TAMC’s Mission:

To develop and support excellence in managing Michigan's Transportation assets by:

1. Advising the Legislature, State Transportation Commission (STC), Michigan Infrastructure Council (MIC), and Transportation Committees
2. Promoting Asset Management Principles
3. Providing tools and practices for road agencies
4. Collaborate and coordinate with Water Asset Management Council (WAMC) and other asset owners
Strategic Work Program

- An updated Three-Year Program Approved by TAMC on January 6, 2021
- Maintains Core Tenants of TAMC’s Commitment to Data Collection, Training and Education through Critical Partnerships
- Continue Deployment of Asset Management Plan Administration
- Further Development and Implementation of Programs for Culverts and Traffic Signals
Strategic Work Program

Where can I find the details of this Program?

www.Michigan.gov/TAMC - About Us

STRATEGIC PLAN

The Transportation Asset Management Council is expanding the practice of asset management statewide to enhance the productivity of investing in Michigan's roads and bridges through coordination and collaboration among state and local transportation agencies. The Council's activities include surveying and reporting the condition of roads and bridges by functional classification categories and assessing completed and planned investments in roads and bridges. The Council also supports the development of appropriate asset management methodologies and provides education and training on the benefits of developing road improvement programs through the use of asset management principles and procedures.

Download 2021-2023 Strategic Work Program (PDF)

Annual Reports
TAMC is required by P.A. 459 of 2002 to prepare an annual report detailing its activities during the previous year, and its plans for the upcoming year. The most recently published Annual Report can be found here, along with links to several previous Annual Reports.

Council Policies
To ensure consistency, TAMC has adopted several policies governing the way data will be collected, stored, and distributed, for both Federal-Aid Eligible and Non-Federal-Aid roads. Those policies can be found here, along with the current bylaws that govern the organization and operation of TAMC.

Required Reporting
All road agencies in Michigan are required to report annually on their finances: How much income did they have? Where did it come from? And how did they spend it? This report is referred to as ADARS, which stands for Act 51 Distribution and Reporting System. Road agencies are also required to report on asset management plants.
Annual Budget Overview

TAMC Program – FY21/FY22

- **Regional Program & Data Collection** - $1,116,400
- **Central Data Agency & Technology** - $374,950
- **Training & Education Program** - $225,000
- **Activities & Special Studies Program** - $115,000
- **Council & Conference Expenses** - $40,000
Representing All Levels of Government

Brad Wieferich
MDOT

Bill McEntee
Vice-Chair, CRA

Derek Bradshaw
MAR

Todd White
MDOT

Christopher Bolt
MAC

Rob Surber
Central Data Agency

Ryan Buck
MTPA

Joanna Johnson
Chair, CRA

Bob Slattery
MML

Gary Mekjian
MML

Jennifer Tubbs
MTA
Outcomes of TAMC’s Program

• Agencies have tools to extract information from data
  – Current condition mapping
  – Reporting & analysis
  – Deterioration models
  – Treatment benefit study tool
  – Network level model – determine condition for given budget

• Asset Management Planning is an ongoing Business Practice

• We talk the same language! Even beyond transportation agencies!
2021 Bridge Asset Management Training Schedule

Spring Training

• Introductory Webinar (parts 1 & 2)
  • May 4 & 6

• Virtual Workshop
  • May 11 & 12, 18 & 19

Fall Training (~in-person, Lansing area)

• Introductory Webinar (parts 1 & 2)
  • Aug 31 & Sept 2

• Workshop
  • September 8
2019 Annual Report Highlights
New Tech Items
Looking into 2021
Comparing Bridge Condition

Michigan lags behind its neighboring Great Lakes States in terms of bridge condition. As seen in Figure 11, Michigan has the highest percentage of poor bridges in the Great Lakes Region, and also has significantly more poor bridges than the national average. More concerning, when measuring the bridges in Severe Condition, or those requiring additional monitoring, immediate action, or at risk of closure, Michigan has double the percentage of bridges with NBI ratings of 3 or less.

