



Transitway program featured at Hennepin-University Partnership symposium

The Transitway Impacts Research Program (TIRP) was one of the successes featured at the First Annual Hennepin-University Partnership Symposium held October 10 on the Minneapolis west bank campus.



Robert Jones

Hennepin County and the University of Minnesota launched the partnership in early 2005 to capture value for both organizations through a more strategic collaboration. This includes collaborating on community-based research, sharing academic and practitioner expertise, and providing students with valuable real-world experience.

The symposium began with an introduction to the partnership from **Robert Jones**, senior vice president of the University, and Hennepin County commissioners **Randy Johnson** and

Linda Koblick. (Jones and Koblick are members of the CTS Executive Committee.)

Next on the agenda was a panel that shared examples of effective collaboration, beginning with the Transitway Impacts Research Program. The initial partnership between Hennepin County and the University has grown to a regional collaboration and pooling of funds by other metro counties, Mn/DOT, the Metropolitan Council, and the Itasca Project. (See page 2 for a related article.)

Highlights and research updates were given by **Robert Johns**, CTS director; Professor **Ed Goetz**, director of the Humphrey Institute's Master of Urban and Regional Planning Program; and **Marthand Nookala**, assistant county administrator for public works with Hennepin County.

All three spoke of the benefits of taking a collaborative approach to transitway research.

Hennepin continued on page 2

Germany's mileage-based tolling: a model for Minnesota?

In 2005 Germany launched a mileage-based tolling system for heavy commercial vehicles on its national motorway (Autobahn) network. Would such a model work for Minnesota? Leaders discussed the pros and cons at a "Rethinking Transportation Finance Roundtable" held October 1 on the Minneapolis campus.

Gina Baas of CTS welcomed attendees on behalf of CTS and the State and Local Policy Program (SLPP) of the Hubert H. Humphrey Institute of Public Affairs. The occasional roundtables bring together Minnesota leaders to hear the latest ideas in transportation finance.

SLPP research fellow **Barb Rohde** moderated the first panel, which began with a description of the German system by **Ferrol Robinson**, principal with SRF Consulting Group. The system, a public-private partnership, places the government in charge of regulations,

contracting, and enforcement and the private sector in charge of operations.

The rationale for the system was based on several factors, Robinson said, including an estimated 2 billion euro funding shortfall per year for roads. The system was also aimed at paying for some of the infrastructure costs—estimated at 3.4 billion euros annually—caused by heavy trucks. What's more, foreign trucks drove 35 percent of Germany's truck-miles, and many did not comply with emissions standards.

Under the tolling system, 50 percent of revenues are directed to roads, 38 percent to rail, and 12 percent to waterways, Robinson said. Annual revenues reached \$5.3 billion in 2007, the number of "dirty" trucks fell from 50 percent to 20 percent, and empty truck trips declined by 20 percent. "The system largely succeeded in meeting its objectives," he reported.

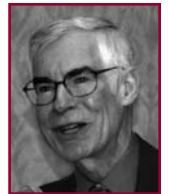
Germany continued on page 3

Inside

- Transitway research 2
- New faculty 2
- Asphalt research 3
- Landscape award 4
- Transportation on the air 4
- Transportation Career Expo... 4

Transit expert to advise U of M, Metro Transit

Nigel Wilson, a professor of civil and environmental engineering at the Massachusetts Institute of Technology, is



Nigel Wilson

spending a six-month sabbatical at the University of Minnesota. Wilson is an internationally known expert on urban public transportation, including topics related to the operation, analysis, planning, and management of transit systems.

Support for the sabbatical is being provided by the Intelligent Transportation Systems (ITS) Institute, directed by Professor **Max Donath**; the Department of Civil Engineering; and Metro Transit.

During his stay, Wilson will advise Metro Transit on areas of fare policy, fare collection technology, and analysis of fare collection data, as well as on topics related to the development of bus rapid transit (BRT) service in the Twin Cities. He will advise the University on research into optimizing urban traffic systems as well as on BRT-related issues.

Wilson continued on page 3

Transitway research assists regional planning

Even before the Hiawatha light-rail line—the state’s first—began service in 2004, local policymakers and staff were interested in the potential economic and social impacts of major transitways on the surrounding community. As the region continues to build a system of transitways, interest in these impacts is growing as well as in the associated changes in travel behavior that come with system development.

