15TH NATIONAL CONFERENCE ON

Transportation Asset Management

MONDAY–THURSDAY

August 25–28, 2025

CHICAGO, ILLINOIS

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The Institute for Transportation (InTrans) at Iowa State University administers 14 centers and programs with several distinct yet affinitive research specialties and a variety of technology transfer and professional education initiatives.

The Center for Transportation Research and Education (CTRE) is administered by InTrans. CTRE performs transportation-related research, outreach, and educational activities in four major areas: safety, asset management, operations, and planning. CTRE researchers create new knowledge and practical tools for transportation professionals.

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SCHEDULE AT-A-GLANCE

SESSION THEMES

❶ Asset Management Practices
   (Including Case Studies)
❷ Asset Management 101
❸ Ask the Asset Management Doctors
❹ Communicating Asset Management
   Process and Results

❺ Data Practices in Asset Management
❻ Innovative Concepts in Asset Management
❼ Resilience and Asset Management
❽ Risk and Asset Management
❾ Tactical Practices in Asset Management

Monday, August 25		
7:30 AM–5:00 PM	Registration	Continental Foyer
8:30 AM–4:30 PM	AASHTO Peer Exchange (By Invitation Only)	Continental Room C
8:30 AM–4:30 PM	AISIM	Lake Ontario
5:30 PM–7:30 PM	Reception Exhibit Hall Open	Continental Rooms A&B

SCHEDULE AT-A-GLANCE

Tuesday, August 26		
7:30 AM–8:30 AM	Breakfast	Continental Rooms A&B
7:30 AM–5:00 PM	Registration	Continental Foyer
8:30 AM–10:00 AM	Opening Plenary Session	Continental Room C
10:00 AM–7:00 PM	Exhibitors	Continental Rooms A&B
10:00 AM–10:30 AM	Morning Break	Continental Rooms A&B
Concurrent Session 1 10:30 AM–12:00 PM	❶ **Asset Management Practices (Including Case Studies)** *The Light at the End of the Tunnel: A Comprehensive Lifecycle Planning Approach for Tunnel Infrastructure* *Effective Lifecycle Planning* *A Framework for Building a Business Case for Transportation Asset Maintenance Funding*	Lake Michigan
	❻ **Innovative Concepts in Asset Management** *Program Trade-off and Budget Distribution Framework Developed in a Digital Platform* *Advancing Infrastructure Management: MnDOT's NiceConnect Project for Data Interoperability and Innovation* *Advancing Pavement Management Systems Through Integrated Asset Prioritization: A Case Study from West Sacramento, California*	Lake Erie
	❼ **Resilience and Asset Management** *Transport Infrastructure Ireland's Vulnerability Assessment Framework* *Risk Management and Resilience: MnDOT* *Quantitative Risk Analysis of Frequently Flooded Roadways*	Lake Ontario
	❶ **Asset Management Practices (Including Case Studies)** Invited Panel Session *Pavement Management Systems for Local Municipal Agencies, State of Current Conditions and Practices*	Lake Huron
12:00 PM–1:30 PM	Lunch	Continental Rooms A&B

SCHEDULE AT-A-GLANCE

	Tuesday, August 26	
Concurrent Session 2 1:30 PM–3:30 PM	❶ **Asset Management Practices (Including Case Studies)** *Where Are You in Your Asset Management Journey?* *Asset Management Education for the Next Generation of Practitioners and Researchers: Lessons Learned from Bootcamp* *Stakeholder Buy-in and Engagement: Asset Management Program Implementation Through Effective Change Management* *The Art of the Asset Management Plan: Lessons from Yesterday and Today*	Lake Michigan
	❻ **Innovative Concepts in Asset Management** *Enhancing Asset Management Lifecycle Through Digital Delivery* *Developing TAMP Knowledge Book to Support Workforce Success* *Leveraging AI and Machine Learning for RGA Asset Management in KSA* *Management Framework for Electrified Roadways Integrating Economic, Environmental, and Risk Analyses Through an Expert-Based Approach*	Lake Erie
	❺ **Data Practices in Asset Management** *From Satellites to Streets: A Remote Sensing and AI Framework for Pavement Management* *Leveraging Decision Support Tools for Data-Driven Asset Management Dashboards* *Transportation Asset Management Leveraging Mobile Lidar Systems* *Connected Vehicle Data Driving Better Outcomes in Road Safety and Asset Management*	Lake Ontario
	❷ **Asset Management 101**	Lake Huron
	❻ **Innovative Concepts in Asset Management** Mini-Workshop *Geotechnical Asset Management: Improving the Foundations of Transportation Network*	Continental Room C
3:30 PM–4:00 PM	Afternoon Break	Continental Rooms A&B

SCHEDULE AT-A-GLANCE

	Tuesday, August 26	
Concurrent Session 3 4:00 PM–5:30 PM	❼ **Resilience and Asset Management** Mini-Workshop *NCHRP 23-32 Transportation Asset Risk & Resilience – Development of a Standard Method of Assessment*	Lake Michigan
	❶ **Asset Management Practices (Including Case Studies)** Invited Panel Session *Case Studies in Asset Valuation*	Continental Room C
	❺ **Data Practices in Asset Management** *Michigan DOT Experiences Using the AASHTO TAM Data Guide to Advance Agency Enterprise Asset Management* *From Data to Action: A Practical, Data-Driven Approach to Identifying Trackbed Defects* *Hybrid Data Processing Approach for Overcoming Data Challenges in AI-Powered Pavement Preservation: An Iowa DOT Case Study*	Lake Ontario
	❻ **Innovative Concepts in Asset Management** *Asset Information Management System (AIMS) – Bringing Everything Together* *Public Private Partnerships in Asset Management for Upgrading and Maintaining Existing Roads* *Asset Management of Active Travel Infrastructure (ATI): An Irish Case Study*	Lake Erie
	❹ **Communicating Asset Management Process and Results** Mini-Workshop *Using Emerging and Asset Technologies for Asset Management*	Lake Huron
6:00 PM–10:00 PM	**Gala** Buses start leaving at 6:00 PM Buses start returning at 9:30 PM	TAO Chicago

