



Oberstar Forum: Leadership, funding needed to avert crisis in aging U.S. transportation infrastructure

“The U.S. transportation network remains the envy of the world, but we are losing ground,” U.S. Rep. **James L. Oberstar** said during his keynote speech at the annual forum named in his honor. “If we don’t develop a new intermodal and international competitiveness vision in this country—a renewed commitment to invest in the construction needs of all modes of transportation—we will be left behind.”

Transportation policymakers, professionals, and research leaders from Minnesota and across the country joined Oberstar on October 7 and 8 to examine the challenges posed by the nation’s

aging transportation infrastructure. The event, hosted by CTS on the University of Minnesota’s Minneapolis campus, addressed many of the infrastructure issues raised by the collapse of the nearby I-35W bridge just two months earlier.

This was the sixth meeting of the transportation policy and technology forum and the first since Oberstar became chairman of the House Transportation and Infrastructure Committee.

Oberstar and many other forum participants talked in depth about the need for greater transportation infrastructure

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funding and ways to garner public interest in the often dry and complex issue. In particular, discussion focused on the necessity of a federal gas-tax increase to fund badly needed transportation system maintenance and improvements.

Speakers at the public portion of the forum included U.S. Sen. **Amy Klobuchar**, former secretary of the U.S. Department of Transportation **Norman Y. Mineta**, and former chair of the U.S. House Transportation and Infrastructure Committee **Bud Shuster**, as well as a panel of current and former state DOT leaders.

“Unfortunately, it has taken a disaster to put the issue of infrastructure and investment squarely on the national agenda,” Klobuchar said, “and it is long overdue.”

Mineta and Shuster, joining Oberstar in a panel discussion, also shared some

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James Oberstar



Amy Klobuchar



Norman Mineta



Bud Shuster

Toward Zero Deaths Conference highlights ‘Move Over,’ primary seat belt laws

In August 2000, Corporal **Ted Foss** with the Minnesota State Patrol was struck and killed during a routine traffic stop. As attendees at this year’s Toward Zero Deaths (TZD) conference learned, being hit by a vehicle is a constant threat for on-the-job law enforcement officers. In Minnesota and nationwide, approximately 50 percent of law enforcement deaths are traffic related, said State Patrol Colonel **Mark Dunaski** during the conference’s opening session.

The TZD annual conference serves as a forum for sharing information on how to

reduce the number of fatalities and injuries on Minnesota roads. This year’s event, held September 17 and 18 in Duluth, Minn., drew about 540 attendees.

Dunaski noted that the issue affects not only law enforcement but also emergency response agencies, transportation department workers, and tow truck operators, among others. “We’re all out on the highways—it’s our work zone. We need motorists to understand this, and we also need to learn how to keep ourselves safe out there,” he said.

As a result of Foss’s death, the Minnesota State Legislature enacted the “Ted Foss” Move Over Law, which requires drivers approaching an emergency vehicle stopped

along a roadway to move over to another lane (on roads with two or more lanes in the same direction), providing a full lane of buffer space. To get the word out to Minnesotans about the “Ted Foss Law,” Mn/DOT spearheaded an educational campaign along with other agencies including the Office of Traffic Safety and the Minnesota State Patrol.

During the conference’s luncheon session, the critical role that the media play in raising awareness of traffic safety issues was recognized through the work of three local reporters. **Trish Van Pilsum** and **Jeff Baillon** with FOX 9 News and **Rick Kupchella** with KARE-11 News were given TZD STAR Awards for their work

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Mark Dunaski

of their previous attempts to fund infrastructure improvements, primarily through a federal gas-tax increase. “What do we have to do to establish a sense of urgency about transportation?” Mineta asked. “The United States will not remain competitive in a global economy with the level of investments we’re currently making across all transportation modes.”

Attendees also heard a panel of current and former state DOT leaders

discuss infrastructure challenges in their states. “The public doesn’t understand that the interstate system needs to be rebuilt,” said **Frank Busalacchi**, Wisconsin Department of Transportation secretary. “Unfortunately, rebuilding this system is not small potatoes.”