2019 Percent Poor Bridges
NBI 4 or Less

2019 Percent Severe Bridges
NBI 3 or Less

Figure 11
Source: 2019 National Bridge Inventory
Trunkline Bridges

Unlike roads, all bridges are considered federal-aid eligible. Figure 12 shows that MDOT has around 6% of its bridges in poor or severe condition and 67% of bridges are in fair condition. This large population of bridges in fair condition represents the previous investments in preservation. Until recently, MDOT has been able to maintain the number of bridges in fair condition before they reach the poor category, while increasing the number of bridges in good and fair condition. An aging infrastructure and rising costs along with stagnant funding or not enough existing revenue or lack of new revenue to maintain our aging bridges, have reversed some of that progress.

The number of bridges in fair condition has increased, and since 2017 the number of bridges in poor condition has increased as preservation needs exceed available revenues. Maintaining or improving the bridges rated in good or fair condition is imperative to prevent the number of bridges in the poor category from increasing further.

2019 Trunkline Bridge Condition

- Good: 67%
- Fair: 26%
- Poor: 6%
- Severe: <1%

Figure 12
Source: 2019 National Bridge Inventory
Bridge Cycle of Life

Old ways

Michigan Bridges Cycle of Life
2014-2017

2016 Bridges Cycle
All of Michigan
PERCENT OF BRIDGES BY COUNT
10.2% Have Declined

Good
35.9% Unchanged

Fair
46.4% Unchanged

Poor
6.9% Unchanged

6.6% Have Improved

Bridges Declined 7.6%

Source: 2016-2019 Michigan Bridge Inventory
Bridge Project Details

Figure 20 indicates that investment in bridge projects vary from year to year with a range of $160M to $375M. Roughly $1.12 billion was reported from 2016-2019.

Of Michigan’s 617 road agencies, 352 own and maintain bridges. Of Michigan’s 11,000 bridges, approximately half are owned by MDOT and half by local road agencies. Bridges can vary substantially in their length, deck area and other factors. However, replacing a bridge often greatly impacts the local economy as well as emergency services regardless of agency size.

Figure 21 shows a sample of IRT reported replacement bridge projects. An average “small bridge” could be a 60 foot one span crossing with 2 lanes of traffic where a “large bridge” may have additional lanes and spans to cross further distances and carry heavier commercial traffic.

Sustained funding and preventive maintenance are even more critical for a bridge. The cost to replace a bridge for a small road agency may be more expensive than maintaining all the roads they own.

Note: The Rouge River Bridge, Zilwaukee Bridge and other large bridges are not included in statewide totals, since the high cost of this type of project would significantly shift totals and averages.
New Tech Items

- IRT – New options with planned projects:
  - IRT Roadsoft Project Uploads “Clean Slate”
  - JobNet/STIP Projects Import

- Dashboards – added Culverts “Provisional” Data

- Interactive Map – new layout and added Culverts
IRT (Investment Reporting Tool)

- IRT is a tool created by TAMC to meet ACT 51 reporting requirements:
  - MiLogin secure access
  - Online and free to agencies
  - Custom reports and maps
  - Supports Roadsoft uploads

- Agencies report annually their Road & Bridge Projects:
  - Current year
  - Next 3 years - Planned projects
  - *MIC “Dig Once” Project Portal* will include IRT projects
"Clean Slate" Roadsoft to IRT Planned Project Uploads

- Helps Roadsoft using agencies clean out previously entered IRT planned projects that may have been abandoned or modified.
- Improves overall TAMC IRT data set for analysis and collaboration efforts.
IRT - JobNet Import (STIP Projects)

- Provides option to import planned STIP projects already entered by their MPOs in a similar system called JobNet.
- Saves time and effort for agencies using the IRT and removes duplication of work.
- Increases number of planned projects reported in the IRT for analysis and consistency in collaboration efforts.
- Expected release - April 2021
Training and Resources Available