SCHEDULE AT-A-GLANCE

Wednesday, August 27		
7:00 AM–8:00 AM	Breakfast	Continental Rooms A&B
7:00 AM–12:00 PM	Registration	Continental Foyer
Concurrent Session 4 8:00 AM–10:00 AM	❻ **Innovative Concepts in Asset Management** Invited Panel Session *Challenges and Wins in Data-Driven Transit Asset Maintenance*	Lake Erie
	❹ **Communicating Asset Management Process and Results** Mini-Workshop *Post-Implementation Evaluations for Asset Management: A Hands-on Workshop for Measuring and Communicating Project Outcomes*	Lake Michigan
	❽ **Risk and Asset Management** *Risk Management Framework for Use at DelDOT* *Applications of Geotechnical Resilience-Based Design and Assessment in Bridges Design and Management* *Corridor Risk Tool at the Minnesota Department of Transportation*	Lake Ontario
	❻ **Innovative Concepts in Asset Management** Mini-Workshop *Uniting Safety and Pavements for Pavement Friction-Informed Asset Management: International/US Success Stories*	Lake Huron
	Panel Discussion ❸ **Ask the Asset Management Doctors**	Continental Room C
10:00 AM–10:30 AM	Morning Break	Continental Rooms A&B

SCHEDULE AT-A-GLANCE

	Wednesday, August 27	
Concurrent Session 5 10:30 AM–12:00 PM	❶ **Asset Management Practices (Including Case Studies)** *Tools and Technology for Roadside Vegetation Asset Management* *Optimizing Roadway Safety & Performance with AI and GIS: Lessons from Richland County, OH* *The Enhanced Role of Risk Registers in Developing a Framework for Integrating Performance, Risk, and Process Management in Transportation Agencies*	Lake Michigan
	❶ **Asset Management Practices (Including Case Studies)** Invited Panel Session *A Conversation with the Asset Management Expert Task Group*	Lake Ontario
	❻ **Innovative Concepts in Asset Management** Invited Panel Session *AI Applications in AM: An International Perspective*	Lake Erie
	❻ **Innovative Concepts in Asset Management** Mini-Workshop *Incorporation of Structural Response into Asset Management*	Lake Huron
12:00 PM–1:30 PM	Lunch	Continental Rooms A&B

SCHEDULE AT-A-GLANCE

	Wednesday, August 27	
Concurrent Session 6 1:30 PM–3:30 PM	❾ **Tactical Practices in Asset Management** *Implementing Strategic Scanning Technologies for Pavement and Bridge Distress Quantification* *A Data-Driven Approach to Ancillary Structures Management: MDOT Ancillary Structures Condition Forecasting System (ASCFS)* *SIMSA: A Unified Tactical Approach to Multi-Asset Inventory and Condition Monitoring* *Evaluation of UAV-Mounted Lidar Systems for Surface Roughness Characterization by Computing the International Roughness Index (IRI)*	Lake Michigan
	❹ **Communicating Asset Management Process and Results** *Developing a SAMP to Drive Improvement, Innovation, and Collaboration Across MDOT* *Bridges and Budgets: The Real Cost of Deferred Road Maintenance* *Communicating and Managing Change: A Recent Experience and Practices* *Communicating TAM Throughout the Agency*	Lake Erie
	❶ **Asset Management Practices (Including Case Studies)** *Creation of the Asset Management Organization at DelDOT* *Integrating Highway and Transit Asset Management at the Connecticut Department of Transportation* *How to Meet MUTCD Mandatory Retroreflectivity Compliance: Methods to Assess and Map Pavement Marking Retroreflectivity Condition* *Streamlining Work Planning for Maintenance Workforces*	Lake Ontario
3:30 PM–4:00 PM	Afternoon Break	Continental Rooms A&B
4:00 PM–5:30 PM	Closing Plenary Session	Continental Room C

SCHEDULE AT-A-GLANCE

Thursday, August 28		
Optional Workshops 8:00 AM–12:00 PM	*Resilience in Asset Management Plans (AMPs): A Lifecycle Approach to Weathering the Unpredictable*	Lake Erie
	Asset Management and Digital Delivery	Lake Ontario
	Building a Road Map for Adding the Value of GPR into Asset Management	Lake Michigan
10:00 AM–12:00 PM	Pooled Fund Meeting (By Invitation Only)	Lake Huron

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SESSION THEMES

❶ Asset Management Practices
   (Including Case Studies)
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MONDAY, AUGUST 25

7:30 AM–5:00 PM
Registration
Continental Foyer

8:30 AM–4:30 PM
AASHTO Peer Exchange (By Invitation Only)
Continental Room C

Peer Exchange Theme
Communicating Asset Management Information and Outcomes

The 2025 American Association of State Highway and Transportation Officials (AASHTO) Transportation Asset Management (TAM) Peer Exchange will explore how effective communication and visualization of asset information can strengthen TAM programs in transportation agencies. As transportation agencies face increasing pressures—from safety goals and efficiency mandates to limited funding and performance requirements—the need to clearly convey asset data to both internal and external stakeholders has never been greater. Good TAM practice requires telling a compelling story with data to justify those decisions and align across the organization.

This year's peer exchange will focus on sharing innovative practices, tools, and communication strategies that improve transparency, support informed choices, and promote trust. Sessions will feature presentations from practitioners, followed by interactive discussions to exchange experiences and lessons learned. Topics will include the role of graphics and dashboards, data storytelling, the integration of non-TAM specific objectives in asset performance-based frameworks, and the communication of trade-offs and priorities.

The event will conclude with a collaborative dialogue on how to bring all these elements together—highlighting needs for further research, new tools, and organizational strategies to support the TAM community nationwide.

Peer Exchange Purpose
- Advance the state of TAM practice by sharing lessons learned across agencies
- Identify key ingredients for the effective communication of TAM information
- Explore available tools, data strategies, and visualization techniques that support more transparent and objective TAM decision-making
- Envision the future of TAM-informed communications for better agency decision-making
- Provide insights and recommendations to inform future TAM initiatives

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Peer Exchange Agenda	
8:30 AM–9:00 AM	Introductions Welcome, Opening Remarks, Participant Introductions • AASHTO • Federal Highway Administration (FHWA) • Participants
9:00 AM–9:45 AM	How to Effectively Use Graphics to Communicate Asset Information or (Elements of Good Visualizations or Elements of Good Graphic Communications)
9:45 AM–10:45 AM	Sharing Session: Effectively Communicating Asset Inventory and Condition Information
10:45 AM–11:15 AM	Break
11:15 AM–12:15 AM	Sharing Session: Communicating Asset Risks
12:15 AM–12:30 PM	Morning Wrap-Up
12:30 PM–1:30 PM	Lunch
1:30 PM–2:30 PM	Effectively Explaining Investment Trade-Offs
2:30 PM–4:00 PM	Good Communications Exercise (Small Groups)
4:00 PM–4:30 PM	Peer Exchange Wrap-Up

8:30 AM–4:30 PM

AISIM

Lake Ontario

The Annual Inter-University Symposium on Infrastructure Management (AISIM) is a student-led event focusing on advancements in infrastructure management. This year's symposium is organized by Syracuse University and coinciding with the Conference.