Will Kempton, director of the California Department of Transportation, noted that the federal gas tax was last

increased in 1993, and California’s state gas tax was last increased in 1995. “Here we are with all of these responsibilities, growing system demand, an aging infrastructure, and having to pay for that on the same ‘salary’ we made back in the mid ’90s,” he said.

Tim Martin, former secretary of the Illinois Department of Transportation, also made a case for raising the gas tax. “No one is paying their fair share if the last time the federal gas tax was raised was in 1993 and inflation has doubled prices since then,” he said. “We have to



Steve Lockwood



David Levinson



Robert Bruininks



Roberto Ballarini



Tim Martin

do something about that.”

The public portion of the forum attracted more than 300 and drew interest from area media as well as a video team from C-SPAN. It followed a series of presentations and discussions for invited leaders, which began with an introductory report on the U.S. transportation infrastructure from **Steve Lockwood** of PB Consult. According to Lockwood, maintaining existing highways and bridges requires a minimum investment of \$79 billion a year. By contrast, improving all highways and bridges to achieve maximum cost-effective conditions would require an annual investment of \$132 billion a year. “We’re currently spending only \$70 billion annually,” he pointed out.

In addition, a panel of University of Minnesota faculty members presented research about the I-35W bridge collapse and deficiencies in the nation’s transportation infrastructure. **Roberto Ballarini**, University of Minnesota civil engineering (CE) professor and department head, provided a primer in lay terms on the structural fatigue plaguing the nation’s transportation systems. “[The United States is] arguably the richest we’ve ever been,” he said, “but somehow we don’t see fit to put money into our infrastructure.”

University of Minnesota CE associate professor **David Levinson** estimated between 9,000 and 12,000 hours of

travel time have been lost each day since the I-35W bridge collapse, costing the area economy about \$170,000 a day. “These numbers help us understand how important bridges are to the economy,” Levinson said.

University of Minnesota president **Robert Bruininks**, who opened the public portion of the forum, noted that the I-35W bridge collapse had dramatically affected students and staff because of the disaster’s close proximity to campus. He also thanked Oberstar for his congressional leadership in securing federal support following the collapse.

In his closing remarks for the event, Oberstar called for a renewed commitment to providing the vision and leadership to rebuild and expand the nation’s transportation systems despite the current political and legislative environment. “We’ve downsized the understanding of the need to move people and goods, to link communities, to advance the frontier, to push America forward. We need to rebuild the public confidence in our transportation system,” he concluded. “We will not wait for the crisis to come upon us.”

More information about the sixth James L. Oberstar Forum for Transportation Policy and Technology is online at www.cts.umn.edu/oberstarforum. A detailed report summarizing the forum will be available in December. **CTS**

New features on CTS Web site: search engine, research topics, and more

The CTS Web site now offers several new ways to find information.

You can browse research projects and reports by topic. It’s a quick way to find University of Minnesota research on subjects ranging from bridges to economics.

Another new feature is the Minnesota

Transportation Search engine, which uses Google Custom Search to search all transportation-related Web sites in Minnesota. You can also try the other customized search engines to search the Web sites of all LTAP centers, university transportation centers, state DOTs, or metropolitan plan-

ning organizations.

Since the redesign of the Web site, launched last February, usage has nearly quadrupled over the same time period during the previous year.

Check out these helpful tools at www.cts.umn.edu. **CTS**

Stormwater research to influence state, national standards

Findings from University research into the effectiveness of stormwater management devices are influencing state and national standards. The research is led by **Omid Mohseni**, associate director of applied research at the St. Anthony Falls Laboratory (SAFL) on the Minneapolis campus. Mohseni described his recent work at an October 2 CTS Research Seminar.

Variou levels of government spend millions of dollars on stormwater treatment, Mohseni said, but guidelines to evaluate the effectiveness of the devices have been lacking. Third-party lab testing has been limited, and the results of monitoring in previous studies varied widely—up to 500 percent for some devices.

