

MDOT/ACEC PARTNERING WORKSHOP BREAKOUTS (DRAFT)

Updates on MDOT's Local Agency Program (LAP)

The MDOT Local Agency Program has seen many changes over the last couple of years. Come hear what's new and what's coming up. Also, bring your questions because MDOT wants to know what challenges you have! Topics of special interest include NEPA Documentation common issues, Warranties on federal aid projects, Design Exception tips, EGLE Lead/Copper Rule, Conflict of Interest, Non-Value Added Costs, Construction Oversight, and more.

Presenters: Tracie Leix (MDOT), Mark Loch (OHM Advisors)

Real Estate Updates

Learn how to acquire right of way on your project without jeopardizing funding. Mutual benefits has been used in the past when acquiring temporary consents from a property owner on federal-aid projects. The session will discuss the elimination of mutual benefits, Uniform Act requirements and potential impacts to project timelines and costs. *Presenter: Teresa Vanis (MDOT)*

Transportation Systems Management & Operations (TSMO) – The Latest

This session will begin with a brief overview of MDOT's latest reorganization to support TSMO. Safety First, Safety Always – Learn what MDOT is pursuing on the state trunkline system in support of the Strategic Highway Safety Plan (SHSP) to address fatalities and serious injuries. Toward Zero Deaths (TZD) is more than just MDOT. It involves all in a change of culture to focus our combined efforts. Remember crashes are no accidents. The session will also include an update on operations funding and guidance including the status of the freeway and non-freeway operations programs. The new guidance document will be discussed and benefit-to-cost method for submitting projects for these programs. *Presenters: Mark Bott, Jason Firman, John Engle (MDOT), Jeff Bagdade (Atkins)*

Intelligent Transportation Systems (ITS)

This session will showcase the latest in ITS including the recently relocated and updated Statewide Transportation Operations Center (STOC), Central Signal Control Software, Systems Engineering (SE) process and an update on the North American International Auto Show (NAIAS) 2020 Michigan Mobility Challenge. *Presenters: Collin Castle, Elise Feldpausch (MDOT)*

Paving in Michigan

Paving specialists will focus on HMA and concrete paving practices in the field, good contractor techniques, things to watch for, compliance requirements, and lessons learned from paving across the state. *Presenters: Marc Beyer (MDOT), Joe Tejkl (Fishbeck)*

Everything Work Zone

Work Zone experts will provide updates on the work zone technology opportunities, Manual for Assessing Safety Hardware (MASH) guidance, work zone training, and other current happenings

in the world of work zone administration. *Presenters: Chris Brookes, Chuck Bergmann (MDOT), Brian Sarkella (ROWE PSC), Brian Morley (Great Lakes Engineering)*

Work Zone Safety Task Force

The focus of the new task force will be provided and discussion will include task force teams, activities, and actions. *Presenters: Lindsey Renner (MDOT), Brian Morley (Great Lakes Engineering Group), Mike DeFinis (Iafrate Construction)*

Administering Contracts in a Changing Environment

Discussion will focus on force accounts, project closeout/overdue finals process changes, Final project review process changes, adding consultant engineers to the MDOT Certified Engineer program and other changes in construction and contract administration. Major improvements are coming to streamline the Final Project Review process. *Presenters: Jason Clark, Mike DeBoer (MDOT), John Stevenson (WSP)*

Modernize I-75: Case Study in P3 Delivery

Segment 3 of the I-75 Modernization Project is the largest single construction contract in MDOT's history and one of the most significant Public-Private Partnerships undertaken in the state. This project is reconstructing 5.5 miles of I-75 between 8 Mile Road (M-102) and 13 Mile Road in Oakland County and will construct the state's first freeway HOV lane. Learn how this Design-Build-Finance-Maintain (DBFM) delivery approach is working from the perspectives of each of the key partners in this collaboration. *Moderator: Colin Forbes (MDOT) Presenters: Mark Dubay (MDOT), Matt Oumedian (WSP), Sean Kelsch (AECOM), David Nachman (Oakland Corridor Partners)*

