

27th meeting of the
IOWA FREIGHT ADVISORY COUNCIL

September 6, 2019
 10:00 AM to 2:00 PM
 Courtyard Marriot
 2405 SE Creekview Dr, Ankeny, IA 50021

Members

x	Jillian Walsh for Andy Cernin	x	Bob Rafferty for Delia Moon-Meier
x	Tom Determann	x	James Niffenegger
x	Greg Dickinson	x	Kelli O'Brien
x	Don Egli	x	Joe Parsons
	Greg Jenkins	x	Scott Bannister for Dan Sabin
x	Calean Kokjohn	x	Mike Steenhoek
x	Ron Lang	x	Mark White for Reilly Vaughan
x	Brent McKenzie	x	Ron White
x	Don McDowell	x	Tim Woods

Ex-Officio Members

	Todd Ashby		Mike Norris
	Mike Hadley		Paul Ovrom
	Mark Johnson		Robert Palmer
x	Michael Kober	x	Joseph Rude
x	Sean Litteral	x	Andy Barnes for Col. Steven Sattinger
x	Mark Lowe		Louis Vander Streek
x	Shirley McGuire	x	Jennifer Wright

Iowa DOT

	Stu Anderson	x	Justin Meade
x	Phou Baccam	x	Phil Meraz
	Mikel Derby	x	Tammy Nicholson
x	Sam Hiscocks	x	Garrett Pedersen
x	Laura Hutzell		Charlie Purcell
x	Alex Jansen		Angel Robinson
x	Renee Jerman		John Selmer
x	David Lorenzen		Melissa Spiegel
x	Craig Markley	x	Jeff von Brown
	Scott Marler		Andrea Henry
x	Amanda Martin		Susan Fenton

Guests

x	Tara Cullison (Bi-State Regional Commission)	x	Beau Wittowski (Iowa DOT)
x	Brian Keierleber (Buchanan County)	x	David Claman (Iowa DOT)
x	Mark Nahra (Woodbury County)		

Meeting input objectives

1. Identification of factors that should be considered when systematically evaluating the criticality of infrastructure and the relative importance of such factors.
2. Identification of innovative mechanisms, approaches, and techniques to replacing and repairing local infrastructure that could be promoted and utilized throughout the state.

10:00 AM Safety Briefing

Amanda Martin
Iowa DOT

Welcome and Introductions

Ice-breaker: What is a technological innovation in transportation that we need to understand more thoroughly?

Mike Steenhoek, Chair
Soy Transportation
Coalition

FMCSA Hours of Service Proposal

Brief discussion on new Hours of Service proposals released in August 2019.

Chief David Lorenzen
Iowa DOT

Amanda Martin opened the meeting with a quick safety briefing. Mike Steenhoek, the FAC Chair, discussed the topics to be covered and kicked off the meeting with an icebreaker. The question “What is a technological innovation in transportation that we need to understand more thoroughly?” was posed to the group. Meeting attendees responded as they introduced themselves.

Responses included:

- Emerging technologies should be embraced, even if the window within which they were expected to have been adopted has passed.
- There is a need to adopt innovative methods to construct and maintain infrastructure.
- Automated vehicles and otherwise would certainly be embraced in rural regions within the state. This is necessitated by agricultural adoption, aging farmers and depopulation.
- The quality of gravel roads, the “headstreams” of freight flow within the state.
- The growing pains encountered with the adoption of Positive Train Control (PTC) on rail networks.
- That new safety mandates such as PTC, and Electronic Logging Devices (ELD) could ultimately lead to greater efficiency within those affected networks.
- The need to examine blockchain’s relevance to supply chain management; as well as new modes of transport such as the hyperloop.
- Innovative financing and delivery methods for transportation projects.
- The value of the data generated by autonomous and augmented vehicles, PTC, ELD and the importance of data-sharing relationships with OEMs.
- The value in exploring different axle configurations.
- Utilizing more environmentally friendly de-icers.
- Reducing interactions between vehicles to improve operation.
- New registration technologies and a new streamlined process to the oversize/overweight (OSOW) permitting system.

