Welcome to the Conference
The University of Minnesota’s Center for Transportation Studies is pleased to present its 21st Annual Transportation Research Conference, which acts as a forum for researchers and practitioners from Minnesota and the Upper Midwest to share their research findings in a variety of transportation-related areas. Concurrent sessions are focused in four categories that match the Center’s research emphasis areas – Transportation Safety and Traffic Flow, Transportation Infrastructure, Transportation and the Economy, and Transportation Planning and the Environment – with a fifth category covering Education and Outreach Issues.

Reception
A reception with hors d’oeuvres and a cash bar will take place following the final concurrent sessions on April 27 offering attendees a further opportunity to socialize with fellow participants and presenters.

Conference Presentations Online
PowerPoint presentations, for which we receive permission from the presenters, will be available in PDF format approximately seven days following the conference. These presentations will then be available for 30 days at the following Web site: www.cts.umn.edu/Events/ResearchConf/.
**PROGRAM AT A GLANCE**

**TUESDAY, APRIL 27, 2010**

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7:30-8:30 a.m. Registration and Buffet Breakfast

8:30-10:00 a.m. Welcome – Laurie McGinnis, Acting Director, Center for Transportation Studies

**Grand Ballrooms A-B**

*How Do National Transportation Priorities Influence Local Decisions?*

**Keynote Presentation:** *Building Momentum for Sustainable American High Speed Rail*

*Eric Peterson*, President, American High Speed Rail Alliance

Panelists: *Tim Henkel*, Modal Planning and Program Management Division Director, Mn/DOT; *David Levinson*, Associate Professor and Richard P. Braun/CTS Chair in Transportation Engineering, University of Minnesota; *Jim McDonough*, Commissioner, Ramsey County; *Bob McFarlin*, District 3 Member, Metropolitan Council

10:00-10:30 a.m. Break and Poster Session

10:30-11:45 a.m.

**Session 1**

What We Know About Keeping Older Drivers Safe Through Research and Education

**Session 2**

Promoting Alternative Work Arrangements and Modes

**Session 3**

High-Speed Rail: A National, Regional, and State Update

**Session 4**

Maximizing Our Highways

**Session 5**

University Research Impacting Pavement Design

11:45 a.m.-1:30 p.m. Luncheon and Presentation

**Grand Ballrooms A-B**

*Keynote Presentation—Megaregions: A Framework for Planning in the 21st Century*

*Dr. Catherine Ross*, Director, Center for Quality Growth and Regional Development, Georgia Institute of Technology

1:30-1:45 p.m. Break, Poster Session, and Book Signing

1:45-3:00 p.m.

**Session 6**

Driving “Toward Zero Deaths” on Rural Roads

**Session 7**

The Importance of Public Outreach in Building Community Trust and Successful Partnerships

**Session 8**

Transportation and Urban Design

**Session 9**

Unique Challenges and Innovative Solutions in Transportation Planning

**Session 10**

Pavement Tools That You Can Use

3:00-3:15 p.m. Break and Poster Session

3:15-4:30 p.m.

**Session 11**

Metro Area Developments: Detection, Perception, and Reflection

**Session 12**

Getting Around: Creative Solutions for Rural Communities

**Session 13**

Project Scoping and Cost Management in Action

**Session 14**

Non-Motorized Transportation

**Session 15**

Innovations in Pavement Recycling

4:30-5:30 p.m. Reception with Hors d’oeuvres and Cash Bar

**WEDNESDAY, APRIL 28, 2010**

8:00-8:30 a.m. Continental Breakfast

8:30-10:15 a.m.

