



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

TRANSPORTATION ASSET MANAGEMENT COUNCIL TAMC

AWARDS CONFERENCE TRAINING SUPPORT **ABOUT US** MEETINGS

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. 499 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

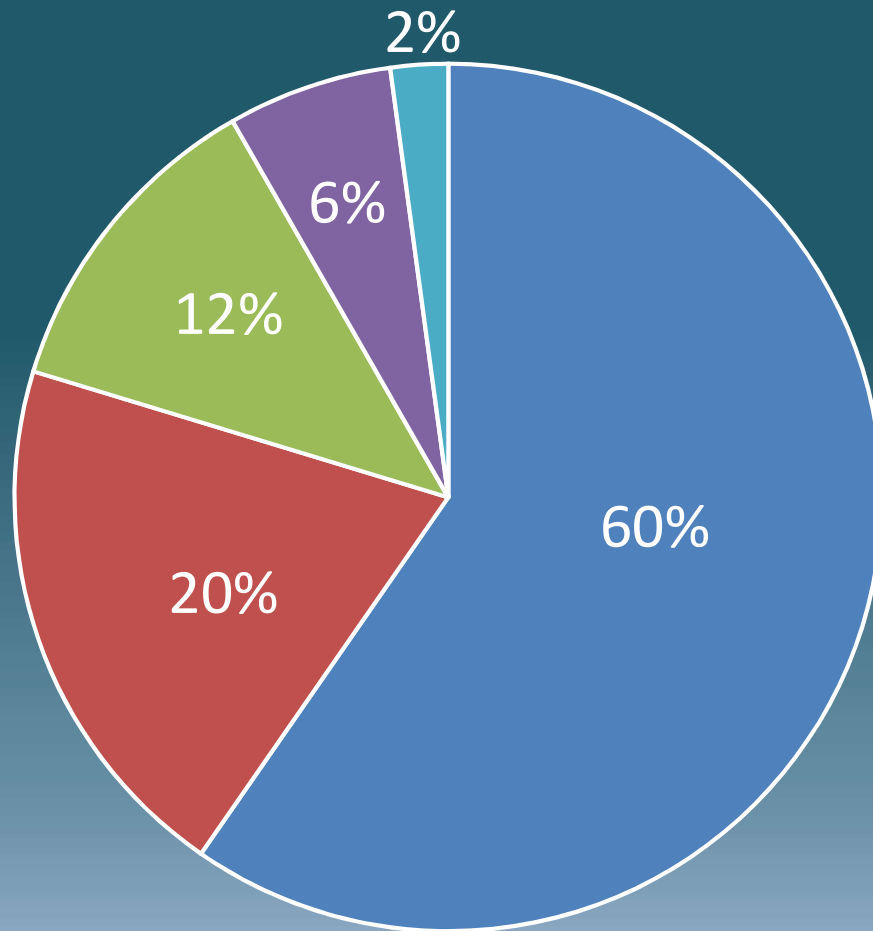
To ensure consistency, TAMC has adopted several policies governing the way data will be collected, stored, and distributed, for both Federal-Aid Eligible and Non-Federal-Aid roads. Those policies can be found here, along with the current bylaws that govern the organization and operation of TAMC.

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 all asset management-related



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

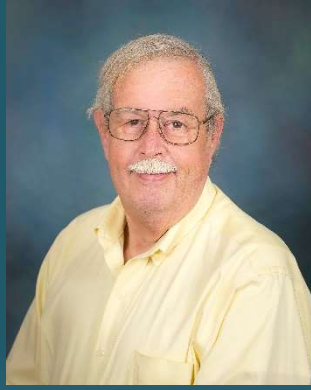


Michigan
Transportation Asset
Management Council

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



Photo Coming
Soon

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

NBI Condition Ratings		
7-9	Good Condition	Routine maintenance candidate.
5-6	Fair Condition	Preventative maintenance or minor rehabilitation candidate.
4	Poor Condition	Major rehabilitation or replacement candidate.
2-3	Severe Condition Serious or Critical Condition	Emergency repair, high priority major rehabilitation or replacement candidate. Unless closely monitored it may be necessary to close until corrective action can be taken.
0-1	Severe Condition Imminent Failure or Failed	Major rehabilitation or replacement candidate. Bridge is closed to traffic.