AISIM is a full-day symposium designed primarily for graduate students but also attracts researchers, industry professionals, and representatives from infrastructure agencies, consulting firms, development banks, and other key stakeholders. Each year, students from leading institutions participate in the symposium to present their research, discuss innovative ideas, and engage with experts in the field. AISIM not only fosters academic and professional networking at national and international levels but also provides students with opportunities to connect with industry leaders, strengthening their role as future infrastructure professionals.

5:30 PM–7:30 PM

Reception

Continental Rooms A&B

The evening reception is open to all attendees and their guests, and the conference exhibit hall will also be open during this time.

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TUESDAY, AUGUST 26

7:30 AM–5:00 PM
Registration
Continental Foyer

8:30 AM–10:00 AM
Opening Plenary Session/Keynote Speaker
Continental Room C
Moderator: Omar Smadi, Center for Transportation Research and Education Director

Welcome Remarks
Gia Biagi, Illinois Secretary of Transportation

Gia Biagi was appointed secretary of the Illinois Department of Transportation (DOT) by Governor JB Pritzker on December 10, 2024. Biagi brings to the agency decades of experience in urban planning, transportation, public policy, infrastructure and operations.

Biagi's career spans both private practice and public service and has established her as a visionary leader in planning, policy, and infrastructure management. From 2019 to 2023, she served as commissioner of Chicago's DOT, where she delivered hundreds of innovative transportation projects citywide and created a nation-leading strategic plan focused on equitable, safe, and sustainable mobility, along with transformational neighborhood investments.

She has held various other private and public roles across the fields of housing, parks, and transportation throughout her career of more than two decades.

Prior to her appointment to the Illinois DOT, she provided executive leadership at Studio Gang, an international, award-winning architecture and urban design firm. There, she led a practice that specialized in urban design, land-use planning, community engagement, and implementation strategy for public and private-sector clients across a range of cities and project types, including housing, waterfronts, aviation, parks, roadways, and public and private buildings and sites.

Biagi recently served on the Shared-Use Mobility Center's board of directors and was previously appointed secretary of the National Association of City Transportation Officials. She served on the Board of Trustees for the Chicago Architecture Center, is a member of the advisory board of the Women's Transportation Seminar, and is a member of Lambda Alpha International, an honorary society for the study of land economics. She was also recently named a visiting fellow at the Clinton School of Public Service at the University of Arkansas.

Biagi earned her Master of Urban Planning and Policy from the University of Illinois at Chicago (UIC) and holds a Bachelor of Arts from the University of Michigan.

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Welcome Remarks

Erin Aleman, Chicago Metropolitan Agency for Planning (CMAP) Executive Director

Erin Aleman is a planning and public policy expert, accomplished leader, and a positive change agent. She leads the award-winning CMAP—the regional planning agency for 7 counties, 284 municipalities, and 8.6 million residents in northeastern Illinois. She is the first woman to serve in this role and the first professional planner to lead the agency.

The CMAP team is comprised of transportation experts, data analysts, thought leaders, planners, policy influencers, collaborators, and consensus builders. CMAP has earned a revered reputation for advancing sound policy, driving innovative solutions, and leading transformational change.

From helping to create a first-of-its-kind regional economic partnership, developing solutions to transform the region's transit system, and building consensus among the region's leaders on the highest-priority transportation projects, Aleman and CMAP have left their mark on this region since Aleman became CMAP's executive director in July 2019. The region consistently relies on Aleman and her team to share their expertise and knowledge on national, regional, and local conference panels and media interviews.

Aleman's career journey has brought her full circle. Fresh out of graduate school in 2007, she joined CMAP as the agency's Phillip D. Peters Regional Planning fellow. Over the next eight years, she rose through the ranks to become principal planner in 2011 and played key roles in creating the highly successful Technical Assistance Program, leading regional outreach for GO TO 2040—the agency's first long-term comprehensive plan—and completing more than 20 local planning projects.

She also held leadership positions at the Illinois DOT, first as a bureau chief and then as director of the Office of Planning and Programming. During her Illinois DOT tenure, she provided strategic guidance, implemented performance-based tools, developed the state's first asset management plan, and was responsible for developing multimodal policy initiatives.

In 2019, Aleman was named as one of Crain's distinguished 40 under 40 designees and the Women in Transportation (WTS) Chicago Chapter's Woman of the Year in 2020. Aleman holds a Master's degree in Urban Planning and a Bachelor of Fine Arts in Printmaking. She holds advisory roles for UIC's Stuart Handler Real Estate program, the Southland Development Authority, and the Chicago Chapter of WTS. Erin also had the honor of being a strategist for the Obama Foundation Scholars Program in 2018. She has served on the Coalition for America's Gateways and Trade Corridors Board since 2019, was elected secretary in 2021, and currently serves as vice chair.

Aleman is a passionate planner and champion for collaboration with a love for serving people and making a difference.

Keynote Speaker

Katie Zimmerman, Applied Pavement Technology, Inc. (APTech) Executive Vice President

Katie Zimmerman has devoted her more than 40 years in the transportation industry to helping public and private agencies make effective decisions to manage their infrastructure assets. Instrumental in the deployment of pavement management concepts in the mid-1980s, as the field grew to encompass more and more transportation assets she continued to play a leading role in this growth. Today, Zimmerman is the Executive Vice President at APTech, a company she founded in 1994 and helped to grow into a leading provider of transportation consulting services with over 80 employees.

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Zimmerman has authored or contributed to most of the guide documents currently in use to shape the application of asset management principles, including both the Asset Management and Pavement Management Guides published by AASHTO. She served as chair of the Transportation Research Board Committee on Asset Management for 6 years and chaired the 11th National Conference on Transportation Asset Management in Minneapolis. She has attended, presented at, or helped organize every international conference on pavement and asset management since 1987. Over the years, she has valued the opportunities she has had as instructor, mentor, and collaborator to many asset management practitioners.

Zimmerman received both her Bachelor of Science and Master of Science degrees in Civil Engineering from the University of Illinois. She is a frequent speaker at technical conferences, where she shares her experience and expertise on a broad range of asset management topics, including lifecycle planning, the management of ancillary assets, and the effective use of pavement management systems.

