



House Transportation, Mobility & Infrastructure Committee

March 7, 2023

Presenters:

Jayson Nault, PE - President, ACEC/Michigan

Ron Brenke, PE - Executive Director, ACEC/Michigan

What *is* ACEC?

The Business of Engineering: Advocacy, Business Resources and Networking





AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Michigan

- 105 Member Firms in Michigan
- ACEC members focus on the **Built Environment**

The American Council of Engineering Companies of Michigan (ACEC/Michigan) is the business voice of the Michigan consulting engineering industry. Founded in 1956, ACEC/Michigan was organized with the objective of assisting its members in achieving higher professional, business and economic standards, thus enabling them to provide better engineering services in the interest of their clients.



Jayson Nault
Tetra Tech
President



Jon Kramer
OHM Advisors
President-Elect



Eric Morris
HNTB
Treasurer



Chris Cook
Abonmarche
Past President



G. Ramanujam
Somat
National Director



Barbara Arens
Cincar Consulting
Director



Eric Barden
Spicer Group
Director



Rick Chelotti
Bergmann
Director



Chuck Gemayel
SME
Director



Cheryl Gregory
ROWE PSC
Director



Connie Houk
Prein&Newhof
Director



Jeff Schumaker
Fishbeck
Director



Scott Shogan
WSP
Director



Matthew Stacey
Wade Trim
Director



Oge Udegbunam
Tyme
Director

ACEC/MICHIGAN 2022 – 2023 BOARD OF DIRECTORS

ACEC/Michigan Citizen Lobbyists





ACEC Emerging Leaders



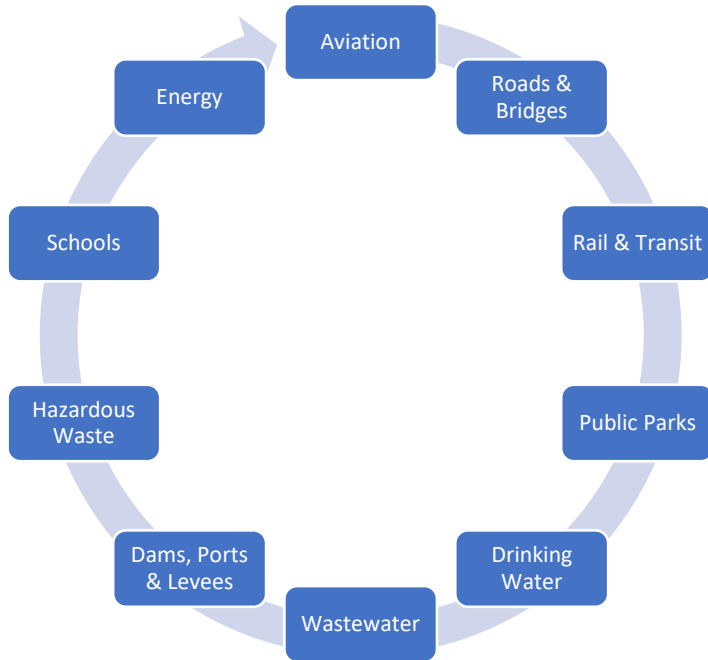
Construction Science Expo

- 1,000+ Detroit High School & Junior High Students
- Collaboration with Skilled Trades & Engineers
- 12th Year, Adding Lansing in 2023



CONSTRUCTION
SCIENCE EXPO

Infrastructure Sectors



TRAILS

- ▶ Statewide efforts like the Iron Belle Trail have improved cross-community trail linkages and economic development opportunities, continuing Michigan's legacy as "The Trail State."

SMART ENVIRONMENTS

- ▶ Medical devices transmit patient data from homes to hospitals and alert first responders in case of an emergency, allowing more residents to age in place.
- ▶ Street lights make communities safer by prompting city workers to replace the light bulb before it burns out.
- ▶ Technology alerts law enforcement of crime or suspicious activity as it happens so they can arrive on the scene sooner.
- ▶ Using data from intelligent sensors, control systems will optimize and manage the flow of people and vehicles out of urban infrastructure to coordinate intelligent mobility.

COMMUNICATIONS

- ▶ Advanced broadband technology enables employees to work from anywhere, at any time, and provides students with the ability to access educational resources even in the most rural areas.
- ▶ Michigan will continue to set industry standards in cyber security by finding innovative ways to defend critical information, control access and identify management, and embrace new and emerging technologies.