In 2005, SAFL received funding from the Minnesota Local Road Research Board and the Twin Cities Metropolitan Council to conduct field tests on four

underground stormwater treatment devices in the metro area. In these tests, the researchers fed several sediment gradations (sizes) into the system at predefined concentrations and flow rates over a specified period of time. The sediment collected in the systems was then filtered, dried, and weighed to determine the true removal efficiency of each structure.

Mohseni and co-investigator **John Gulliver**, professor and former civil engineering department head, developed a new assessment procedure during their research. A city, for example, could set a target of removing 75 percent of specific particles, then use the procedure to choose the appropriate device,



Omid Mohseni

model, and size. The new procedure was incorporated into the *Minnesota Stormwater Best Management Practices (BMP) Performance Assessment Protocol* through funding from the Minnesota Pollution Control Agency (see www.pca.state.mn.us).

“Manufacturers are happy with the research...and are promoting it across the country and to Canada to encourage adoption,” Mohseni added.

In a follow-up project funded by the LRRB and Mn/DOT, Mohseni and Gulliver are assessing how underground stormwater treatment devices perform under high flow conditions such as severe storms. The results will also be integrated into the *Stormwater BMP Assessment Protocol*.

The research has received national recognition. Mohseni was invited to become a member of an American Society for

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producing in-depth traffic safety news stories. Van Pilsum’s report on seat belt use showed that in many fatal vehicle crashes, the passenger compartment is left intact, and if seat belts are used, many people can survive. Today, thousands of driver’s education students across the country are shown Van Pilsum’s seat belt story, as are UPS and Speedy Delivery Service drivers. AAA and the Minnesota High School League have teamed up to show it at state high school tournaments as well.

Baillon’s story showed how cable median barriers are saving lives by preventing crossover crashes. Kupchella’s three-part news series on impaired driving included candid interviews with individuals who had been arrested for driving under the influence (DUI) and followed them through the legal process that follows such an arrest.

In a concurrent session on emergency medical services (EMS) response times and trauma, University of Minnesota researcher **Tom Horan**, with the Hubert H. Humphrey Institute of Public Affairs’s Center for Excellence in Rural Safety, described the Center’s efforts to facilitate research, train-

ing, and outreach activities related to rural transportation safety.

Delays in receiving emergency care in sparsely populated areas put many rural Americans at greater risk of permanent injury or death than those living in urban areas. Improving EMS response in rural areas means learning about the differences that exist in rural versus urban transportation and health services and examining the role technology plays in improving accessibility, timeliness, and quality of rural services, Horan said.

Horan’s team is now working to construct a data model illustrating the flow from the initial 911 call through dispatch, response, coordination, and treatment. Ultimately, his team hopes to apply this data in a framework that allows anybody to access it and easily see the distribution of fatalities and response times in a state. “We think this will provide an interactive way for the public to start to see and understand the nature and severity of these fatal crashes,” he said.

In the conference’s final session, **David** and **Loni Kjos** described the devastating impact of their daughter’s death in a 2004 car crash and their ongoing efforts to get the Minnesota State Legislature to adopt a primary seat belt law. **Kelsey Rae Kjos** was not wearing a seat belt at the time she was

killed. The current seat belt law is the only traffic law in Minnesota that is “secondary” in nature, and some experts say that upgrading the law to standard enforcement could annually save 55 lives and prevent 1,000 injuries in Minnesota.

Other conference sessions covered teen driving, safety strategies for rural roads, high-visibility law enforcement programs, initiatives for reducing impaired driving, child passenger safety, and other traffic safety topics. CTS’s **Stephanie Malinoff**, outreach and education coordinator, moderated one of the conference’s concurrent sessions.

Plenary sessions were moderated by **Bernie Arseneau** of Mn/DOT and **Cheri Marti** of DPS. Marti is the former associate director of CTS.

Toward Zero Deaths is a multiagency partnership that includes representatives from Mn/DOT, the Minnesota Department of Public Safety, the Minnesota State Patrol, the Federal Highway Administration, and CTS. The conference was hosted by CTS and sponsored by Mn/DOT, the Department of Public Safety, and the Minnesota TZD program.