As she approaches retirement, Zimmerman has enjoyed the opportunity to explore other avenues for applying her leadership and organizational skills, such as at the Don Moyer Boys and Girls Club in Champaign, Illinois. She also enjoys traveling and spending time with her son, granddaughter, sisters, and friends.

10:00 AM–7:00 PM
Exhibit Hall Open
Continental Rooms A&B

Concurrent Session 1
10:30 AM–12:00 PM

❶ Asset Management Practices (Including Case Studies)
Lake Michigan

Explore how transportation agencies can strengthen funding cases and optimize lifecycle planning. This session combines insights on business case development, advanced asset management strategies, and real-world applications from pavements to tunnels—equipping you with tools to improve performance and investment outcomes.

The Light at the End of the Tunnel: A Comprehensive Lifecycle Planning Approach for Tunnel Infrastructure
Chad Allen, HNTB
Trevor Pearce, American Roads

Effective Lifecycle Planning
Brad Allen, APTech

A Framework for Building a Business Case for Transportation Asset Maintenance Funding
Yazan Abukhalil, Institute for Transportation (InTrans) at Iowa State University
Omar Smadi, InTrans at Iowa State University

CONFERENCE PROGRAM

❻ Innovative Concepts in Asset Management

Lake Erie

This session explores cutting-edge approaches to infrastructure and asset management through three pioneering initiatives. Learn about a digital platform that enables strategic program trade-offs and budget distribution, Minnesota DOT's NiceConnect project, which is advancing data interoperability for smarter decision-making, and an integrated asset prioritization case study from West Sacramento that enhances pavement management systems (PMS). Discover how these innovations are transforming infrastructure planning and performance across agencies.

Program Trade-off and Budget Distribution Framework Developed in a Digital Platform

Trevor Campbell, Mott MacDonald

Alicia Howard, Delaware DOT

Advancing Infrastructure Management: MnDOT's NiceConnect Project for Data Interoperability and Innovation

Trisha Stefanski, Minnesota DOT

Shannon McGrath, WSB

Advancing Pavement Management Systems Through Integrated Asset Prioritization: A Case Study from West Sacramento, California

Tim Miller, Kimley-Horn

❼ Resilience and Asset Management

Lake Ontario

Improving resilience begins with considering change. To enhance the resilience of our nation's roadways, we have to be proactive in developing long term resilience across our nation's transportation infrastructure. This means developing a framework that evolves and considers change. This session will provide examples of how agencies are incorporating resilience into network planning by considering frequent and intense extreme weather events that significantly impacts transportation infrastructure.

Transport Infrastructure Ireland's Vulnerability Assessment Framework

Kieran Feighan, Pavement Management Services Ltd

Risk Management and Resilience: MnDOT

Shaker Rabban, Minnesota DOT

Quantitative Risk Analysis of Frequently Flooded Roadways

Stephanie Johnson, Delaware DOT

Trevor Campbell, Mott MacDonald

❶ Asset Management Practices (Including Case Studies)

Lake Huron

Invited Panel Session

Pavement Management Systems for Local Municipal Agencies, State of Current Conditions and Practices

Moderators:

- **Abbas Kachwalla**, AECOM
- **Bridget Malinowski**, AECOM

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Panelists:

- **Jose Rodriguez**, CMAP
- **Michael Wegrzyn**, Village of Richton Park, IL
- **Jonathan Stelle**, Village of Hanover Park, IL

In recent years, the concept of PMS has grown rapidly at a local municipal level nationwide. The use of a PMS is intended to provide municipal agencies with a systematic process for cost-effectively managing their pavement network, which may include roadways, parking lots, and alleys. This panel discusses current municipal PMS practices, existing conditions, repair budgets, and required funding to improve conditions, with a focus on a CMAP project that implemented PMS for 90+ municipal agencies from 2018 to 2025 located around the Chicagoland region. Having metropolitan agencies like CMAP bring PMS to the local agency level has several benefits, such as cost-effective implementation pricing, group discussion of best practices, and future agency collaborations.

Concurrent Session 2

1:30 PM–3:30 PM

❶ Asset Management Practices (Including Case Studies)

Lake Michigan

Explore how agencies are growing their asset management programs through benchmarking, change management, and stakeholder engagement—plus a look at how education is shaping the next generation of practitioners.

Where Are You in Your Asset Management Journey?

Gary Ruck, Deighton Associates Ltd

Asset Management Education for the Next Generation of Practitioners and Researchers: Lessons Learned from Bootcamp

Cristina Torres-Machi, University of Colorado Boulder

Sue McNeil, University of Delaware

Stakeholder Buy-in and Engagement: Asset Management Program Implementation Through Effective Change Management

Justin Barclay, Johnson, Mirmiran, and Thompson (JMT)

The Art of the Asset Management Plan: Lessons from Yesterday and Today

Matt Versdahl, Washington State DOT

❺ Innovative Concepts in Asset Management

Lake Erie

Discover how agencies are transforming asset management with digital delivery, artificial intelligence (AI)-driven insights, workforce tools like the Transportation Asset Management Plan (TAMP) Knowledge Book, and expert-based frameworks for electrified roadways. This session showcases global strategies for smarter, more sustainable infrastructure.

Enhancing Asset Management Lifecycle Through Digital Delivery

Robert Cooney, eVision Partners, Inc.

Kevin Green, eVision Partners, Inc.

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Developing TAMP Knowledge Book to Support Workforce Success

Virginia Stubella, New Mexico DOT

Leveraging AI and Machine Learning for RGA Asset Management in KSA

Zaid Alyami, Ministry of Transportation and Logistics Services

Management Framework for Electrified Roadways Integrating Economic, Environmental, and Risk Analyses Through an Expert-Based Approach

Francisco Contreras, University of Colorado Boulder

Cristina Torres-Machi, University of Colorado Boulder

Adeeba Raheem, University of Texas El Paso

Janette Goodridge, Utah State University

Amanda Katz, Utah State University

❺ Data Practices in Asset Management

Lake Ontario

This session will explore innovative solutions that leverage AI, lidar, connected vehicle data, and decision dashboards in highway and transit applications.

From Satellites to Streets: A Remote Sensing and AI Framework for Pavement Management

Rohan Singh Wilkho, Texas A&M University

Nasir Gharaibeh, Texas A&M University

Leveraging Decision Support Tools for Data-Driven Asset Management Dashboards

Marie Marasovich, Chicago Transit Authority

Transportation Asset Management Leveraging Mobile Lidar Systems

Michael Olsen, Oregon State University

Connected Vehicle Data Driving Better Outcomes in Road Safety and Asset Management

Rohit Ghosh, GHD Inc.