**Session 16**

Keeping the Road Visible

**Session 17**

Innovations in the Communication and Exchange of Transportation Information

**Session 18**

Support and Sustainability of Innovative Transportation Funding

**Session 19**

Transportation’s Changing Impact on the Environment

**Session 20**

Bridge Monitoring

10:15-10:30 a.m. Break

10:30 a.m.-Noon

**Session 21**

Strategies for Improving Roadway Safety

**Session 22**

Innovations in the Communication and Exchange of Transportation Information

**Session 23**

Freight and Rail Planning

**Session 24**

Public Transit in the Twin Cities: Challenges, Opportunities, and Solutions

**Session 25**

Storm Water Management

Noon Adjourn
Minnesota leaders will discuss how our state can position itself for additional federal funding. Based on successes by other states, Eric Peterson, President, American High Speed Rail Alliance, will provide the keynote presentation, “Building Momentum for Sustainable American High Speed Rail.” Peterson also share how focusing on national priorities impacts or doesn't impact road, bridge, and transit projects that have been identified as investment priorities in Minnesota.

10:00-10:30 Break and Poster Session

10:30-11:45 Concurrent Sessions

1 What We Know About Keeping Older Drivers Safe Through Research and Education MEETING ROOM 6
Moderator: Lowell Benson
Translating Mixed-Method Research into a TV Documentary Educating Mature Drivers
Catherine Sullivan, St. Catherine University
The Effectiveness of Changeable Message Signs and the Aging Population
Kathleen Harder, College for Design in Health, University of Minnesota

2 Promoting Alternative Work Arrangements and Modes MEETING ROOM 5
Moderator: Brian Smalkoski, Kimley-Horn and Associates, Inc.
Lessons Learned from eWorkPlace, a State-sponsored Telework Initiative in the Twin Cities
Adeel Lari, Humphrey Institute of Public Affairs, University of Minnesota

3 High Speed Rail: A National, Regional, and State Update MEETING ROOM 4
Moderator: Dan Krom, Minnesota Department of Transportation
Future of High Speed Passenger Rail in Minnesota and the Midwest
Dave Christianson, Minnesota Department of Transportation
US High Speed Rail – The New Holy Grail
Stephanie Eiler, CH2M Hill, Inc.
Intra-Minnesota Lines
Dan Krom, Minnesota Department of Transportation

4 Maximizing Our Highways MEETING ROOM 3
Moderator: Connie Kozlak, Metropolitan Council
Metropolitan Highway System Investment Study
Carl Ohrn, Metropolitan Council
Congestion and Safety Management in the Twin Cities: What Does the Future Hold?
Dave Montebello, SRF Consulting Group, Inc.
Innovative Techniques for Delivering the Twin Cities’ Urban Partnership Agreement on Schedule and Under Budget
Craig LaMothe, Metropolitan Council/Metro Transit

5 University Research Impacting Pavement Design MEETING ROOM 2
Moderator: Jan Lucke, Center for Transportation Studies, University of Minnesota
Soil Modulus Testing and FDR
Joe Labuz, Department of Civil Engineering, University of Minnesota

PG Binder Selection in Minnesota
Mihai Marasteanu, Department of Civil Engineering, University of Minnesota and Jim McGraw, Minnesota Department of Transportation
Implements of Husbandry
Lev Khazanovich, Department of Civil Engineering, University of Minnesota
6 Driving “Toward Zero Deaths” on Rural Roads
MEETING ROOM 6
Moderator: Carla Stueve, SRF Consulting Group, Inc.
An Update on Strategic Safety Planning for Minnesota Counties
Howard Preston, CH2M HILL, Inc.
Summary of Rural Safety Policy Improvement Index Project
Keith Knapp, Center for Excellence in Rural Safety, University of Minnesota
Rural ITS Safety Solution Systems
Tom Sohrweide, SEH Inc.