GREEN INFRASTRUCTURE

- ▶ Stormwater and drainage systems manage water in a way that maximizes benefits to people and nature.
- ▶ Michigan's road and rail systems ensure that rivers, streams, and drains remain free flowing to protect ecosystem health and safely move people and goods.

WATER

- ▶ Water utilities are financially stable and provide safe, reliable, and high-quality service for all residents.
- ▶ Water systems are designed and built using the best available cost-effective technologies to equitably provide services to residents and businesses.
- ▶ Infrastructure will monitor water quality and water levels and alert government officials to maintenance issues before larger, more costly problems develop.

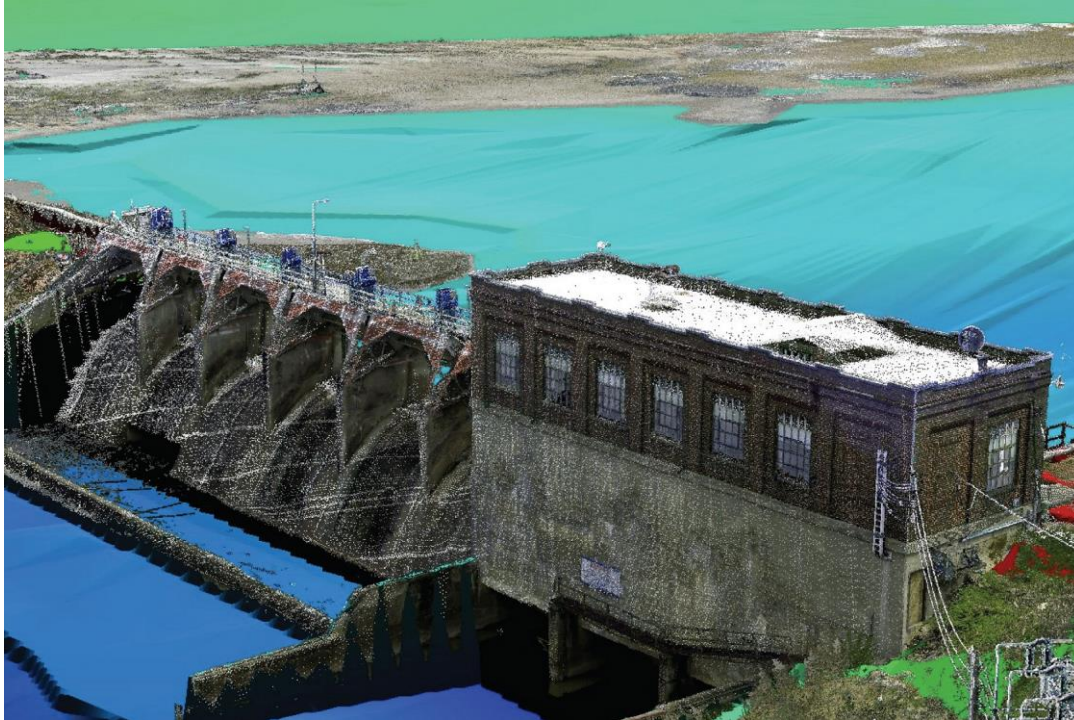
TRANSPORTATION

- ▶ Michigan leads the way in research and development of intelligent vehicles.
- ▶ Intelligent traffic systems allow commuters to avoid congestion by suggesting alternative travel routes.

