA can provide assistance and support for greater involvement of local and regional stakeholders in all aspects of the research process, while also recognizing that a national program will have to be a collection of different components because of the wide variations across the states and even wider variations across the local agencies.