Long-Range Planning

MDOT is undertaking long-range planning at a time of great change in the industry, from an ever-shifting revenue picture to the impact of connected and automated vehicles on our transportation system. Hear how the department is charting a course to a successful future while managing this uncertainty. *Presenters: Brad Sharlow (MDOT), Todd Davis (WSP)*

Project Planning/NEPA

Environmental planning is an essential element of advancing MDOT's program. Hear how the Planning and Environmental Linkages (PEL) process is being used to integrate project planning with NEPA elements, including most recently for the study of US-12 (Michigan Avenue). In addition, learn about the challenges of the Supplemental EIS process needed to continue to advance one of MDOT's longest-running projects, the I-94 Modernization program in Detroit. *Presenters: Margaret Barondess, Jon Loree (MDOT), Dan Beard (WSP), John Baldauf (HNTB)*

Transit and Mobility

Michigan continues to enhance options for transit in communities large and small throughout the state, while the landscape of transportation options rapidly evolve. New modes such as e-scooters and ride-hailing have quickly taken hold, while we anticipate even further change with

the advent of vehicle automation. Learn how MDOT is strengthening and growing transportation options through planning efforts and transformative projects. *Presenters: Jon Loree, Jean Ruestman (MDOT), Scott Shogan (WSP)*

The Listening Laboratory: Active Listening Workshop for Public-Private Partnerships

Learn some of the same techniques and habits used by hostage negotiators to save lives. Apply them to your own unique communications and leadership opportunities as a design professional or public servant! *Presenter: Dan Oblinger (Leadercraft)*

DDWG Status and Panel

The Michigan Department of Transportation in partnership with ACEC and Michigan Infrastructure and Transportation Association (MITA) have formed the Digital Delivery Work Group (DDWG). This status update and panel discussion will feature a cross section of members of the committee sharing lessons learned, impacts and challenges associated with the Project PDF, 3D Line Strings, KMZ files and moving the state to contractual digital data as well as a status update on Model Level of Development. *Moderators: John Wilkerson (MDOT), Cathy Cassar (Michael Baker), Panelists: Luke Arnold (MDOT), Contractors and ACEC Consultants TBD*

Design Services – What’s New?

There are many changes coming in this area. Staff from Engineering Support and ProjectWise will discuss a variety of subjects including: ORD Upgrade plan and timeline, anticipated Sample Plan Updates/Scenarios, ProjectWise Spinning Wheel and Service Restart Status and new ProjectWise Web version. *Presenters: Luke Arnold, Karl Berg, Karl Brandys, Greg Vanis (MDOT)*

Contracts & Finance

This session focuses on changes to the MDOT vendor/consultant contracting processes as well as new initiatives. Topics for discussion include: Mentor-Protégé Program updates/information; changes to selection tier limits; changes to the fixed fee paid to consultants on as-needed contracts; as-needed selection time period modifications; contracting timelines; emergency consultant contracting; proposed changes to proposal and prequalification package submittal procedures; and changes to prequalification classification requirements. *Presenters: Keith Simons, Lisa Thompson, Nick Sundberg (MDOT), Matt Wendling (WSP)*

Ancillary Structures Focus

While bridges may be what first comes to mind when thinking of a structure in a transportation network, there are, in actuality, a plethora of other structure types, typically called ancillary structures. The inventory of ancillary structures is in the thousands of structures on the MDOT system and represents a significant investment of taxpayer dollars valued at over \$6 billion. Ensuring these structures are in a state of good repair is critical to public safety and welfare. A potential failure could have immediate, severe, and even catastrophic impacts to life safety of the public. MDOT will be expanding our current ancillary structure inspection program and implementing a robust cradle to grave asset management program to properly manage these assets. *Presenters: Rebecca Curtis, Pete Jansson, Eric Burns (MDOT), Tiffany Vorhies (SME)*