❷ Asset Management 101

Lake Huron

Moderators:

- **Gerardo Flintsch**, Virginia Tech University
- **Baris Salman**, Syracuse University

The Asset Management 101 session is intended for conference attendees who may be new to asset management and are looking for an introductory session that covers the basics to get started on the right foot in your asset management journey. The session will feature abbreviated course material from various sources to make the session easy to follow for beginners.

CONFERENCE PROGRAM

❻ Innovative Concepts in Asset Management

Continental Room C

Mini-Workshop

Geotechnical Asset Management: Improving the Foundations of Transportation Network

Moderator: Ahmad Alhasan, HNTB

Geotechnical Asset Management (GAM) has been gaining traction at the national level as an effective approach to manage geotechnical assets and support the transportation network to perform effectively. In this session, we will discuss the role of GAM within TAM practice and the potential role GAM plays in breaking silos and improving resilience. The workshop will discuss the elements of a GAM program and the best practices to implement a risk-based GAM program as an integral part of agencies' TAM and long-range planning. The discussion includes risk-based tiered data collection, which is used to estimate the return on investment (ROI) of data collection in GAM. Following the data collection and data management, we will discuss a quantitative risk management approach to evaluate the probabilistic performance of multiple geotechnical assets including cut slopes, earth retaining structures, and embankments.

Concurrent Session 3

4:00 PM–5:30 PM

❼ Resilience and Asset Management

Lake Michigan

Mini-Workshop

NCHRP 23-32 Transportation Asset Risk & Resilience – Development of a Standard Method of Assessment

Moderators:

- **Aimee Flannery**, Jacobs
- **Maria Pena**, GFT

The workshop will provide participants with an overview of the National Cooperative Highway Research Program (NCHRP) 23-32 Transportation Asset Risk & Resilience project, which aims to support transportation agencies in their quantitative assessment of asset risk and system resilience from a range of natural and direct threats, with an emphasis on providing hands-on exercises to share with the TAM community the types of quantitative models for risk assessment that are intended to be included in the final project deliverables. Example hands-on exercises include methods to assess erosion risk to roadway embankments and flood risk to highway bridges. The methods developed through NCHRP 23-32 build upon early quantitative risk models and move the methods beyond science-informed methods to those closely aligned with design parameters. The outcomes of the risk models provide the user with a monetary quantification of risk to both the owner and the traveler from relevant threats such as flooding.

CONFERENCE PROGRAM

❶ Asset Management Practices (Including Case Studies)

Continental Room C

Invited Panel Session

Case Studies in Asset Valuation

Moderator: Bill Robert, Spy Pond Partners

In its requirements for National Highway System (NHS) TAMPs, FHWA required that state DOTs include a calculation of the value of NHS pavement and bridge assets in their TAMPs, and that they calculate the cost of maintaining asset value. This session is a forum for presentations on the asset valuation pilots and/or other agency presentations detailing approaches to asset valuation.

❺ Data Practices in Asset Management

Lake Ontario

This session will feature practical examples of how agencies are using data in highway and rail asset management applications. Session speakers will discuss Michigan's experience implementing the AASHTO's TAM Data Guide, and leveraging data for pavement preservation and identifying track deflections.

Michigan DOT Experiences Using the AASHTO TAM Data Guide to Advance Agency Enterprise Asset Management

William Duke, Spy Pond Partners

Bradley M. Sharlow, Michigan DOT

From Data to Action: A Practical, Data-Driven Approach to Identifying Trackbed Defects

Eric Pradeep, WSP

Hybrid Data Processing Approach for Overcoming Data Challenges in AI-Powered Pavement Preservation: An Iowa DOT Case Study

Alireza Sassani, InTrans at Iowa State University

Sara Arezoumand, InTrans at Iowa State University

Omar Smadi, InTrans at Iowa State University

Ashley Buss, Iowa DOT

❻ Innovative Concepts in Asset Management

Lake Erie

This session highlights integrated strategies in asset management, including Ireland's approach to ATI, the unifying capabilities of the AIMS, and the role of public-private partnerships in upgrading and maintaining road networks.

Asset Information Management System (AIMS) – Bringing Everything Together

Allen Ibaugh, Cultivate Geospatial Solutions

Public Private Partnerships in Asset Management for Upgrading and Maintaining Existing Roads

Rimon Rafiah, Economikr

Asset Management of Active Travel Infrastructure (ATI): An Irish Case Study

Gerard O'Dea, Transport Infrastructure Ireland

Kieran Feighan, Pavement Management Services Ltd

CONFERENCE PROGRAM

❹ Communicating Asset Management Process and Results

Lake Huron

Mini-Workshop

Using Emerging and Asset Technologies for Asset Management

Moderator: Hala Nassereddine, University of Kentucky

This highly interactive workshop is aimed at exploring how emerging and established technologies can help state DOTs make more informed decisions in the management of transportation assets. As data-driven processes and technological advancements continue to evolve, state DOTs must manage an ever-growing volume and complexity of information. While these data present significant opportunities to enhance decision-making, DOTs face ongoing challenges related to data quality, integration, accessibility, and timeliness. The University of Kentucky team is leading NCHRP Project 23-41, which aims to develop a practical guidebook to support state DOTs in making informed decisions about implementing both emerging and established technologies for capturing and updating transportation asset data. To support the development of this guidebook, the team is seeking input from state DOTs and relevant stakeholders regarding their current technologies, asset management practices, needs, and pain points. This workshop will present the proposed structure of the guidebook for initial feedback and guide participants through a series of structured activities to share their experiences and challenges.

6:00 PM–10:00 PM

Gala

TAO Chicago

The gala will take place at TAO Chicago, 632 N. Dearborn Street. Buses will start departing the hotel at 6:00 PM and start returning to the hotel at 9:30 PM.

WEDNESDAY, AUGUST 27

7:00 AM–12:00 PM

Registration

Continental Foyer

Concurrent Session 4

8:00 AM–10:00 AM

❺ Innovative Concepts in Asset Management

Lake Erie

Invited Panel Session

Challenges and Wins in Data-Driven Transit Asset Maintenance

Moderator: Pedro Serigos, Cambridge Systematics

Panelists:

- **Kayla Sadallah**, New York Metropolitan Transportation Authority
- **Ister Morales**, GFT
- **Steve Stark**, Marine Tiger Technologies

CONFERENCE PROGRAM

Transit agencies are exploring innovative ways to improve the reliability and cost-effectiveness of their asset maintenance programs. Yet, the journey toward data-driven strategies can be complicated by organizational constraints, data quality issues, and the need for staff buy-in. This panel will bring together experts representing transit agencies to share experiences and lessons learned in implementing analytics-based maintenance. Speakers will discuss diverse asset classes (e.g., subway infrastructure, bus fleets), highlight both their challenges and successful initiatives, and showcase outcomes. Audience participation is encouraged through interactive polls (e.g., Mentimeter) to gauge attendees' perspectives and gather instant feedback.