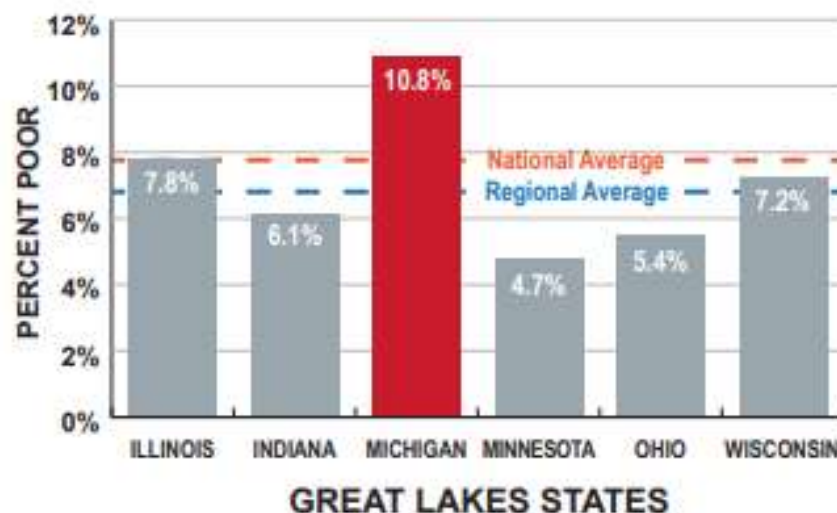


Comparing Bridge Condition

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

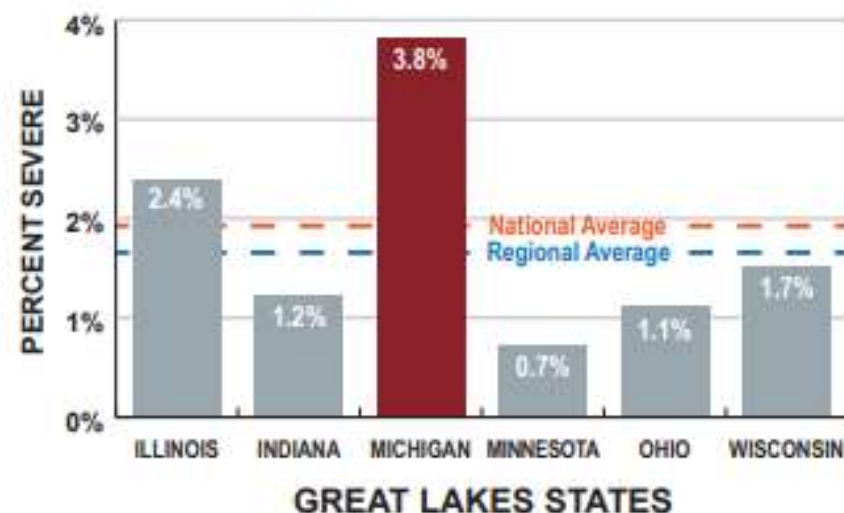


Figure 11

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

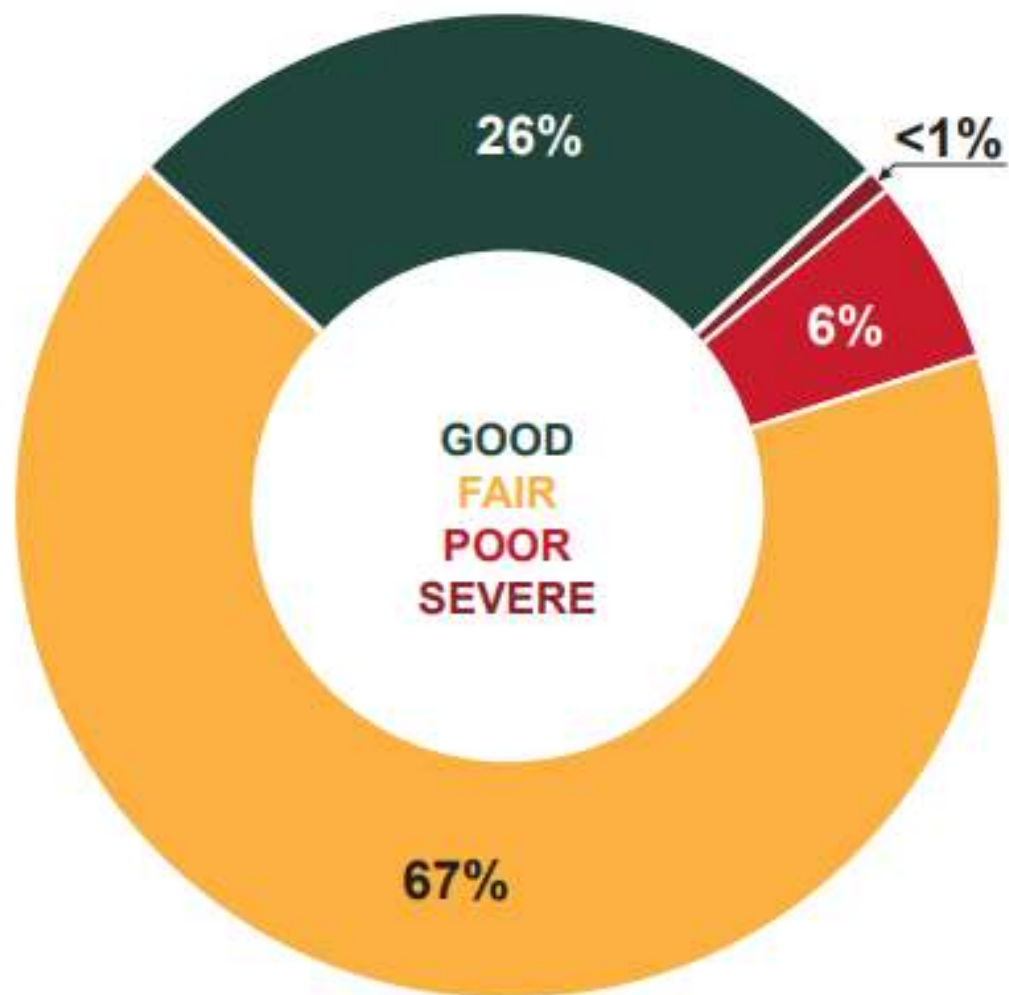


Figure 12

Source: 2019 National Bridge Inventory

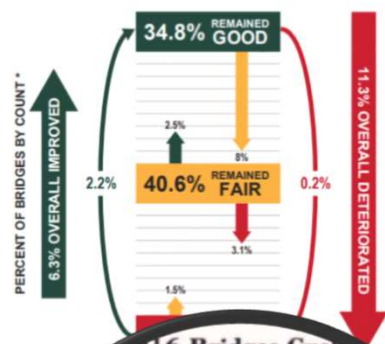
Bridge Cycle of Life

Old ways

bridges change from between the good, fair, and poor ratings and is referenced as the

Figur
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Michigan Bridges Cycle of Life 2014-2017