All Things Bridge

This breakout will include innovations and policy updates in the areas of bridge design, construction and preservation. 2020 Standard Specifications for Construction, MDOT's newly formed bridge construction support unit, and highlights from a few bridge construction projects will be presented as well as a discussion about the findings of the FIU pedestrian bridge collapse. *Presenters: Brad Wagner, John Belcher (MDOT), Tom Sereseroz (RS Engineering)*

National BIM for Bridges Update / I-94 Bridges BIM Case Study

MDOT continues to promote technology and leverage industry innovations on the BIM pilot project for two bridges in the I-94 Modernization Program. MDOT's pilot project is a national trend setter pushing the boundaries of currently available bridge design software and exploring project data to reliably provide design-to-construction and design-to-fabrication details beyond traditional project sheets. An update will also be provided on national examples of BIM delivery only and the AASHTO pooled fund study for national development standards for BIM bridge design. *Presenters: Talia Belill, Brad Wagner (MDOT), Colby Christensen (HDR)*

Improve your design of Temporary Earth Retention Systems (TERS) & bring your A-GaME to Subsurface Exploration

MDOT has a new manual for design of cofferdams, sheet pile walls, and soldier pile walls. The TERS manual was developed to clarify design requirements for and improve the state of practice in the design community. An overview of this new manual will be presented as well as an introduction to MDOT's plan for training and prequalifying designers of TERS. MDOT's implementation of Cone Penetration Testing (CPT) will also be discussed. CPT can improve site characterization and reduce risks associated with changed site conditions. CPT is included in a suite of exploration technologies cleverly marketed by FHWA under the umbrella of **Advanced Geotechnical Methods in Exploration "A-GaME"**. *Presenters: Dick Endres, Ryan Snook, (MDOT), Mark Stapleton (G2 Consulting Group), Dr. Stan Vitton (MTU).*

MDOT Innovative Contracting Program: Complexity in Control

Development and delivery of MDOT's most complex projects is the responsibility of the Innovative Contracting Unit (ICU). Ryan Mitchell, manager of the unit, and ICU staff will provide an overview of MDOT's Innovative Contracting program, including how projects are identified, screened, developed, procured and implemented; a look at the alternative project delivery models in use at MDOT; a presentation of some of MDOT's most interesting recent, ongoing and forthcoming alternative delivery projects; and a look at the programmatic improvements ICU is initiating at MDOT to drive continued excellence and process improvement. *Presenter: Ryan Mitchell, James Ranger (MDOT), Jeff Chenault (WSP)*

Performance Based Practical Design (PBPD)

You'll be updated on the latest vision and more importantly the department's plan for implementing PBPD. Learn the results of the recent technical agenda and how PBPD will be

integrated into project development in our emphasis on safety and reliability. *Presenters: Mark Bott, Mark Shulick (MDOT), Steve Gravlin (Michael Baker)*

Special Provisions

This session will highlight how to properly format special provisions. Other topics will include: a list of common mistakes; where to find guidance/instructions on formatting special provisions; and additional resources available to assist in the development of special provisions while ensuring MDOT guidelines are followed. There will also be an opportunity for Q&A directly following the presentation. *Presenter: Dave Pawelec, Julie Townsend (MDOT)*

ROUNDTABLES

Bridges & Structures

This roundtable will be an open discussion on bridge topics such as structure design, asset management, inspection, structural fabrication and construction. MDOT Bureau of Bridges and Structures initiatives will also be discussed.

PANEL

Pete Jansson (MDOT) Co-Moderator

Brad Wagner (MDOT) Co-Moderator

Keith Cooper (MDOT)

Beckie Curtis (MDOT)

Doug Parmerlee (AECOM)

Victor Judnic (HNTB)

Thomas Sereseroz (RS Engineering)

Everything Design

This session will be an open discussion on topics presented and other design issues, including rail issues – flagging costs and review time, EGLE’s (Department of Environmental, Great Lakes, Energy) lead and copper rule impacts and the 2020 Standard Specifications for Construction timeframe and high-level discussion of changes.