❹ Communicating Asset Management Process and Results

Lake Michigan

Mini-Workshop

Post-Implementation Evaluations for Asset Management: A Hands-on Workshop for Measuring and Communicating Project Outcomes

Moderators:

- **Kevin Ford**, High Street Consulting Group
- **Yousef Dana**, High Street Consulting Group

How can transportation agencies better measure the long-term impacts of their investments and use that information to improve decision-making? Post-implementation evaluations (PIEs) provide a structured way to assess whether projects meet their intended goals—yet, most agencies conduct evaluations only on an ad hoc basis. Data limitations, inconsistent methodologies, and a lack of dedicated processes make it challenging to institutionalize post-implementation evaluations within asset management programs. This interactive workshop, based on findings from NCHRP Project 08-170, will provide transportation professionals with a hands-on introduction to practical frameworks, tools, and data strategies for conducting PIEs. Designed for agencies at all levels of evaluation readiness, this session will guide participants through key steps for integrating PIEs into asset management decision-making while ensuring transparency and accountability in communicating results.

❺ Risk and Asset Management

Lake Ontario

This session will explore how identifying risk in different stages of asset management can improve project development and minimize disruptions from extreme weather events and promote infrastructure sustainability.

Risk Management Framework for Use at DelDOT

Charles Pilson, Mott MacDonald

Maureen Kelley, Delaware DOT

Applications of Geotechnical Resilience-Based Design and Assessment in Bridges Design and Management

Ahmad Alhasan, HNTB

Corridor Risk Tool at the Minnesota Department of Transportation

Douglas Maki, Minnesota DOT

CONFERENCE PROGRAM

❻ Innovative Concepts in Asset Management

Lake Huron

Mini-Workshop

Uniting Safety and Pavements for Pavement Friction-Informed Asset Management: International/US Success Stories

Moderator: Ryland Potter, WDM-USA

This mini-workshop will share success stories on pavement friction-informed asset management from an international perspective (remotely) and a state and national perspective by engaging a mostly in-person panel session.

❸ Ask the Asset Management Doctors

Continental Room C

Panel Discussion

This fun and innovative session will be conducted similar to a town hall meeting with the audience posing asset management related questions to a panel of practicing asset management "doctors." The session moderator will draw upon topics identified throughout the earlier conference sessions and audience questions posed to the "doctors" during the session. The doctors will provide their opinions to treat the symptoms posed or write a referral to a specialist.

Panelists:

- **Mike Johnson**, California DOT
- **Michele Fedorowicz**, SEMCOG
- **Justin Bruner**, Pennsylvania DOT
- **Shaker Rabban**, Minnesota DOT
- **William Johnson**, Colorado DOT

Concurrent Session 5

10:30 AM–12:00 PM

❶ Asset Management Practices (Including Case Studies)

Lake Michigan

Explore how transportation agencies are using AI, geographic information system (GIS), and risk-based frameworks to enhance asset management. From roadside vegetation tracking to integrated performance and risk planning, this session highlights innovative tools and strategies driving more efficient, data-informed decisions.

Tools and Technology for Roadside Vegetation Asset Management

Angela Burdell, Davey Resource Group

Cheryl Daniels, Davey Resource Group

Optimizing Roadway Safety & Performance with AI and GIS: Lessons from Richland County, OH

Jason Trotter, Transconomy, LLC

Jonathan Groeger, Transconomy, LLC

The Enhanced Role of Risk Registers in Developing a Framework for Integrating Performance, Risk, and Process Management in Transportation Agencies

Inya Nlenanya, InTrans at Iowa State University

❶ Asset Management Practices (Including Case Studies)

Lake Ontario

Invited Panel Session

A Conversation with the Asset Management Expert Task Group

Moderator: Brad Allen, APTech

Panelists:

- **Tashia Clemons**, FHWA
- **Virginia Stubella**, New Mexico DOT
- **Ed Bock**, Connecticut DOT
- **Mike Johnson**, California DOT
- **Andrew Williams**, City of Columbus
- **Jeff Neal**, North Central Texas Council of Governments
- **William Johnson**, Colorado DOT
- **Michelle Fedorowicz**, Southeast Michigan Council of Governments
- **Laura Zale**, Southeast Pennsylvania Public Transportation Authority
- **Justin Bruner**, Pennsylvania DOT
- **Laura Mester**, Michigan DOT

The Asset Management Expert Task Group (AM ETG) was formed over 12 years ago to support the FHWA in its efforts to advance asset management practices. Since that time, the AM ETG has provided guidance to the FHWA and other agencies through the development of strategic plans, case studies, and white papers, as well as participating in regional and national asset management meetings and conferences. Moving forward, the AM ETG envisions more direct interaction with state, regional, and local transportation agencies to promote and advance the implementation of asset management practices. This session will highlight a recent meeting between the AM ETG and New Mexico DOT, which is expected to serve as a model for the future.

❻ Innovative Concepts in Asset Management

Lake Erie

Invited Panel Session

AI Applications in AM: An International Perspective

Moderator: Magid Elabyad, IRF

Panelists:

- **Michael Robson**, Fugro Roadware
- **Glen Hutchinson**, Vaisala Xweather
- **Norie Ogata**, NEXCO-West USA, Inc.
- **Curtis Berthelot**, PSI Group of Companies

This panel session will feature three international perspectives on AI applications in asset management as follows:

- Smarter Roads, Better Decisions – Leveraging Machine Learning in Asset Management Projects
- RoadAI – Advancing Road Asset Condition Assessment with Artificial Intelligence
- Investigation of AI Techniques to Enhance Mechanistic Structural Performance Prediction of Pavements

CONFERENCE PROGRAM

❻ Innovative Concepts in Asset Management

Lake Huron

Mini-Workshop

Incorporation of Structural Response into Asset Management

Moderator: Jerry Daleiden, ARRB Systems

Panelists:

- **Senthil Thyagarajan**, Texas DOT
- **Rick Miller**, Kansas DOT
- **Jim Poorbaugh**, Mississippi DOT
- **John Senger**, Illinois DOT
- **Aaron Collins**, Kentucky Transportation Cabinet
- **Gerardo Flintsch**, Virginia Tech University

Agencies have historically relied on surface characteristics to drive their pavement decision-making process. While these metrics are important and merit attention, they are lagging indicators. Pavements are designed to provide structural support, so efficient methods of documenting the current and future structural condition (a leading indicator) are needed. In the past few years, more than half of the state DOTs have started exploring the use of traffic speed deflection devices as part of their pavement decision-making process. This panel discussion will provide a forum for sharing information and ideas from state DOT experiences and applications. Ideas and recommendations from this session are intended to help all participants with the implementation of structural response in their decision support systems and identify needs for facilitating the implementation process.