A proceedings of the conference will be published in early 2008. To receive a copy, call CTS at 612-626-1077 or visit www.cts.umn.edu/publications. **CTS**



Tom Horan

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Testing and Materials (ASTM) subcommittee that is developing a standard method for evaluating proprietary devices. He was assigned to a four-member task group that is preparing a first draft, due in December 2007, which will be submitted to the full subcommittee. "It is very likely that the method developed through this project becomes the standard method nationwide," he said.

Earlier this year, Mohseni and Gulliver were assigned to chair the lab testing and scaling subcommittees, respectively, of the American Society of Civil Engineers

(ASCE) Environmental and Water Resources Institute Task Committee on Guidelines for Certification of Manufactured Stormwater BMPs. The task committee is developing guidelines for evaluating proprietary underground devices.

In related news, a new stream restoration/bioengineering facility is under construction at the St. Anthony Falls Laboratory called the Outdoor StreamLab (OSL). The facility evolved from an earlier Mn/DOT-funded project, *Scoping Study for the Development of Design*

Guidelines for Bioengineering in the Upper Midwest (report # 2004-47). Funded by SAFL and the National Center for Earth-surface Dynamics (NCED), OSL will be used to investigate some of the fundamental processes and mechanisms involved in soil bioengineering techniques—which are widely used to protect slopes and river banks against erosion—as well as stream restoration and river morphology.

To read more about Mohseni's and Gulliver's research, please visit www.cts.umn.edu/research. **CTS**

CTS seeks nominees for Research Partnership Award

CTS is accepting nominations for the 2008 Research Partnership Award. The award honors research projects within the CTS program that have resulted in significant impacts on transportation. Criteria

and submission instructions are in the enclosed form.

An evaluation committee will review the nominations and recommend a winning partnership to the CTS director for

approval. The award will be presented at the CTS annual awards ceremony on April 24. Please return your nomination form to **Chad Rathmann** of CTS by January 31, 2008. **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.

Nov. 30	11th Annual CTS Freight and Logistics Symposium, Minneapolis. Contact Julie Grazier , 612-624-3708, cceconf5@umn.edu .	Jan. 30–Feb. 1	City Engineers Association of Minnesota Annual Conference, Brooklyn Center. Contact Carrie Alkins , 612-624-3492, cceconf3@umn.edu , or visit www.ceam.org .	Center. See www.asphaltisbest.com or e-mail jthomas@mnapa.org .	
Dec. 5	Minnesota Association of Asphalt Paving Technologists (MAAPT) 54 th Annual Asphalt Conference, Brooklyn Park, Minn. See www.asphaltisbest.com or e-mail jthomas@mnapa.org .	Feb. 13	CTS Winter Luncheon, Minneapolis, featuring Ronald Medford , National Highway Traffic Safety Administration. Contact Julie Grazier , 612-624-3708, cceconf5@umn.edu .	March 13–14	Concrete Paving Association of Minnesota 47th Annual Concrete Paving Workshop, Mankato. Contact Deb LaValle , 651-762-0402, www.concreteisbetter.com .
Dec. 6	57th Annual Concrete Conference, St. Paul. Contact Kristi Fischer , 612-625-4265, cceconf4@umn.edu .	Feb. 14	12th Annual Minnesota Pavement Conference, St. Paul. Contact Shirley Mueffelman , 612-624-4754, cceconf2@umn.edu .	Apr. 15–16	Minnesota Spring Maintenance Training Expo, St. Cloud. Contact Shirley Mueffelman , 612-624-4754, cceconf2@umn.edu . CTS
Jan. 22–25	Minnesota County Engineers Association Annual Conference, Brainerd. Contact Carrie Alkins , 612-624-3492, cceconf3@umn.edu , or visit www.mncountyengineers.org .	March 5	52nd Annual Asphalt Contractors' Workshop/MN Quality Initiative Workshop, Brooklyn		

Correction

The 19th Annual CTS Transportation Research Conference will take place **May 20–21, 2008**. Previous issues of the *Report* listed it incorrectly. We apologize for the error. **CTS**