Infrastructure – Rail and Airports



Infrastructure – Water Resources



Infrastructure – Transportation

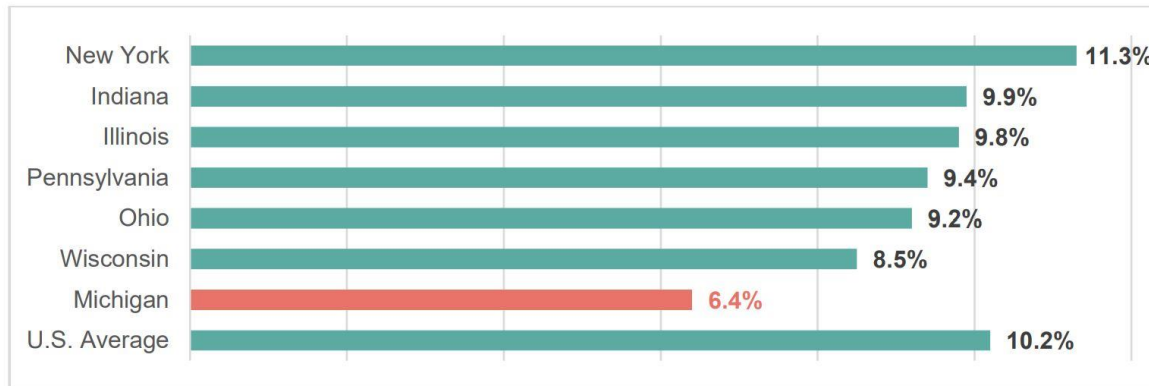


Michigan's Infrastructure



Michigan's Infrastructure

EXHIBIT 4. State and Local Capital Spending Comparison

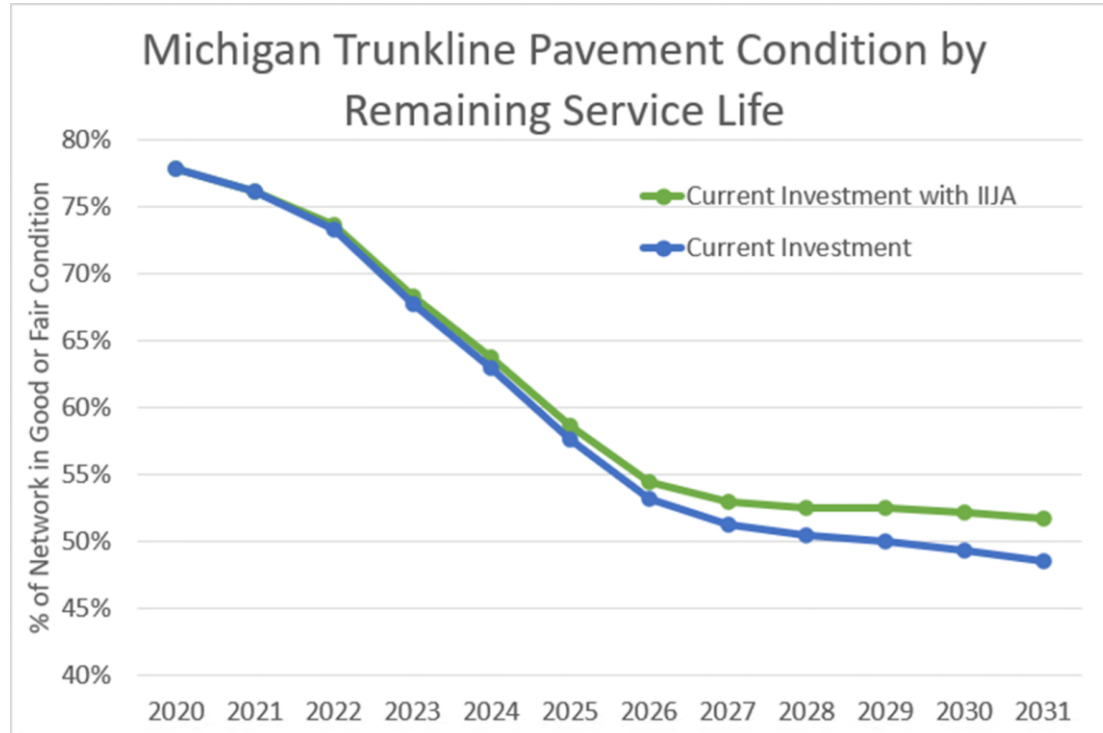


Note: Percent of total expenditure, annual average 2010-14.

Source: Deloitte 2016.

From 2002 to 2013, Michigan had the third largest decline in state and local infrastructure spending as a share of GDP (McNichol 2016)

Transportation Funding



(Source: MDOT)