Concurrent Session 6

1:30 PM–3:30 PM

❾ Tactical Practices in Asset Management

Lake Michigan

This session showcases cutting-edge tools and techniques for infrastructure assessment and monitoring. Topics include rapid condition assessment using high-definition visual, infrared, and ground penetrating radar (GPR) technologies; Michigan DOT's data-driven system for forecasting ancillary structure conditions; the System for Inspection and Management of Structural Assets (SIMSA) unified approach to multi-asset monitoring; and unmanned aerial vehicle (UAV)-mounted lidar for evaluating surface roughness via IRI computation.

Implementing Strategic Scanning Technologies for Pavement and Bridge Distress Quantification

Kyle Ruske, NEXCO-West USA, Inc.

A Data-Driven Approach to Ancillary Structures Management: MDOT Ancillary Structures Condition Forecasting System (ASCFS)

Michelle O'Neill, Michigan DOT

Bradley Sharlow, Michigan DOT

Nazik Citir-Razavi, HNTB

Kevin McKeehan, HNTB

CONFERENCE PROGRAM

SIMSA: A Unified Tactical Approach to Multi-Asset Inventory and Condition Monitoring

Brann Greager, HDR

Jessica Terry, Colorado DOT

Chris Senesi, HDR

Evaluation of UAV-Mounted Lidar Systems for Surface Roughness Characterization by Computing the International Roughness Index (IRI)

Zia Zihan, InTrans at Iowa State University

Omar Smadi, InTrans at Iowa State University

❹ Communicating Asset Management Process and Results

Lake Erie

Explore how agencies are fostering innovation and collaboration through strategic asset management planning (SAMP), effective change management practices, and clear communication of TAM principles across departments. This session offers practical insights into building alignment and driving continuous improvement.

Developing a SAMP to Drive Improvement, Innovation, and Collaboration Across MDOT

David Sklar, WSP USA Inc.

Bridges and Budgets: The Real Cost of Deferred Road Maintenance

Corryn Hall, The Pew Charitable Trusts

David Draine, The Pew Charitable Trusts

Communicating and Managing Change: A Recent Experience and Practices

Rob Mosbey, City of Fort Collins

Keyur Shah, HDR

Communicating TAM Throughout the Agency

Michael Weakley, Ohio DOT

❶ Asset Management Practices (Including Case Studies)

Lake Ontario

This session explores how transportation agencies are building effective asset management structures across highways, transit, and ports. Learn from DOTs and port owners as they share strategies for integrating asset management into their organizations to improve performance, resilience, and sustainability.

Creation of the Asset Management Organization at DelDOT

Jamie Kavelak, Delaware DOT

Deirdre Wallace, Delaware DOT

Integrating Highway and Transit Asset Management at the Connecticut Department of Transportation

Sharon Okoye, Connecticut DOT

Stephanie Shippee, Connecticut DOT

CONFERENCE PROGRAM

How to Meet MUTCD Mandatory Retroreflectivity Compliance: Methods to Assess and Map Pavement Marking Retroreflectivity Condition

Joe Turley, RetroTek USA Inc.

Streamlining Work Planning for Maintenance Workforces

John Puente, Cultivate Geospatial Solutions

4:00 PM–5:30 PM
Closing Plenary Session
Continental Room C

The closing session will include a reprise of the Oxford-style debate. The debate will feature two teams who will address a topic statement. One will take the "in favor" side of the resolution, and the other will take the "opposed" side. The two sides will present their arguments to the audience, who will vote on the resolution.

Participants:

- Master of Ceremonies – Michael Johnson, California DOT
- Debate Moderator – Matt Haubrich, HDR
- Closing Speaker – Omar Smadi, InTrans at Iowa State University

THURSDAY, AUGUST 27

8:00 AM–12:00 PM
Optional Workshops

Resilience in Asset Management Plans: A Lifecycle Approach to Weathering the Unpredictable

Prashant Ram, APTech

Amir Golalipour, FHWA

Lake Erie

This interactive workshop will provide highway agencies with practical approaches and strategies to embed resilience into their asset management plans (AMPs). The workshop will begin with two expert presentations: one on the impacts of extreme weather events on transportation infrastructure and adaptation strategies for enhancing resilience, and another on strategies for incorporating resilience considerations into AMPs. These presentations will set the stage for a hands-on exercise where participants will assess and address real-world asset vulnerabilities under specific disruption scenarios. Examples of these scenarios may include landslides triggered by heavy rainfall blocking critical highway corridors or urban flooding leading to major highway closures and severe traffic disruptions.

CONFERENCE PROGRAM

Asset Management and Digital Delivery

Michael Cremin, Minnesota DOT

Trisha Stefanski, Minnesota DOT

Simon Lewis, AECOM

Reed Brockman, AECOM

Lake Ontario

This workshop is designed to provide participants with comprehensive understanding of the current state of digital delivery and progress toward integrating with asset management. First, we will explain essential terminology to establish a foundational knowledge base for all attendees. We will also explore funding mechanisms and opportunities that enable agencies to invest in future advancements, helping bridge financial gaps in the adoption process. Through a series of case studies and shared experiences, we will dive into the diverse perspectives and journeys of agencies implementing digital advancements across the asset lifecycle. This will provide valuable insights into real-world challenges, strategies, and successes. Finally, the session will include a collaborative discussion on current gaps and critical research needs within the industry. Participants will have the opportunity to identify barriers to widespread implementation to propose ideas for driving innovation. This interactive workshop is ideal for professionals seeking actionable strategies to propel digital transformation in the transportation industry.