University researchers in the Transitway Research Impacts Program (TIRP) are providing data needed by policymakers as they plan and develop these projects. TIRP was initiated by the Hennepin-University Partnership in 2006 (see related article on page 1) and has grown to include a mix of local, regional, and state funding partners including Hennepin, Anoka, Dakota, Ramsey, and Washington counties; the Metropolitan Council; the Minnesota Department of Transportation; the University Metropolitan Consortium; the Itasca Project; and CTS. It is supported by staff from CTS and the State and Local Policy Program at the Humphrey Institute of Public Affairs.

In current research, Professor **Ed Goetz** of the Humphrey Institute and project coordinator **Jeff Matson** of the Center for Urban and Regional Affairs are designing a methodology to measure changes in residential property values, housing mix, and surrounding land uses and testing it on the Hiawatha Light-Rail Corridor.



Ed Goetz

In addition, a team led by assistant professor **Jason Cao** of the Humphrey Institute (a CTS Scholar) is designing a methodology to measure transportation impacts from transitway investments (such as the type and mix of riders attracted by the investment) and testing it on a study of region-wide travel behavior.

A draft final report of each project will be available by December 2008.

Two additional studies are planned for 2009:

- Measuring job accessibility and workforce relocation with a transportation equity perspective, led by Assistant Professor **Yingling Fan**, Humphrey Institute
- Measuring changes in commercial property value (including retail, office, and light industry) resulting from transitway investments, led by Cao

Plans are under way to seek federal and private sector funding to further expand and extend the program.

The first TIRP research report—*Inventories of Data and Research on the Economic and Community Impacts of the Hiawatha LRT*—is on the TIRP Web site: www.cts.umn.edu/Research/Featured/Transitways.

CTS supports the TIRP program management team and also coordinates outreach activities to increase involvement and information sharing about this program.

For more information, contact **Jan Lucke** of CTS at 612-625-8401, jlucke@cts.umn.edu. **CTS**

Transportation expertise added at Humphrey Institute

Two new faces joined the Hubert H. Humphrey Institute of Public Affairs this semester.



Yingling Fan

Assistant professor **Yingling Fan** brings additional expertise in several key areas including land use and growth management, transportation planning and policy, time geography, and urban health issues. Fan’s research investigates the effects of spatial planning practices (such as transportation planning and growth management strategies) on human activities, combining ecological and behavioral approaches. Fan also teaches courses in land use planning and policy analysis in the Humphrey Institute. She was named a CTS Faculty Scholar.

Greg Lindsey, the new associate dean, joined the faculty of the Humphrey Institute’s Master of Urban and Regional Planning program. He previously served as a professor and an associate dean with Indiana University’s School of Public and Environmental Affairs. As a researcher, Lindsey specializes in environmental planning, policy, and management at the state and local levels. His current projects involve analyses of activity patterns on urban greenways and the effects of greenways in urban communities. **CTS**

Hennepin from page 1

“No one county can do the research,” Nookala said, “and we need everybody at the table so that all citizens can benefit from the research.” Johns reported that the program’s research approach and structure could become a national model for the conduct of transitway research and has attracted the interest of the Federal Transit Administration. Goetz discussed the benefits of graduate student involvement—to the students and to the sponsors—in conducting the research.

Richard Johnson, Hennepin County administrator, introduced the lunch keynote speaker, **Peter Hutchinson**, president of the Bush Foundation. An afternoon panel on the future of collaboration featured Professor **Tom Scott**, director of the University’s Center for Urban and Regional



Affairs (and a CTS Faculty Scholar), and Hennepin County Commissioner **Peter McLaughlin**.

Johns, Goetz, Scott, and **Andrew Furco**, the University’s vice president for public engagement (and CTS Executive Committee member), serve on the Hennepin-University Partnership Advisory Committee.

For more about the partnership, see www.umn.edu/hup. **CTS**



Wilson from page 1

Wilson will also give a number of presentations, including the November 4 Advanced Transportation Technologies Seminar sponsored by the ITS Institute. The seminar, part of the CTS Fall Seminar Series, is titled “Improving Transit System Performance with the Benefit of Automatic Data Collection Systems.” It is available for viewing at www.its.umn.edu/Events/SeminarSeries/2008/Nov4.html.