Transportation Funding - Roads

2021 Federal-Aid Pavement Condition

Percent Lane Miles

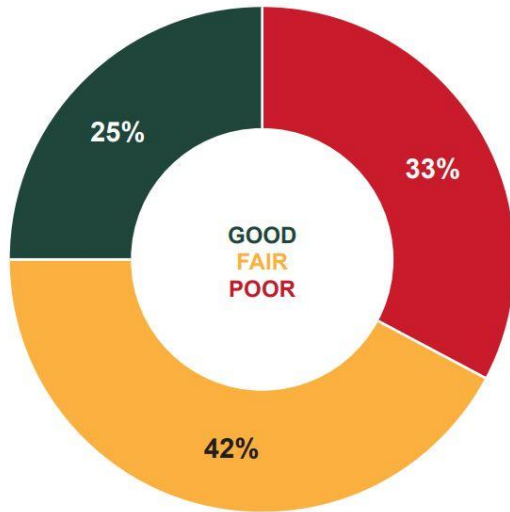


Figure 4

Source: 2021 PASER Data Collection

PASER Condition Ratings

8-10	Good Condition	Routine maintenance candidate.
5-7	Fair Condition	Preventative maintenance or rehabilitation candidate.
1-4	Poor Condition	Rehabilitation or reconstruction candidate.