Beau Wittowski gave a presentation on the Hours of Service proposals released in August 2019. Advanced Notice of Proposed Rulemaking (NPRM) were published and open for comment from August 23 to October 10, 2018. More than 5,000 comments were received.

The goals of the proposed rules are meant to improve safety by providing flexibility to the hours-of-service regulations used by commercial motor vehicle drivers. The proposed update is designed to reduce the need for drivers to “race the clock” by driving through congestion or to find safe parking thus improving safety. The proposal will also provide an estimated \$270 million in regulatory savings.

FMCSA is still requesting input and data from both industry and the public and is specifically interested in soliciting feedback regarding:

- Any supporting data on the possibility of a 6 and 4 hour split break
- What operations would benefit from multiple off-duty periods totaling 3 hours?
- How often do work shifts require an individual to drive more than 8 hours without at least a 30-minute change in duty status?
- Whether drivers utilize this provision more often after the proposed changes if adverse conditions cannot be predicted?

Additional information can be found at: <https://www.fmcsa.dot.gov/content/hours-service-nprm>

10:20 AM Evaluation of Infrastructure Criticality - Context

An overview of past and current efforts to systematically evaluate the criticality of transportation infrastructure in the state.

**Sam Hiscocks
Iowa DOT**

Past

- Crude Oil and Biofuels Rail Transportation Study (2016)
- State Freight and Rail Plans bottleneck analysis (2017)
- ICE-Ops winter weather and flooding susceptibility

**Tara Cullison
Bi-State MPO**

Current

- Criticality analysis for use of Emergency Relief (ER) funds
- Resilience and Durability to Extreme Weather Pilot Program

Sam Hiscocks provided an overview of current and previous efforts the Iowa DOT undertook to evaluate the criticality of transportation infrastructure within the state.

Crude Oil and Biofuels Rail Transportation Study (2016)

- Determine risks, vulnerabilities, prevention methods, preparedness, and response capabilities for crude oil and biofuels railroad transportation in Iowa.
- Analysis included: Routes and volumes of rail traffic; length of rail segments transporting crude or ethanol; population of adjacent communities, critical facilities; risks to public health, safety, and environment; locations of previous incidents; likelihood of future incidents; prevention and mitigation plans and programs.
- Link: <https://iowadot.gov/iowarail/safety/full-final-CBR-Biofuels.pdf>

State Freight and Rail Plans bottleneck analysis (2017)

- Analyzed modes to identify physical, operational, and regulatory bottlenecks in the freight system.
- Highways were analyzed using a VCAP (Value, Condition, Performance) matrix.

- Rail bottlenecks were identified by flood-prone areas, swing-span bridges, and other locations identified by rail companies.
- Waterway bottlenecks were identified by locks and swing-span bridges.
- Link: https://iowadot.gov/iowainmotion/files/Iowa_State_Freight_Plan_FINAL.pdf

ICE-Ops winter weather and flooding susceptibility (2017)

- Infrastructure Condition Index for Operations (ICE-Ops)
- Screening tool to support data-driven decisions for prioritization of limited resources.
- Factors included: AADT (Average Annual Daily Traffic), All bottleneck occurrences per mile, freight bottleneck occurrences per mile, incident frequency per mile, BTI (Buffer Time Index), event center buffer mileage, weather-sensitive corridor mileage, and Infrastructure Condition Evaluation (ICE) rating
- Link: <https://iowadot.gov/TSMO/TSMO-Program-Plan.pdf>

Criticality Analysis for Use of Emergency Relief (ER) Funds

- Study undertaken to demonstrate and justify the use of ER funds for betterments used in the design and reconstruction of critical infrastructure impacted by flooding.
- Variables and Factors considered by measuring: Usage by Federal Function Classification (30%), Economic Impact using Truck Traffic Volumes (30%), Social Impact using the Social Vulnerability Index (SoVI) (10%), and Redundancy (System Impact) (30%)
- Factors Classified into quintiles, assigned indices and summed to produce criticality scores into three classes – low, medium, and high criticality.