1. Webinars
2. YouTube Videos
3. Training Manual
4. Helpdesk
1. Public Website
   • Mobile ready – phones & tablets

2. Updated Annually
   • Road and Bridge conditions in May
   • Other data sets in the Fall
TAMC Dashboards

The dashboards depicted below show the condition, operation, and investment in Michigan's public road system. Pavement condition information is based on paved surface ratings for state highways as well as roads under the jurisdiction of Michigan's counties, cities, and villages. Statewide there are over 10,000 public road bridges. Bridge conditions are based on biannual inspections of state, county, city, and village owned bridges. The number of traffic accidents is a measure of how effectively the road system is performing. Maintenance is required to keep roads and bridges performing as intended. These activities include snow removal, patching, grading, and mowing. Capital investments are necessary to extend the useful life of any asset including roads and bridges. The financial pie charts illustrate how investments in the road and bridge system are made.
1. Added more geographic areas
2. Roll-ups by agencies with 100+ centerline miles
3. Culverts provisional data set
TAMC Happenings in 2021

- TAMC Strategic Planning
- Culvert Efforts Continue
- Traffic Signals
- Transportation Asset Management Plans
Looking into 2021 - Culverts 2.0

2021 ramps up the culvert discussion as the below items are all in the works:

- Official collection policies
- Guidance manuals
- New training that will incorporate national standards, and lessons learned from the 2018 Culvert Inventory Pilot
Looking into 2021 - Culverts 2.0

- Major updates to Roadsoft and Investment Reporting Tool
- Create new features for the standardization, workflow and improved integrity of the data sets.
- This standardized culvert data set will then be housed by TAMC’s Central Data Agency, CSS.
- Will feed the different transparency efforts as shown in their provisional format for the Interactive Map and Dashboard.
Asset Management Plan: Act 51 Mandate

• Transportation Asset Management Plan (TAMP)

• Public Act 325 of 2018
  – Defines 7 elements of Asset Management Plan
  – Required by agencies w/ 100+ miles
  – TAMC charged with establishing schedule of due dates, TAMP Template, & Training

• TAMP Template
  – Pavement Plan + Bridge Plan + Compliance Plan
  – Pulls Data from MiBRIDGE & Roadsoft
  – Customizable, Word-format
  – Bridge & Pavement Plan Workshops
TAMP Template Required Elements

1. Asset Inventory
2. Performance Goals
3. Risk of Failure Analysis - NEW
4. Anticipated Revenue and Expenditures
5. Performance Outcomes
6. Coordination Clause - NEW
7. Proof of Adoption by Governing
TAMC TAMP Template

Pavement Plan

Bridge Plan

Buckley County Road Commission 2020 Pavement Asset Management Plan

Buckley County Road Commission 2020 Bridge Asset Management Plan
Compliance Plan

Executive Summary
Pavement Summary
Bridge Summary
Culvert Summary
Signal Summary
Financial Resources
Risk of Failure
Coordination W/ Others
Proof of Acceptance
Appendixes

Appendixes
Pavement Asset Management Plan
Bridge Asset Management Plan
Intro Primer Section
Glossary (definitions)
TAMP– 3 Year Schedule

- Certify 100 miles of road
- All 83 county road agencies
- 39 of Michigan’s largest cities
- Training Opportunities
- TAMC TAMP Template

Map indicates jurisdictions that certify 100 miles or more as part of their 2017 Act 91 Certification. To date, there are 133 agencies, including the Michigan Department of Transportation that fall into this category. This includes 50 county road agencies as well as 83 of Michigan’s largest cities.

Public Act 329 of 2018 amends Public Act 91 to establish Asset Management Plan requirements for these Top 123 agencies. TAMC established dates for the submission of these (data) agencies are highlighted according to the year in which their plan is due to TAMP.
Resources


TAMC Help Desk:
(517) 335-3741

Roger Belknap, MDOT, TAMC Coordinator

(517) 230-8192
[belknapr@michigan.gov](mailto:belknapr@michigan.gov)
Questions?