10:15–10:30 a.m.—Break

10:30–11:45 a.m.—Concurrent Sessions

Session 1: Roadway Safety
Moderator: Tom Sohrweide, SEH, Inc.

Performance-Based Superelevation Transition Design
James Rosenow, Minnesota Department of Transportation

Spreadsheet Tool for Time-of-Day Use of Flashing Yellow Arrows
Vahid Moshtagh, SRF Consulting Group, Inc.

Safety Performance Functions for Permitted Left-Turn Crashes Based on Different Crash Databases
Vahid Moshtagh, SRF Consulting Group, Inc.

Session 2: Transit: It’s Not Just About Moving People
Moderator: Lyssa Leitner, Washington County

Improving Transit Safety and Efficiency Using Open-Source Analytics and Visualization Tools
Joel Huting, Metro Transit

Network Modeling: Ridership on the Twin Cities Transit Network Before and After METRO Green Line Implementation
Jacqueline Nowak, College of Science and Engineering, University of Minnesota

When and How Much Did the Green Line LRT Increase Residential Property Values in St. Paul, Minnesota?
Shengnan Lou, Humphrey School of Public Affairs, University of Minnesota

Session 3: Growing the Transportation Workforce in Minnesota
Moderator: Stephanie Malinoff, Center for Transportation Studies, University of Minnesota

According to a recent federal report, transportation-related employers will need to hire and train a total of 4.6 million new workers—1.2 times the current transportation workforce—due to expected growth, retirements, and turnover in the transportation industry from 2012 to 2022. Is Minnesota ready to answer this need? This session will highlight workforce development initiatives underway in Minnesota at both the state and local levels. Panelists will briefly describe programs currently underway to help meet this workforce demand, and time will be allocated for audience discussion with the panelists following their presentations.
Panelists:
Liz Grzechowiak, Concessions & Business Development, Metropolitan Airports Commission; Gary Courtney, Office of Equal Opportunity, Metropolitan Council; Calahena Merrick, Office of Human Resources, Minnesota Department of Transportation; Don Theisen, Public Works, Washington County

Session 4: Curtailing Congestion
Moderator: Nick Thompson, WSP|Parsons Brinckerhoff

Massive GPS Travel Pattern Data for Urban Congestion Relief in the Twin Cities
Paul Morris, SRF Consulting Group, Inc.

Clogged Arteries: Empirical Analysis of Highway Congestion
Vivek Sakhrani, Canadian Pacific Consulting Services

A Framework for Evaluating Dynamic Methods of Multimodal Arterial Traffic Control
Ted Morris, Computer Science and Engineering, University of Minnesota

11:45 a.m.—1:30 p.m.—Luncheon and Presentation
Keynote: How to Promote and Prepare for Automated Driving
Bryant Walker Smith, Assistant Professor, School of Law, University of South Carolina

This presentation will outline steps that governments can take to encourage the development, deployment, and use of automated driving systems. Built on a solid understanding of the related technologies, applications, and existing legal infrastructure, these steps include key administrative, legal, and community strategies that focus as much on today’s problems as tomorrow’s solutions.

1:30—1:45 p.m.—Break

1:45–3:00 p.m.—Concurrent Sessions

Session 5: Q&A on CV/AV Technology and Policy
Moderator: Philip Schaffner, Minnesota Department of Transportation

This session will be an exploration on the technical perspectives of connected vehicles, including the general timelines on when the technology will be widely available and the benefits associated with its use.

Panelists:
Imran Hayee, Electrical Engineering, University of Minnesota Duluth; Ken Buckeye, Minnesota Department of Transportation; Frank Douma, Humphrey School of Public Affairs, University of Minnesota

Session 6: Looking at the Bigger Picture: Multimodal Visualization and Mapping
Moderator: Jacob Achtemeier, HumanFIRST Laboratory, University of Minnesota

Industry Clusters, Supply Chains, and the Freight Economy
Lee Munnich, Humphrey School of Public Affairs, University of Minnesota

Mapping Bicycle and Pedestrian Crashes of St. Paul (and Greater Minnesota)
Rebecca Barney, District Council Collaborative/ Minnesota Department of Transportation/ University of Minnesota/ U-Spatial

Session 7: Advancing Sustainable Transportation and Community-Engaged Learning Through the Resilient Communities Project
Moderator: Mike Greco, Center for Urban and Regional Affairs, University of Minnesota

The Resilient Communities Project (RCP) is a highly successful, cross-disciplinary program at the University of Minnesota that supports one-year partnerships between the university and local government agencies in Minnesota, facilitating faculty-supervised course-based projects that address community-identified environmental, social, economic, and transportation issues and needs. This session will feature a panel discussing their firsthand experience working with RCP. Panelists will describe the program model; discuss strategies, challenges, and lessons learned for incorporating RCP projects in the classroom; and explore the community benefits and impacts of RCP partnerships.

