

SHRP2 Quarterly Update

October 2007

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Twelve New Projects

During this quarter, Expert Task Groups (ETGs) developed requests for proposals for 12 new projects, shown in the box below. The RFPs were issued in July, and by the September 18, 2007, due date, 48 proposals had been received. ETGs met during October to review these proposals and develop recommendations for the SHRP 2 Oversight Committee to consider at its meeting early in November. Selections will be made then and awards will be announced when contracts have been finalized. At that point, 30 of the anticipated 42 projects in the SHRP 2 program will be under way. Progress in each of the focus areas is reported in Program Briefs which are updated at least twice a year and can be downloaded for distribution from the SHRP 2 Website under the Publications heading.

Second Safety Symposium Continues the Dialogue

The second SHRP 2 Safety Symposium, held July 26–27, 2007, at the National Academies' Keck Center in Washington, DC, drew more than 100 members of the highway safety community, including SHRP 2 safety program contractors, for discussions about project plans.

SHRP 2 Requests for Proposals

Release date: July 30, 2007

Safety

S02: Integrate Methods and Develop Analysis Plan; \$425,000; 19 months
S03: Roadway Measurement System Evaluation; \$500,000; 12 months

Reliability

L01: Identification and Analysis of Best Practices; \$400,000; 18 months
L02: Reliability Monitoring Programs; \$1.3M; 33 months
L12: Traffic Scene Incident Management; \$1M; 27 months

Renewal

R05: Modular Pavement Technology; \$1M; 36 Months
R16: Railroad-DOT Institutional Mitigation Strategies; \$400,000; 18 months
R19-A: Bridges for Service Life Beyond 100 Years: Innovative Systems, Subsystems, and Components; \$2M; 48 months
R23: Using Existing Pavement in Place and Achieving Long Life; \$1M; 36 months
R26: Preservation Approaches for High Traffic Volume Roadways; \$1M; 36 months

Capacity

C03: Interactions Among Transportation Capacity, Economic Systems, and Land Use/Integrating Economic considerations in Project Development; \$1.75M; 24 months
C05: Understanding the Contribution of Operations, Technology, and Design to Meeting Highway Capacity Needs; \$1M; 24 months

Project Spotlight

SHRP 2 Capacity Project C01: A Framework for Collaborative Decision Making on Additions to Highway Capacity

*Contractor: ICF International
Project Funds: \$2,599,996*

*Principal Investigator: Janet D'Ignazio
Project Duration: 3 years*

Transportation projects of all types involve decisions by a wide range of stakeholders. One of the problems addressed by this research is how to consistently balance the many competing interests to reach collaborative and timely decisions on adding transportation capacity. As in most SHRP 2 projects, the issues addressed in Project C01 are multi-faceted and complexly interwoven, requiring richly detailed information as a foundation for fresh thinking and an expansive approach to new solutions.

Nine months into this 36-month, 4-phase project, products of the first two phases have been delivered. Phase I products include 11 of 16 draft case studies that document common elements of success, including how compromise was reached on difficult issues, how conflicting positions were reconciled, how barriers were overcome, who made the decision, the information needed to reach the decision, communication tools and processes, how institutional barriers were overcome, and observations on what could be done better. The

studies focus on different aspects of the process. Four are comprehensive; six emphasize planning, and six highlight project development and permitting.

Phase II of the project focuses on a systems-based solutions screening process that uses performance measures to assess, for each alternative, the costs, economic justification, capacity added, and impact on the human and natural environment. This phase of the project is closely coordinated with Project C02: Systems-Based Performance Measurement Framework for Highway Capacity Decision Making; the contractors for both projects are working in tandem and jointly presented their early-stage activities to the Capacity TCC in September. A draft report was submitted in September that includes 8 case studies that illustrate various approaches to solution screening. Case studies from both phases will be made available early in 2008.

Contact Steve Andrie, SHRP 2 Chief Program Officer for the Capacity Focus Area, for information on this project: sandrie@nas.edu.

SHRP 2 Safety research is studying safety from an entirely new perspective and many opportunities exist for fresh ideas and innovative thinking. To encourage new approaches, presenters led technical discussions that addressed the theoretical and practical implications of the statistical analyses that will be undertaken in the course of the research program. Contractors for each of the active Safety projects provided background on their projects and received comments and questions from Symposium participants. A moderated discussion of the safety program research questions followed.