7 The Importance of Public Outreach in Building Community Trust and Successful Partnerships
MEETING ROOM 5
Moderator: Mindy Carlson, Center for Transportation Studies, University of Minnesota
The Critical Role of Public Outreach and Education in the Successful Implementation of Pricing Projects
Ferrol Robinson, Humphrey Institute of Public Affairs, University of Minnesota
Ombudsman’s Office Resolves Issues and Rebuilds Trust
Deb Ledvina, Minnesota Department of Transportation
Planning Participation Case Study: Successes, Challenges, and Lessons Learned in Land Use Planning Efforts Adjacent to an LRT Station
Julie Quinn, Metropolitan Council/Metro Transit

8 Transportation and Urban Design
MEETING ROOM 4
Moderator: Dave Montebello, SRF Consulting Group, Inc.
Partnering with Mn/DOT for Complete Streets
Scott Bradley, Minnesota Department of Transportation
NorthStar Commuter Rail Update
Mark Fuhrmann, Metropolitan Council
Linking Transportation Initiatives with City Design Options: Re-thinking the University/Cedar Avenue LRT Station
Ignacio San Martin, School of Architecture, University of Minnesota

9 Unique Challenges and Innovative Solutions in Transportation Planning
MEETING ROOM 3
Moderator: Biz Calburn
“Rock-On” – A New Life for the Rock Island Swing Bridge
Chris Hiniker, SEH, Inc.; Eric Carlson, City of Inver Grove Heights
Roadway Improvement Project Cost Allocation
Craig Vaughn, SRF Consulting Group, Inc.
Bus Staging and Layover Space in Downtown Minneapolis
Charles Carlson, Metro Transit

10 Pavement Tools That You Can Use
MEETING ROOM 2
Moderator: Jerry Geib, Minnesota Department of Transportation
Unsaturated Soil Mechanics Implementation
John Siekmeier, Minnesota Department of Transportation
FWD User Tools for Local Roads
David Rettner, American Engineering Testing, Inc.
A Novel Nondestructive Method for QC/QA of Concrete Pavements Testing
Kyle Hoegh, Department of Civil Engineering, University of Minnesota

11 Metro Area Developments: Detection, Perception, and Reflection
MEETING ROOM 6
Moderator: Matt Gjersvik, Minnesota Department of Transportation
Non-Intrusive Technologies Phase III
Erik Minge, SRF Consulting Group, Inc.
User Perceptions of Fee Lane Concepts in Minnesota
Kenneth Buckeye, Minnesota Department of Transportation
The Urban Partnership Agreement – Successes and Lessons Learned So Far
Brian Kary, Minnesota Department of Transportation

12 Getting Around: Creative Solutions for Rural Communities
MEETING ROOM 5
Moderator: Jan Ekern, Minnesota Department of Transportation
Karen Sprattler, Sprattler Group
Itasca County Area Transportation Study
Frank Douma, Humphrey Institute of Public Affairs, University of Minnesota; Becky LaPlant, Blandin Foundation

13 Project Scoping and Cost Management in Action
MEETING ROOM 4
Moderator: Mike Barnes, Minnesota Department of Transportation
Project Management Peer Review
Jean Wallace, Minnesota Department of Transportation

14 Non-Motorized Transportation Recycling
MEETING ROOM 3
Moderator: John S. Adams, University Metropolitan Consortium, University of Minnesota
Temporal and Spatial Variation in Non-motorized Traffic: Some Exploratory Analyses
Greg Lindsey and Spencer Agnew, Humphrey Institute of Public Affairs, University of Minnesota
Counting Bicyclists and Pedestrians
Shaun Murphy, City of Minneapolis
Analyzing Bicycle-Motorist Crashes in Minneapolis
Rose Ryan, Humphrey Institute of Public Affairs, University of Minnesota

15 Innovations in Pavement Recycling
MEETING ROOM 2
Moderator: Roger Olson, Minnesota Department of Transportation
Rubblization: A Cost-Effective Option
Jill Thomas, Minnesota Asphalt Pavement Association
PCC Mix Designs Using Recycled Concrete Pavements
Mary Vancura, Department of Civil Engineering, University of Minnesota
Recycled Unbound Base Pooled Fund Study
Tuncer Edil, University of Wisconsin

