

News about transportation research and the work of the Minnesota Local Road Research Board

# LTAP Distance Learning Course Featured in Public Works Magazine

The Minnesota Local Technical Assistance Program's (LTAP) first distance-learning course — *Gravel Road Maintenance and Design* — was featured in *Public Works* Magazine. Modeled after a traditional classroom course, the online curriculum helps supervisory personnel, operators, and township officials better understand materials, new techniques, and equipment by allowing participants to take the quizzes and final test as often as necessary until they understand the material. The program, launched in 2012, has more than 79 students. Half the participants are Minnesotans; the rest comes from other states, Canada, and Botswana, Africa. So far, 40 people have graduated.

## Local Pavement Study Wins Research Award

A local pavement study has won a top research award from the University of Minnesota. The Center for Transportation Studies presented its 2013 Research Partnership Award to a multi-disciplinary team of researchers for its work on *Low Temperature Cracking in Asphalt Pavements, Phase II*. The national pooled-fund study addresses one of the most challenging and persistent transportation problems in cold-weather states: how asphalt pavements can endure harsh winter climates. Results will ultimately lead to reduced maintenance costs and smoother roads for drivers in Minnesota and other cold-climate states.

A collaboration between the LRRB, six state DOTs, four universities, and the Federal Highway Administration, several project team members were on hand to accept the award at a ceremony at the university's McNamara Alumni Center including State Aid Division Director **Julie Skallman**. A two-page technical summary and the full research report are available at <a href="http://www.dot.state.mn.us/research/2012-technical-summaries.html">http://www.dot.state.mn.us/research/2012-technical-summaries.html</a>.

## Happy Birthday, LRRB!

Founded in 1959, the LRRB has shared important news and developments with transportation engineers throughout Minnesota for nearly six decades. As the LRRB gets ready to kick off its 55th year in 2014, take a look at other statistics and milestones from 1959.

- The average cost of gas is \$0.25 per gallon.
- The average cost of a new car is \$2,200.
- Fidel Castro becomes the Prime Minister of Cuba.
- The United States adds Alaska (49th state) and Hawaii (50th state).
- The Grammy Music Awards is started.
- The Day the Music Died: Buddy Holly, Ritchie Valens, and the Big Bopper die in a plane crash.
- Barbara Millicent Roberts, the fashion doll known as "Barbie," is born.
- The MN LRRB is created!

## **LRRB** and RIC Member Updates

#### LRRB updates:

- The LRRB congratulates **Julie Skallman** on receiving the 2013 Ray L. Lappegaard Distinguished Service Award, which honors a transportation professional who displays outstanding leadership, mentorship, and support to the profession. "It is wonderful to be recognized for doing the things you think are the most fun in your world," Skallman said.
- Hafiz Munir has replaced Nicole Peterson as the Research Management Engineer for the LRRB.



Julie Skallman (center) receives the 2013 Ray L. Lappegaard Distinguished Service Award. Also pictured are Laurie McGinnis (Center for Transportation Studies Director) and Ann Johnson (2012 award winner).

## 2013-2014 Calendar of Events

August 25-28: National Rural ITS Conference (St. Cloud)

October 2-3: Minnesota Fall Maintenance Expo (St. Cloud Public Works Facility, St. Cloud)

November 14-15: Minnesota Toward Zero Deaths (TZD) Annual Conference (St. Cloud River Center)

November 21-22: American Public Works Association (APWA-MN) Chapter Fall Workshop and Conference

(Earle Brown Heritage Center, Brooklyn Center)

January 21-24: Minnesota County Engineers Association (MCEA) Annual Conference (Cragun's Resort, Brainerd)

January 29-31: City Engineers Association of Minnesota (CEAM) Annual Conference

(Earle Brown Heritage Center, Brooklyn Center)

February 5: TERRA Pavement Conference & Dust Control Conference (University of Minnesota, Saint Paul)

March 4-6: Transportation Conference (DoubleTree by Hilton, Bloomington)



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## **Highlighted RIC Projects**

#### MnDOT Produces New YouTube Videos

MnDOT Research Services has produced two new YouTube videos (available at <a href="http://www.youtube.com/user/MnDOTResearch">http://www.youtube.com/user/MnDOTResearch</a>):

- Choosing Stormwater Management Practices: A Decision Tree for Minnesota Cities and Counties
- Portable Weigh-in-Motion System Demonstration at MnROAD



#### Complete Streets Implementation Resource Guide

National movement and legislation regarding Complete Streets significantly impacts local agencies. The LRRB has funded the development of a *Complete Streets Implementation Resource Guide for Minnesota Local Agencies* to assist local agencies interested in developing their own policy. This resource includes a Complete Streets overview, a brief synthesis of local and national practices, a list of terms and definitions, an implementation guide, and local case studies. The guide is available at <a href="http://www.lrrb.org/media/reports/2013RICO2.pdf">http://www.lrrb.org/media/reports/2013RICO2.pdf</a>.

#### Crossroads: A Minnesota Transportation Research Blog

Did you know that MnDOT Research Services has a blog? A collaborative effort between MnDOT Research Services and the University of Minnesota's Center for Transportation Studies, *Crossroads* highlights the latest transportation news, events, research, and innovations in Minnesota. Visit <a href="http://mntransportationresearch.org">http://mntransportationresearch.org</a> to learn more.

#### **Dust Control of Aggregate Roads**

More than half of U.S. roadways are gravel roads, making them an important part of our transportation system. One of the major drawbacks and biggest complaints about gravel roads is the dust produced when vehicles drive on them. In addition to impacting residents that live along gravel roads, dust can also adversely affect air quality, the environment, and driver safety. To control the dust



on gravel roads, local agencies apply various dust suppressants to their roadways (mainly calcium chloride and magnesium chloride). However, several alternative dust suppressant options exist. The LRRB has developed a new document, *Dust Control of Aggregate Roads, A Brief Synthesis of Current Practices*, that summarizes a complete list of various dust suppressants, their effectiveness, and impacts. The full report, which includes additional information on Minnesota and Iowa practices, is available at <a href="http://www.lrrb.org/media/reports/2013RIC67.pdf">http://www.lrrb.org/media/reports/2013RIC67.pdf</a>.

# **Highlighted LRRB Projects**

### Field Testing Energy-Efficient Streetlights

Street lighting improvements can help local agencies save money while reducing their environmental footprints. While induction and light-emitting diode (LED) are commonly used energy-efficient light sources, street lighting is a relatively new application for these technologies. There has been little field testing of manufacturer performance claims (especially in cold-weather climates), so how do you know if these products really lower your energy bills and reduce maintenance costs?

A new report, 46th Street Pilot Street Lighting Project, compares manufacturer performance claims against actual results. Based on a 2010 study in which researchers examined the side-by-side performance of induction and LED streetlights in Minneapolis, the report also ranks energy-efficient lighting according to consumption, operating costs, maintenance, light levels, quality, and public response. The full article is available at <a href="http://www.lrrb.org/media/reports/201304.pdf">http://www.lrrb.org/media/reports/201304.pdf</a>.