In an earlier trip to Minnesota, Wilson presented a speech titled “Realistic Public Transport Futures in an Uncertain World” as the 2006 CTS Fall Luncheon speaker. (Coverage of the speech is online at www.cts.umn.edu/Publications/CTSReport/2006/12/WilsonLongTerm.html.) **CTS**

Germany from page 1

Adeel Lari, director of innovative transportation finance at the Humphrey Institute, said several factors are spurring U.S. interest in the German system. The Highway Trust Fund went into deficit this year, and Congress made a temporary infusion of \$8 billion to keep it solvent. Minnesota raised its gas tax in May 2008—after a 20-year gap—and the federal gas tax has not been raised since 1993. The fuel tax itself collects less revenue as non-petroleum-based vehicles become more common and as mileage continues to improve. In addition, revenues are being eroded by inflation, the prices of materials are rising, and vehicle-miles traveled may have peaked.

A mileage-based fee, in contrast, is not affected by alternative vehicles or fuel efficiency gains, Lari said, although it can be designed to provide incentives. “Mileage-based fees are a more robust and sustainable revenue source than fuel taxes for transportation infrastructure financing,” he concluded.

Lee Munnich, senior fellow and SLPP director, raised a number of questions for Minnesota to consider if it moves toward a mileage-based system. For example, should revenues be dedicated to transportation? Should tolling be extended to other vehicles besides trucks? Should differential toll rates be used to reduce

Researchers receive additional funds for asphalt research

Researchers in the Department of Civil Engineering have received a \$265,000 grant for the second phase of an investigation of low-temperature cracking in asphalt pavements. Assistant Professor **Mihai Marasteanu** is the principal investigator for the work, with professors **Joe Labuz** and **Henryk Stokarski** as co-investigators. The research, in cooperation with three other Midwest universities, is supported by the Minnesota Department of Transportation and other state transportation pooled funds.

In the first phase of the research, Marasteanu and the research team focused their efforts on developing new experimen-



Mihai Marasteanu

pollution levels?

Next, a panel moderated by **Ken Buckeye**, program manager with Mn/DOT, responded to these questions and posed some of their own.

Bernie Lieder, chair of the Minnesota House Transportation Committee, said selling tolling to the public and legislators is “a problem,” especially if trucks alone are covered. “Germany diverts funds for waterways and transit, which would be a difficult sell here,” he added.

Bernie Arseneau, division director for policy, safety, and strategic initiatives at Mn/DOT, said Minnesota is in a unique situation as a national leader in intelligent transportation systems implementation, particularly evident in the MnPASS pricing program.

Linda Koblick, a Hennepin County commissioner, said getting public support was a key element in the success of MnPASS. “The German approach is exciting, and it’s something we can do here,” she said.

Mike Erlandson, vice president of government affairs for SUPERVALU, said the trucking industry’s support of the gas-tax increase is proof that it is willing to pay more for transportation—

tal techniques that will support the design of better-performing pavements for cold-temperature applications. A final research report on the first phase of the study (Mn/DOT 2007-43) is available on the CTS Web site.

The second phase builds upon the findings and recommendations of phase one. The main focus will be the development of test methods and specification criteria that will allow the selection of fracture-resistant asphalt mixtures and binders at low temperatures. The current method used in the field provides the parameters needed to predict performance at intermediate and high temperatures, but there is a need for a similar test to fill the gap in the low-temperature range.

To learn more about pavement research, please visit www.cts.umn.edu/research. **CTS**



Lee Munnich



German sign indicating toll road for heavy trucks

if goods can then be moved more efficiently. “Ultimately, if you’re going to price to alleviate congestion, then you need to price the entire system, not just trucks,” he said.

Jeremy Estenson, director of government relations with the Minnesota Trucking Association, said the trucking industry is interested in a healthy transportation system but “remains concerned about keeping dollars spent on the roads.” He also suggested that any tolling system would need to be nationwide.

Barb Thoman, program director with Transit for Livable Communities, said the value of the German system is that it can do what fuel tax does—and more. It can be designed to reward efficiency, reduce greenhouse gas emissions, and meet other needs. “Certainly, it is a good idea for us to look at,” she said, adding that she hopes the next federal bill includes a pilot program and that Minnesota will be considered. **CTS**

Landscape center receives national award

The Center for Changing Landscapes received the Minnesota chapter of the American Society of Landscape Architects (MASLA) award of excellence for the center's work on the Minnesota River State Trail. The award, the highest given by MASLA, was presented at the MASLA annual awards dinner earlier this year in St. Paul.