2016 Bridges Cycle All of Michigan

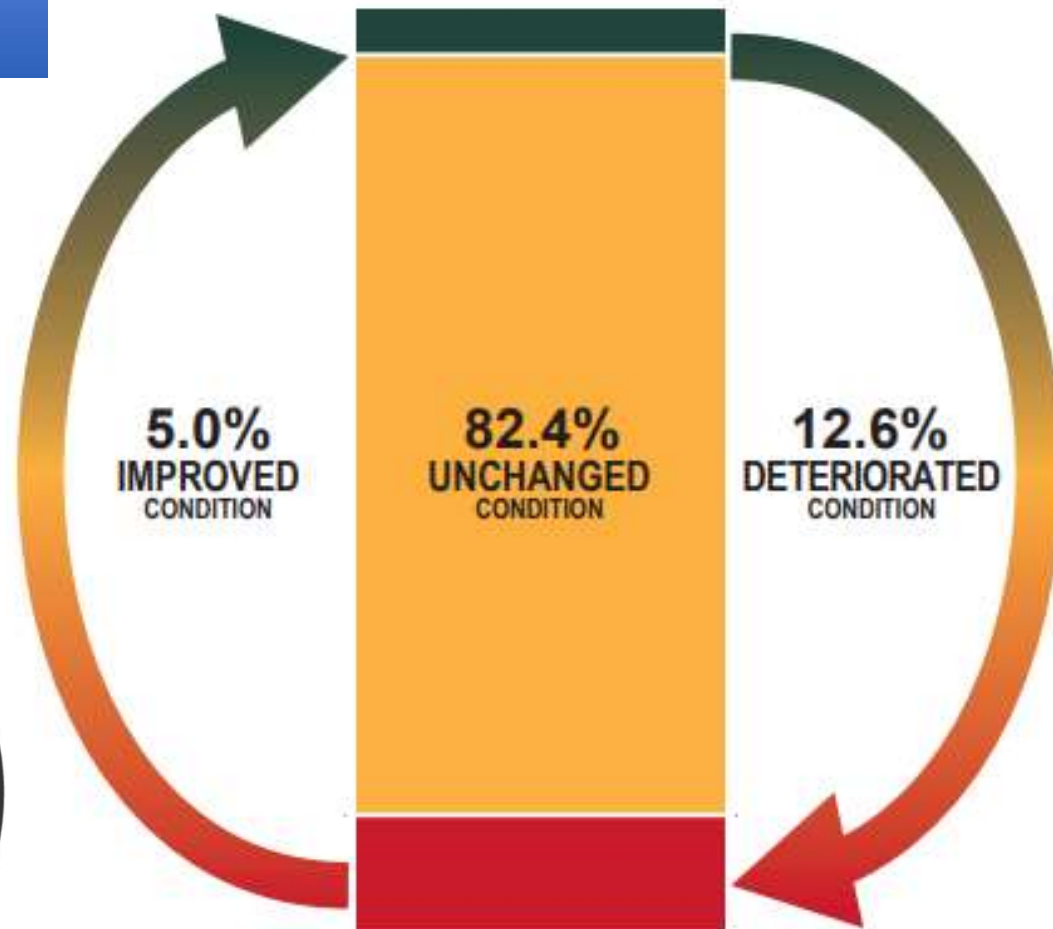
PERCENT OF BRIDGES BY COUNT



Figure 20
Source: MDOT Mar 2017

Bridge Cycle of Life

All Bridges 2016-2019



Bridges Declined 7.6%

Figure 14

Source: 2016-2019 Michigan Bridge Inventory

Bridge IRT Project Summaries			
Year	Agencies Reporting Bridge Projects	Total IRT Reported Cost	Projects Reported
2016	64	\$330 Million	293
2017	61	\$160 Million	244
2018	53	\$375 Million	351
2019	41	\$255 Million	352
Total:		\$1.12 Billion	1240

Figure 20
Source: 2016-2019 TAMC

Sample Replacement Costs

Small and Large Bridges

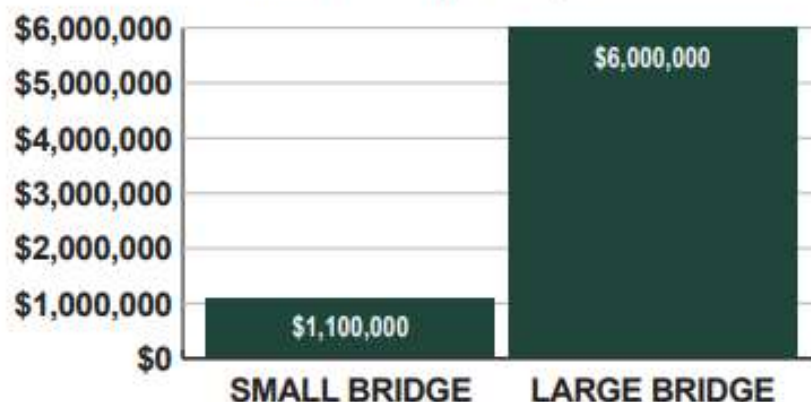


Figure 21
Source: 2016-2019 TAMC



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.