Building a Road Map for Adding the Value of GPR into Asset Management

Mike Heitzman, KONTUR US

Lake Michigan

GPR is a growing subsurface condition measurement tool. KONTUR works with practitioners (DOTs and consultants) and researchers to improve the use of GPR for pavements and bridges. KONTUR's system (step frequency antenna array and software) is the industry leader for the collection and analysis of GPR measurements and reporting of data derived from GPR response. This mini-workshop will bring together GPR users and asset managers to develop a roadmap for addressing the requirements to add GPR-derived data into an asset condition database. Is GPR ready to be an asset condition tool now? No, but a roadmap will identify what the GPR community needs to address. For example, a critical need is the ability to automate GPR response analysis so that thousands of lane-miles of pavement can be processed in a timely manner. The mini-workshop will also improve the asset managers' knowledge by presenting software developments and ongoing research.
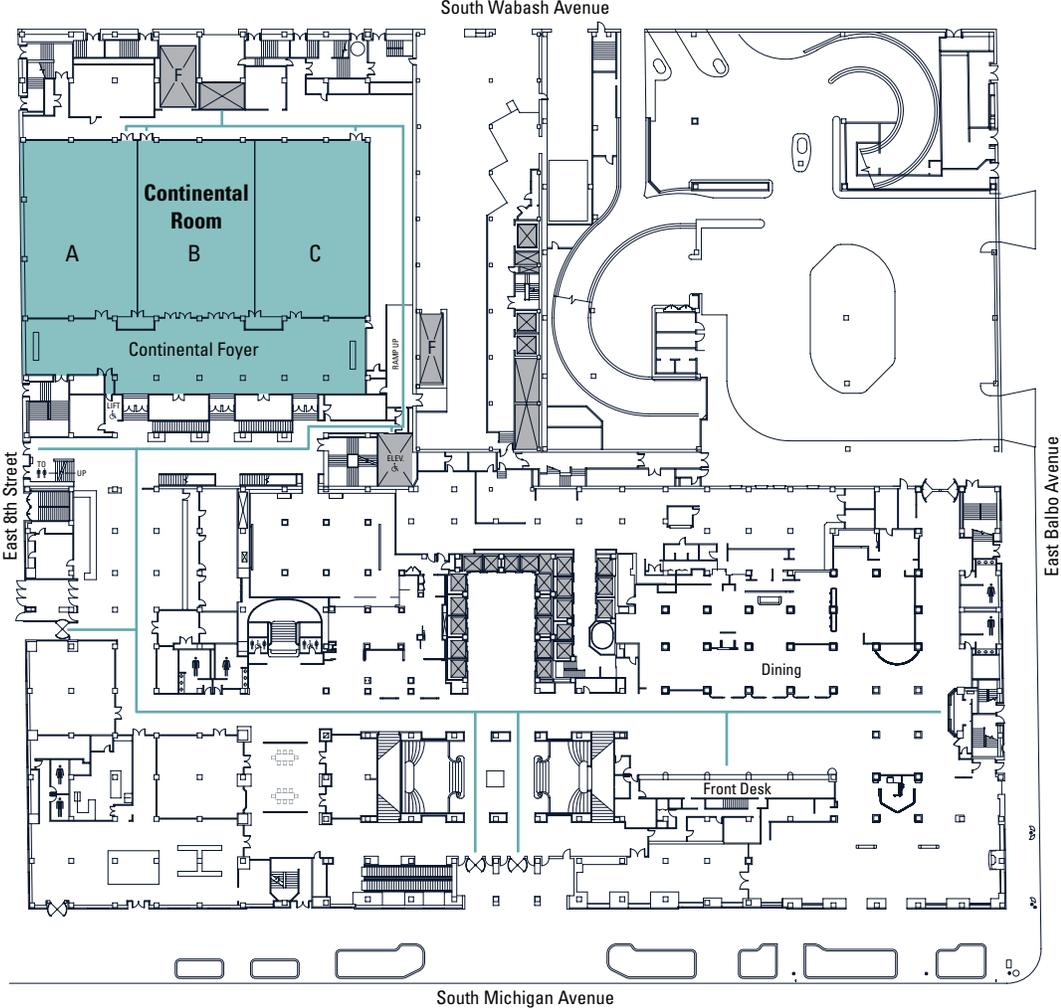
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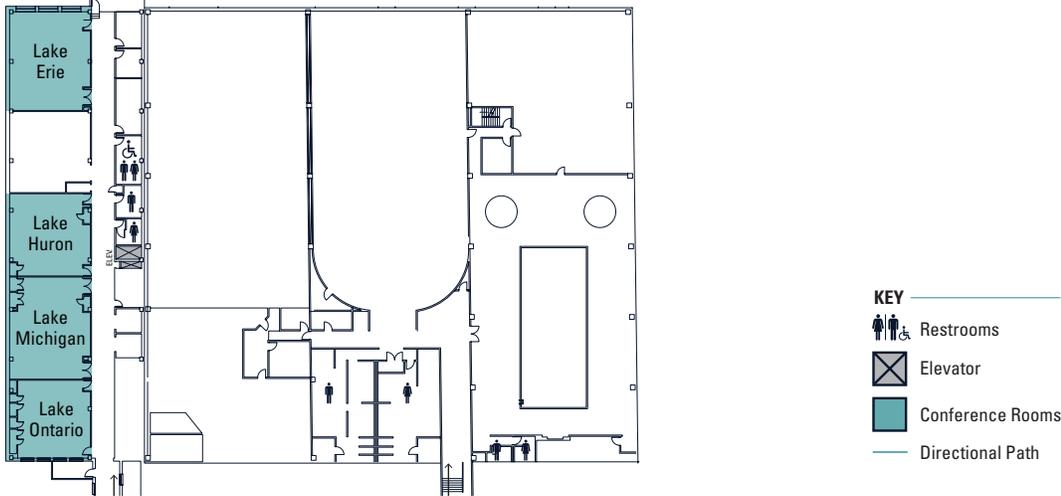## Pooled Fund Meeting (By Invitation Only)

Lake Huron

FLOOR PLAN

The conference will convene in Continental rooms A, B, and C on the lobby level as well as the four Lake meeting rooms on the 8th floor.

LOBBY LEVEL

South Wabash Avenue

F

Continental Room

A　　　B　　　C

Continental Foyer

RAMP UP

F

LIFT

ELEV.

TO

UP

East 8th Street

East Balbo Avenue

Dining

Front Desk

South Michigan Avenue

8TH FLOOR

Lake Erie

Lake Huron

Lake Michigan

Lake Ontario

ELEV.

KEY

Restrooms

Elevator

Conference Rooms

Directional Path

NOTES

NOTES

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The 15th National Conference on Transportation Asset Management will cover a broad range of asset management topics to help transportation agencies manage their infrastructure assets to meet needs today and in the future.