Mary Vogel, a CTS Scholar and senior research fellow in the Department of

Landscape Architecture, is the center's co-director along with **Alan Ek** of the Department of Forest Resources. As a catalyst for linking expertise in natural resources management, architecture, landscape architecture, and urban design, the center addresses issues of social, economic, and ecological sustainability in changing rural, urban, and urbanizing landscapes. It is a partnership between the College of Architecture and

Landscape Architecture and the College of Natural Resources at the University of Minnesota.

For the Minnesota River Trail project, the center collaborated with the Minnesota DNR to work with communities and trail groups to ensure that local communities have a voice in recreational, tourism, and community issues associated with the trail. The report is available at <http://ccl.gis.umn.edu>. **CTS**

Transportation on the airwaves

A television program related to transportation in the Twin Cities region—*Roads, Rails and Urban Change*—aired on October 19 on Twin Cities Public Television. The University Metropolitan Consortium co-produced the program, and CTS was a sponsor. The program examined the history of transportation and the key transportation topics facing Minnesota planners and policymakers in the near future.

The University Metropolitan Consortium was established in 2006 to link the centers, programs, and faculty and staff at the

University engaged in teaching, research, and outreach concerned with understanding metropolitan change and development.

CTS Faculty Scholar **John Adams** and fellow geography and urban studies professor **Judith Martin** co-direct the consortium and participated in the program. Other guests with a University connection were **David Levinson**, the Braun/CTS Chair; former CTS Executive Committee members **Jim Newland** and **Curt Johnson**; and CTS Board of Advisors member **Natalio Diaz**. **CTS**

Registration under way for Transportation Career Expo

Students, employers, and professional organizations are encouraged to attend the annual Transportation Career Expo. The 2009 offering will be held February 5 from 4:15 to 7:15 p.m. at Coffman Memorial Union on the Minneapolis campus. Please see the enclosed form for details. **CTS**

Upcoming events

To publicize your event, call CTS at 612-626-1077, fax 612-625-6381, or e-mail snopl001@cts.umn.edu. Visit the CTS Web site—www.cts.umn.edu—for more comprehensive event information.

Dec. 3	Minnesota Association of Asphalt Paving Technologists 55th Annual Asphalt Conference, Brooklyn Park, Minn. See www.mn-aapt.org .	Jan. 28–30	City Engineers Association of Minnesota Annual Conference, Brooklyn Center, Minn. See http://ceam.govoffice.com .	March 16–18	Association of Asphalt Paving Technologists Annual Meeting, Minneapolis. See www.asphalttechnology.org .
Dec. 4	58th Annual Concrete Conference, Brooklyn Center, Minn. Contact Kay Syme, 612-624-4938, cceconf4@umn.edu .	Feb. 5	Transportation Career Expo, Minneapolis. Contact Shawn Haag , 612-625-5608, haag0025@cts.umn.edu .	Apr. 14–15	Spring Maintenance Training Expo, St. Cloud. See www.mnltap.umn.edu/Events .
Dec. 5	12th Annual CTS Freight and Logistics Symposium, Minneapolis. Contact Sara Van Essendelft , 612-624-3708, cceconf5@umn.edu .	Feb. 11	CTS Winter Luncheon, Minneapolis. Contact Sara Van Essendelft , 612-624-3708, cceconf5@umn.edu .	May 19–20	20th Annual CTS Transportation Research Conference, Sheraton Hotel, Bloomington. Contact Sara Van Essendelft , 612-624-3708, cceconf5@umn.edu .
Jan. 20–23	Minnesota County Engineers Association Annual Meeting, Brainerd, Minn. See www.cce.umn.edu/conferences/mncoengineers .	Feb. 12	13th Annual Minnesota Pavement Conference, St. Paul. Contact Shirley Mueffelman , 612-624-4754, cceconf2@umn.edu .	June 15–16	International Transport Economics Conference, Minneapolis. Contact Sara Van Essendelft , 612-624-3708, cceconf5@umn.edu . CTS