4:30-5:30
Reception – Hors d’oeuvres and Cash Bar
WEDNESDAY, APRIL 28, 2010

8:00-8:30 a.m.
Continental Breakfast

8:30-10:15
Concurrent Sessions

16 Keeping the Road Visible
MEETING ROOM 6
Moderator: Steve Lund, Minnesota Department of Transportation
Rural Road Safety and Maintenance
Roadway Safety Workshops
Carla Stueve and Renae Kuehl, SRF Consulting Group, Inc.
Minnesota Local Agency Pavement Marking Practices
Neal Hawkins and Omar Smadi, Center for Transportation Research and Education, Iowa State University
Minnesota Toolkit – Information for Local Agencies to Meet FHWA’s Sign Retroreflectivity Requirements
Renae Kuehl, SRF Consulting Group, Inc.; Mark Vizecky, Minnesota Department of Transportation
Snow Rendering for Interactive Snowplow Simulation – Improving Driver Ability to Avoid Collisions When Following a Snowplow
Peter Willemsen, University of Minnesota, Duluth

17 Innovations in the Communication and Exchange of Transportation Information
MEETING ROOM 5
Moderator: Nathan Bowie, Minnesota Department of Public Safety
A Generational Checklist for Communicating Research
Bob Filipczak, Minnesota Department of Transportation
Collaborative Information Services Between Minnesota Public Agencies
Sheila Hatchel, Minnesota Department of Transportation and Arlene Mathison, Center for Transportation Studies, University of Minnesota
Evolution of Social Media Policy for State Agencies
Linda Dahlen, Minnesota Department of Transportation
Innovative Public Outreach
Gina Baas, Center for Transportation Studies, University of Minnesota

18 Support and Sustainability of Innovative Transportation Funding
MEETING ROOM 4
Moderator: Adeel Lari, Humphrey Institute of Public Affairs, University of Minnesota
Should the Fuel Tax be Replaced?
Lee Munnich, Humphrey Institute of Public Affairs, University of Minnesota
Sustainable Transportation Funding Options for Minnesota
Philip Schaffner and Jason Junge, Minnesota Department of Transportation
Mn/DOT Quantitative Survey on Public Perceptions of Mileage-based User Fees
Ken Buckeye, Minnesota Department of Transportation
ITS and Privacy: Suggestions for Peaceful Coexistence
Frank Douma, Humphrey Institute of Public Affairs, University of Minnesota; Sara Aue, University of Minnesota Law School

19 Transportation’s Changing Impact on the Environment
MEETING ROOM 3
Moderator: Gavin Poindexter, URS Corporation
Assessing Elements of a Low Carbon Transportation Fuel Standard for Minnesota
Steve Taft, Department of Applied Economics, University of Minnesota
Travel Demand Management – Planning, Environment, Pricing, Sustainability
Bill Obermann, Urban Trans; John Doan, SRF Consulting Group, Inc.
Addressing Climate Change in Environmental Impact Analysis
Carissa Schively Slotterback and Garrett Peterson, Humphrey Institute of Public Affairs, University of Minnesota

20 Bridge Monitoring
MEETING ROOM 2
Moderator: Romeo Garcia, Federal Highway Administration
Vibration Inspection Techniques to Rapidly Assess the Health of Rural Bridges
Brian Brashaw, Natural Resources Research Institute, University of Minnesota, Duluth
Long-Term Bridge Performance Program in Minnesota
John Penrod, Federal Highway Administration
I-35W St. Anthony Falls Bridge Structural Monitoring
Cathy French, Department of Civil Engineering, University of Minnesota

10:15-10:30
Break

21 Strategies for Improving Roadway Safety
MEETING ROOM 6
Moderator: Bryant Ficek, TKDA
Improving Transportation Safety Through Accident Investigation
Vernon Ellingstad, National Transportation Safety Board
Center for Excellence in Rural Safety Research and Outreach Activities
Keith Knapp, Center for Excellence in Rural Safety, University of Minnesota
New Methodologies to Identify Candidates for Safety Investment
Howard Preston, CH2M Hill, Inc.