Panelists:
John Gulliver, Department of Civil, Environmental and Geo-Engineering, University of Minnesota; James Wheeler, Department of Architecture, University of Minnesota; Sarah Sularz, Graduate of Department of Landscape Architecture, University of Minnesota; Tyler Olsen, Graduate of Department of Civil, Environmental and Geo-Engineering, University of Minnesota; Nate Kabat, City of Chaska
Session 8: Pioneering Pavements and Maintenance: The Future of Minnesota’s Roads
Moderator: Mark Maloney, City of Shoreview

Winter Maintenance Assessment Tool (WMAt)
Connie Fortin, Fortin Consulting, Inc.

Nondestructive Evaluation of Bituminous Compaction Uniformity: GPR Technologies to Enhance Quality Control on Asphalt Pavements
Lev Khazanovich, Department of Civil, Environmental, and Geo- Engineering, University of Minnesota

An Overview of Recent Taconite-Based Repair and Pavement Preservation Applications: Innovative Pavement Repair and Patching Project and Alaska Glenn Highway Sand Seal Project
Lawrence Zanko, Natural Resources Research Institute, University of Minnesota Duluth

3:00–3:15 p.m.—Break

3:15–4:30 p.m.—Concurrent Sessions

Session 9: Technology and Safety
Moderator: Dan Rowe, Minnesota Department of Transportation

Truck Rollover Warning Systems Evaluation
Tom Sohrweide, SEH Inc.

Collision Avoidance System on an Instrumented Bicycle
Woongsun Jeon and Rajesh Rajamani, Department of Mechanical Engineering, University of Minnesota

Rural Intersection Collision Warning System (RICWS) Evaluation and Design Investigation
Disi Tian, HumanFIRST Laboratory, University of Minnesota

Session 10: Economic Impacts of Different Modes
Moderator: Jonathan Ehrlich, Metropolitan Council

Manufacturers’ Perspectives on Minnesota’s Transportation System: Summary Results from South, Central, and Northwest Minnesota
Donna Koren, Minnesota Department of Transportation

Estimating the Economic Impact of the Health Benefits Associated with Bicycle Commuting
Xinyi Qian, Tourism Center, University of Minnesota

Local Support of Light Rail in the Twin Cities
Wesley Durham, Humphrey School of Public Affairs, University of Minnesota

Session 11: A Modal Discussion: Linking Creative Environmental Justice and Title VI Analysis to Equity and Community Engagement Through the Minnesota Freight Plan
Moderator: Wanda Kirkpatrick, Metropolitan Council

Title VI of the Civil Rights Act and Executive Order 12898 define the populations that federal actions cannot have a disproportionately high adverse effect on or discriminate against. But how can we more creatively analyze Title VI and Environmental Justice concepts in order to create a more equitable state and region? This session will feature a presentation on how the Minnesota Freight Plan considered Environmental Justice and will then host a multimodal panel discussion.

Panelists:
Chris Ryan, SRF Consulting Group, Inc.; John Tompkins, Minnesota Department of Transportation; Cyndi Harper, Metro Transit; Jansa Hadzic, Minnesota Department of Transportation; Anita Urvina, Richardson, Richter, and Associates, Inc.

Session 12: Roadside Maintenance and the Environment
Moderator: Andy Golfis, System G Inc.

Treatment of Runoff with Roadside Drainage Ditches
Maria Garcia-Serrana, St. Anthony Falls Laboratory, University of Minnesota

Iron-Enhanced Ditch Checks in Roadside Drainage Ditches Can Mitigate Runoff
Poornima Natarajan, St. Anthony Falls Laboratory, University of Minnesota

Developing Sustainable Turfgrass Mixtures for Roadsides in Minnesota
Eric Watkins, Department of Horticultural Science, University of Minnesota

4:30–5:30 p.m.—Reception
Hors d’Oeuvres and Cash Bar

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