ISU Resilience and Durability to Extreme Weather Pilot Program

- Define Resilience goals and targets (e.g., functionality of the system after disruptive events);
- Attempt to understand the characteristics of the system;
- Characterize disruption scenarios (e.g., maintenance activities, flooding, snow storms, etc.);
- Estimate Consequences (e.g., replacement cost, economic impact, loss of access, delay, etc.); and
- Find optimized solutions for possible improvements.

Tara Cullison from the Bi-State Regional Commission presented an ongoing FHWA pilot project to conduct a vulnerability assessment in the Quad Cities and determine strategies to mitigate their impacts. The FHWA's "Vulnerability Assessment and Adaptation Framework" provided a structured process for conducting a vulnerability assessment. It suggests ways to use results in practice and features examples from other projects. This study targeted the assessment of multi-modal facilities during extreme weather events within the Quad Cities region. Events such as river flooding and flash flooding; hail and lightning storms, high winds; severe heat events; severe winter events; and tornadoes. Stakeholders were surveyed and interviewed to include additional critical infrastructure and facilities to the list of facilities previously identified.

11:00 AM Evaluation of Infrastructure Criticality – Input Exercise

A facilitated discussion around the factors that should be considered when systematically evaluating the criticality of infrastructure and the relative importance of such factors.

**Mike Steenhoek, Chair
Soy Transportation
Coalition**

Mike Steenhoek facilitated a discussion around the factors that should be considered when systematically evaluating the criticality of infrastructure and the relative importance of such factors. The discussion was kicked off by asking how input for criticality measures should be solicited.

Pulling from the previous presentation, it was mentioned that public feedback, when received, is often critical, urgent, and late or untimely. The discussion continued to cover methods to solicit public feedback that are specific and accessible.

Highlights included:

- The importance of “managing expectations;”
- The usefulness of spatially and temporally mapping comments;
- Using social media to shape expectations;
- The value of face-to-face communication;
- The importance of serving all constituents and stakeholders, not just the loudest voices in the room;
- Leveraging technology and decision-making tools to support and communicate needs.

11:45 AM Lunch

12:30 PM Innovative Approaches to Local Infrastructure

A presentation on the use of innovative mechanisms, approaches, and techniques to replacing and repairing local roads and bridges.

**Brian Keierleber
Buchanan County**

Brian Keierleber presented approaches and techniques for replacing and repairing local roads and bridges. Brian discussed the value of understanding and integrating new technologies, and the use of new materials to extend the service lifetimes of bridges and roadways. He also discussed the professional relationships he has built as the Buchanan County Engineer and the dividends they have delivered.

1:15 PM Infrastructure Design and Construction to Improve Resiliency

An overview of lessons learned from past emergency weather events such as specific types of infrastructure that were problematic and specific design strategies that have been implemented to improve resiliency.

**Dave Claman
Iowa DOT**

Dave Claman provided an overview of lessons learned from emergency weather events, specific types of infrastructure that were problematic, technologies that can be deployed quickly to harden infrastructure, and specific design strategies that have been implemented to improve resiliency. Dave also covered flood modeling and how the Department’s resiliency mindset shaped the response to events in 2019 and contrasted it with the response to 2011 flooding.

1:45 PM Innovative Approaches to Infrastructure Discussion

Discussion of innovative approaches to infrastructure and how they can be further promoted and utilized throughout the state.

**Mike Steenhoek, Chair
Soy Transportation
Coalition**

Mike Steenhoek, Chair of the FAC, adjourned the meeting. Before doing so recapped the discussion and encouraged members to:

- Take what is being covered during resiliency discussions and disseminate it to all levels within their organizations; whether that be a state or local government, an industry group, or a commercial enterprise
- Consider the barriers to the implementation of these good ideas and ways that they can be overcome; and to carry the discussion forward at future meetings of the Freight Advisory Council.

2:00 PM Adjourn

2019 meetings: December 13