22 Innovations in the Communication and Exchange of Transportation Information
MEETING ROOM 2
Moderator: Gina Baas, Center for Transportation Studies, University of Minnesota
Panelists
Shannon Tyree, City of St. Paul; Lee Munnich, Humphrey Institute of Public Affairs, University of Minnesota; Phil Barnes, Minnesota Department of Transportation; John S. Adams, University Metropolitan Consortium, University of Minnesota

23 Freight and Rail Planning
MEETING ROOM 4
Moderator: Bill Gardner, Minnesota Department of Transportation
Minnesota Statewide Comprehensive Freight and Passenger Rail Plan
Dave Christianson, Minnesota Department of Transportation
Freight Performance Analysis on I-94/I-90 from the Twin Cities to Chicago
Chen-Fu Liao, Department of Civil Engineering, University of Minnesota

An Assessment of the Impact of Competition on Rail Rates for Agricultural Shipments
Kurt Markham, Minnesota Department of Agriculture

Northern and Western Minnesota Regional Freight Studies
Brian Shorten, SRF Consulting Group, Inc.

Public Transit in the Twin Cities: Challenges, Opportunities, and Solutions
METEERING ROOM 3
Moderator: John Levin, Metro Transit

Mining Bus Location, Passenger Count and Fare Collection Database for Intelligent Transit Applications
Henry Liu, Department of Civil Engineering, University of Minnesota

Transit Cost-Effectiveness: The C.E.I. Demystified
Steve Wilson, SRF Consulting Group, Inc.

Impacts of the Hiawatha Light Rail Line on Commercial and Industrial Property Values in Minneapolis
Jason Cao, Humphrey Institute of Public Affairs, University of Minnesota

Can LRT Improve the Job Access of the Working Poor?
Yingling Fan, Humphrey Institute of Public Affairs, University of Minnesota

25 Storm Water Management
MEETING ROOM 2
Moderator: Jill Thomas, Minnesota Asphalt Pavement Association

Porous Pavement for Storm Water Management
Clifton Aichinger, Ramsey-Washington Metro Watershed District

SAFL Baffle Improves Standard Sump as a Stormwater Treatment BMP
Adam Howard, St. Anthony Falls Laboratory

Porous Pavements in the City of Robbinsdale's Residential Streets
Ed Matthiesen, Wenck Associates, Inc.; Richard McCoy, City of Robbinsdale

Noon
Adjourn

Professional Development Hours (PDHs)
This conference awards Professional Development Hours (PDHs).

AICP Maintenance Credits
This conference awards AICP maintenance credits. A complete list of sessions approved for credit will be available on the CTS Web site and at the conference.

Mark Your Calendars
Toward Zero Deaths Conference
October 25-26, 2010
St. Paul, Minnesota

Planning Committee
John Adams, University of Minnesota
Lowell Benson
Ken Buckeye, Mn/DOT
Biz Calburn
Frank Douma, University of Minnesota
Jonathan Ehrlich, Metropolitan Council
Jan Ekern, Mn/DOT
Yingling Fan, University of Minnesota
Bryant Ficek, TKDA
Romeo Garcia, Federal Highway Administration
Jerry Geib, Mn/DOT
Matt Gjersvik, Mn/DOT
Sue Groth, Mn/DOT
Bruce Holdhusen, Mn/DOT
Mike Iacono, University of Minnesota
Connie Kozlak, Metropolitan Council
Gavin Poindexter, URS Corporation
Ray Rought, Mn/DOT
Paul Rowekamp, Mn/DOT
Art Schulz, University of Minnesota
Brian Smalkoski, Kimley-Horn and Associates, Inc.
Carla Stueve, SRF Consulting Group, Inc.
Jill Thomas, Minnesota Asphalt Pavement Association
Gavin Poindexter, URS Corporation
Shannon Tyree, City of St. Paul
Ben Worel, Mn/DOT

Assisted by Center for Transportation Studies staff

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