Fred Wegman of the Institute for Road Safety Research (SWOV) in the Netherlands gave an update on the status of naturalistic driving safety research in Europe and plans for future work. Recent and ongoing research interests of the automobile industry that relate to the SHRP 2 Safety research were presented by Vann Wilber of the Alliance of Automobile Manufacturers, Barbara Wendling of DaimlerChrysler, Richard Deering of General Motors, and Michael Cammisa of the Association of

International Automobile Manufacturers. All of the presentations made during the Symposium are on the SHRP2 Website.

The third SHRP 2 Safety Symposium is scheduled for July 17–18, 2008.

Technical Coordinating Committees Make Changes

The hardworking Technical Coordinating Committees (TCCs) for each of the four SHRP 2 Focus Areas met during September and October, at the National Academies' facility in Woods Hole, Massachusetts.

For the Renewal TCC, the fall meeting marked a transition from the early work of refining program plans and allocating funding to what will be its primary focus, the ongoing evaluation of progress in the research projects that make up the plans.

The Reliability TCC revisited the existing research plan, tightening up links among projects and reallocating funds as



The J. Erik Jonsson Study Center on Quissett Harbor

appropriate. While the core program was reconfirmed during discussions, a possible emphasis on future developments and innovation in travel-time reliability strategies seems likely.

The Safety TCC heard updates from contractors, and discussion centered on developing objective criteria for study sample design. The issues relate to selecting drivers and vehicles to acquire data that will be relevant in future years and selecting sites for data collection that achieve appropriate representation across the many influencing factors.

The Capacity TCC reviewed a report on research needs prepared by the contractor for Project C01 based on 25 case studies completed over the summer. From this report and problem statements developed by working groups, the TCC selected 11 new projects for the Capacity program valued at \$10.8 million. Capacity now has a complete program of projects divided into two tracks—elements of collaborative decision making and improved methods and procedures. An integration project will bring the products of nine projects together into a flexible, useable framework for collaborative decision making, organized around roughly 30 key decision points in the highway capacity decision process.

Another strategic project supports a SHRP 2 partnership with one or two states or MPOs to bring an integrated advanced travel demand model set and time-sensitive network online and evaluate sensitivity to congestion, pricing, and operations. This approach uses SHRP 2 funds as a catalyst to leverage prior investment where models in development have not yet delivered the desired results. Another strategic project will seek an ecosystem-level, multi-function credits system to improve conservation and mitigation of highway impacts. Other new topics include dealing with greenhouse gas emissions and public-private partnerships in the highway capacity decision process.

Website Enhancement

A new feature soon to be available on the SHRP 2 Website will provide detailed information for all SHRP 2 projects. A link to the new TRBNet will access project descriptions at the same URL for the life of any project. The descriptions will be updated as projects move through the phases from RFP to completion, with links to final reports and products. In this quarter, preliminary data entry was completed and the final steps of building interfaces are under way.

Annual Meeting Preparations Under Way

Progress in specific SHRP 2 projects will be reported on during sessions held at the TRB Annual Meeting, which this year runs from January 13–17, 2008. Presentations will be made by contractors conducting research in Safety, Capacity, and Renewal focus areas. Information on all program activities will be available at the TRB booth in the Exhibit Hall of the Marriott Wardman Park Hotel.

An international symposium on non-destructive testing for design evaluation and construction inspection is also being planned for Friday, January 18th. Co-sponsored by the Forum of European National Highway Research Laboratories (FEHRL) and SHRP 2, the symposium will gather international feedback on planning a program of research and development for non-destructive testing applied to highway renewal design and construction inspection. There is no fee for the symposium, but registration through the SHRP 2 Website will be required.

International Activities

The European Union hosted a conference on the economic impacts of infrastructure development in Boston on October 15–16, 2007. The Research Round Table, entitled “Macro, Meso and Micro-Infrastructure Planning and Assessment Tools,” considered “economics for an imperfect world” (after the title of a collection of essays in honor of Nobel prize-winning economist Joseph Stiglitz). The topic is closely related to SHRP 2 Capacity Project C03, which will address how transportation projects affect economic vitality at the regional level. Several people who are involved with Project C03 served as panelists for the Roundtable and the discussions held will likely inform research on both continents.

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