2021 Non-Federal-Aid Road Condition

Percent Lane Miles

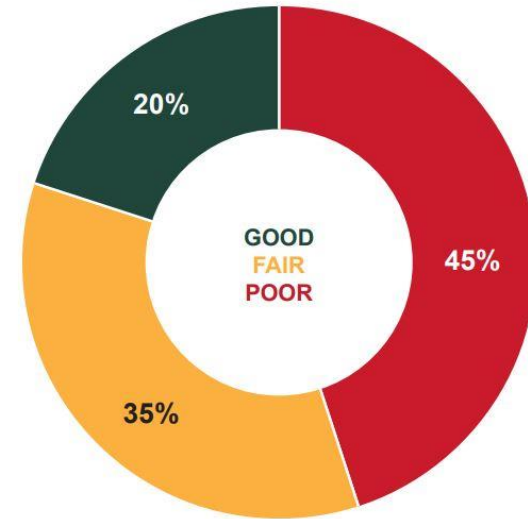


Figure 7

Source: 2021 PASER Data Collection

Transportation Funding - Bridges

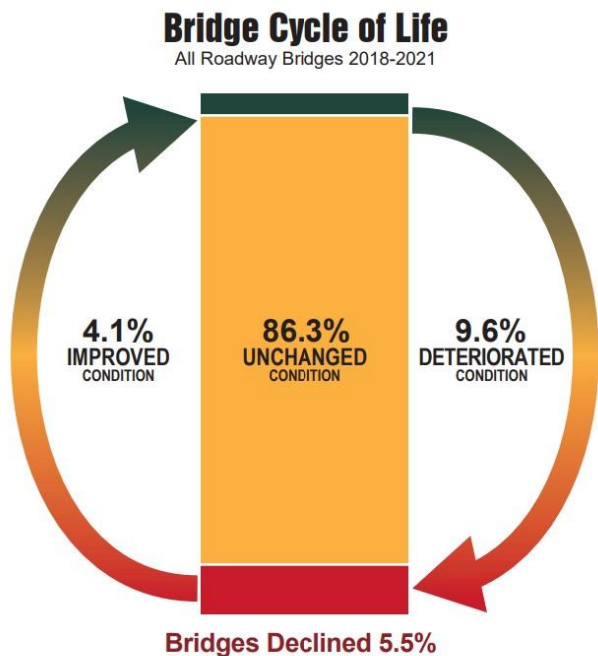


Figure 14

Source: 2018-2021 Michigan Bridge Inventory

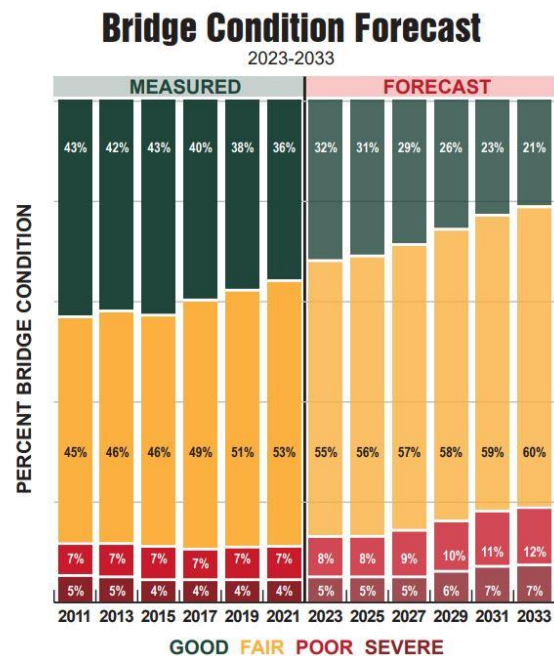


Figure 15

Source: 2021 TAMC

Transportation Funding - Bridges

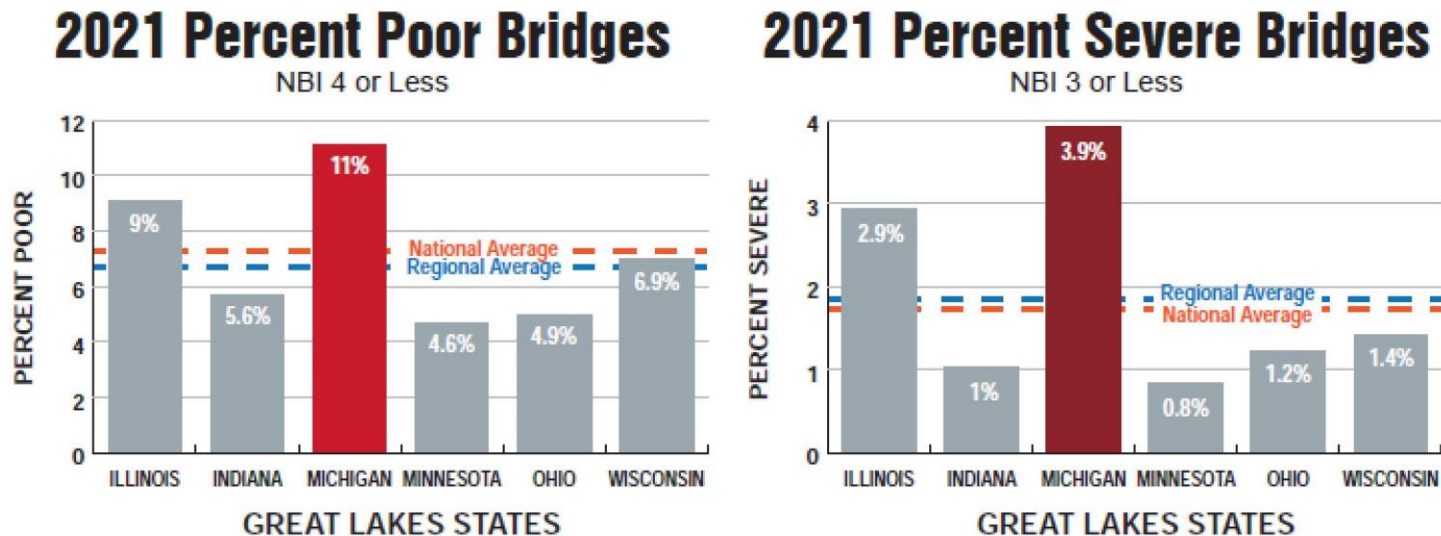


Figure 11

Source: 2021 Michigan Bridge Inventory

Water Infrastructure

- Since 2008, an average of 5.7 billion gallons of untreated sewage flowed into Michigan waterways (MDEQ)
- 64 rivers that drain 84 percent of Michigan's Lower Peninsula tested positive for human sewage (Verhougstraete et al. 2014)
- Nearly 25 percent of beaches experienced closures (MDEQ)
- Approximately 130,000 (10 percent) of the state's 1.3 million septic systems are likely experiencing operational problems (Creagh)

Legislative Initiatives: Qualifications-Based Selection

Procurement of Architectural or Engineering Services based on Qualifications & Expertise (not low bid) for State Agencies.



QBS saves **money**



QBS saves **time**



QBS **simplifies** complex projects



QBS **delivers** innovation

Legislative Initiatives: Improvements to Public Act 132 of 1970

PA 132 of 1970, as amended is an act to provide for the filing of surveys in the office of the register of deeds relative to land divisions; and to prescribe the conditions of the survey.

The proposed legislation would update the mapping requirements for certified survey maps, allows for computer aided drafting (CAD) mapping, and ties the Records Reproduction Act, PA 116 of 1992 to this revision.

The proposed legislation would allow the Professional surveyor optional methods for marking property corners when there are physical obstructions present at the corner location.

The proposed legislation would expand the requirements for defining section lines to match those requirements within the State of Michigan Remonumentation Act

Questions?



AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Michigan

www.acecmi.org

Ph: 517-332-2066