PANEL

Kristin Schuster (MDOT) Co-Moderator

Charlie Stein (AECOM) Co-Moderator

Rob Lippert (MDOT)

John Wilkerson (MDOT)

Mark Shulick (MDOT)

Ryan Mitchell (MDOT)

Dave Pawelec (MDOT)

Everything Construction

This roundtable will be an open discussion including paving, work zone safety and mobility, contract administration, and the 2020 Standard Specifications for Construction timeframe and outreach.

PANEL

Jason Gutting (MDOT) Co-Moderator

Tia Klein (Fishbeck) Co-Moderator

Chuck Bergmann (MDOT)

Marc Beyer (MDOT)

Chris Brookes (MDOT)

Jason Clark (MDOT)

Mike DeBoer (MDOT)

Lindsey Renner (MDOT)

Brian Morley (GLEG)

Brian Sarkella (ROWE PSC)

John Stevenson (WSP)

Joe Tejkl (Fishbeck)

Innovative Technology Room

A short presentation from each of the Innovative Technology vendors with time allotted for open discussion.

Co-Moderators: Tom Weston (HNTB), Matt Wendling (WSP)

Innovative Technology Presentations:

- MDOT will be presenting two Technologies: Open Roads Designer Connect Edition (ORD) which is the next generation of Bentley CADD software that integrates multiple disciplines in one platform providing capabilities and streamlined modeling in our Road Design process. MDOT will share experiences from their initial pilot using ORD and is also looking to advance to Project PDF. The Project PDF is a step toward digital delivery that removes sheet cutting for project wide plan, profile and quantities like pavement, removal, curb, etc. MDOT has noticed savings for plans production up to 30% on the pilots. It is a first step that maintains an environment that is familiar to everyone while displaying information in a digital form. Presenter: Douglas Scott (MDOT)
- Michael Baker has paired Rope Access with Unmanned Aerial Systems (UAS) to efficiently gather accurate data for holistic asset management. Whether a bridge inspection, network-wide system evaluation, or load rating projects, these technologies provide new opportunities for engineers ultimately saving owners, agencies, and the public considerable time and money. Presenters: Alicia McConnel, John Zuleger (Michael Baker)
- Spicer Group will present its web-based LiDAR and Imagery viewing solution used for all MDOT owned rail in Lower Michigan. This web-based interactive 3D viewer allows the user to visualize and measure in LiDAR and imagery data. In addition, data from any source can be viewed, including traditional airborne or UAV LiDAR data, UAV imagery, mobile LiDAR imagery, static laser scanning data, or even ortho photos and GIS vector

data. It is a single viewing interface for all project or enterprise data, accessible on any web browser on any device. Presenters: Eric Barden, Jeremy Dancer (Spicer Group)

- Surveying Solutions, Inc.'s (SSI) presentation will focus on the various ways surveying has transitioned into the virtual world. As the industry shifts towards digital data solutions, so are the methods how survey data is collected, managed, and most specifically delivered. This demonstration will highlight the many advantages in which innovative survey deliverables are helping concentrate efforts on efficiency and increasing overall productivity. From streaming LiDAR and aerial imagery viewers to real-time 3D connectivity collection and mobile app integration, these new data platforms and tools are allowing users to immerse themselves into a virtual project environment. Presenter: Jeff Bartlett (SSI)
- HNTB will present Bentley's 3D Design Review (QC) software which enables designers to perform quality control reviews of 3D roadway models in a collaborative review environment at various stages of design maturity. This software is geared towards assisting designers to improve the accuracy and quality of 3D models that are becoming increasingly relied upon during construction. Presenter: Evan Forgac (HNTB)