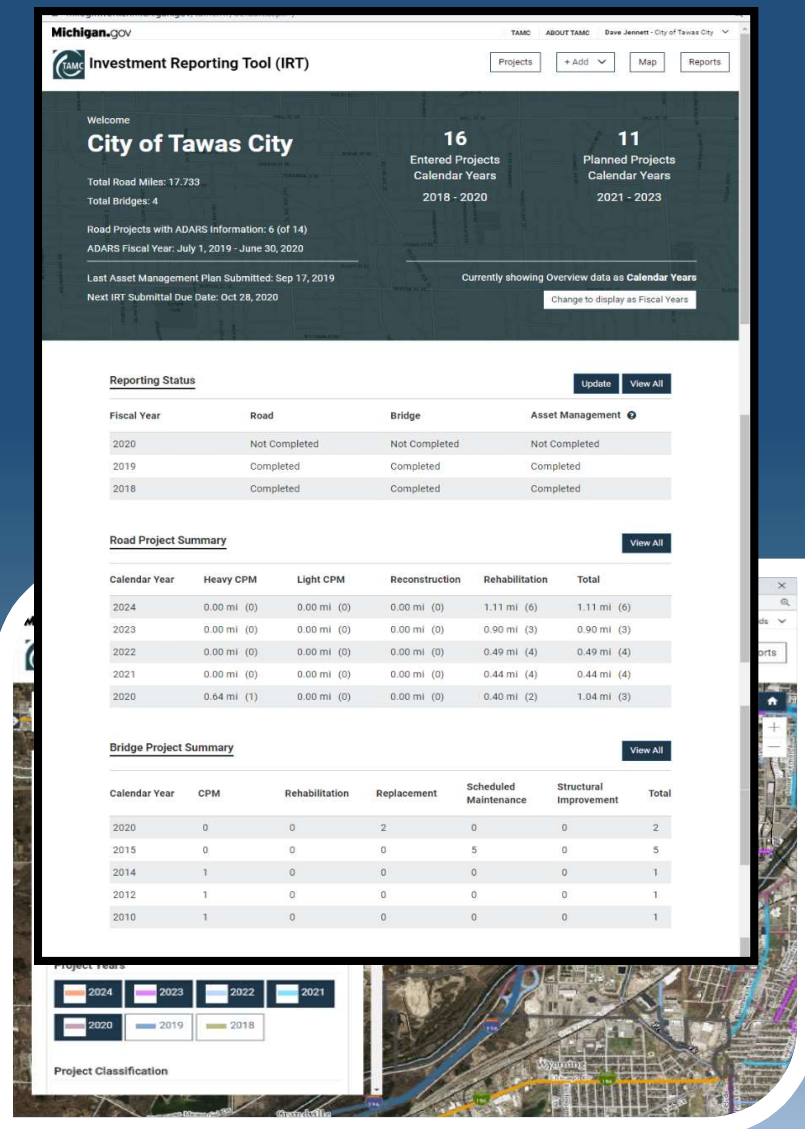
Sustained funding and preventive maintenance are even more critical for a bridge. The cost to replace a bridge for a small road agency may be more expensive than maintaining all the roads they own.

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 - Planed 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.

Select a Roadsoft File

Please select the Roadsoft XML file you wish to import.

This file should be an export from the [Roadsoft software](#). For instructions on how to export a compatible file, please read the Roadsoft tutorial on "[Exporting Roadsoft Project Data to TAMC's Investment Reporting Tool](#)". **Note:** it is recommended that you always upload the complete project list as of this date. This is true even if you uploaded once prior for this same time period.

Roadsoft
C:\Work
Comments
Comments

IRT Project Reconciliation

Projects found in IRT but not the upload file.

We found potentially orphaned road projects within the IRT. Please review the list below and delete any projects that are no longer valid. Typically, this will occur if you renamed a project in Roadsoft since you first uploaded it to IRT. This list also displays planned projects even if the upload did not contain any planned projects. This is to help keep Roadsoft data and IRT data in agreement. To delete projects, select the desired projects (or select the "Check All"), and click the "Delete" button. If you do not wish to delete any projects, or when you are finished select "I'm finished". Note you can export this project list to CSV.

☐ Check All Export to CSV

Delete?	Project ID	Project Date	PR	BMP	EMP	Surface	Treatment	Project Classification	Life Exp.	Num. Lanes	Comment
<input type="checkbox"/>	A459.380Renamed	06/06/2017	1030003	5.766	6.454	Asphalt	Crush and shape, asphalt surface	RHB	20	2	
<input type="checkbox"/>	A459.380Renamed	06/06/2017	1030003	6.454	8.095	Asphalt	Crush and shape	RHB	20	2	

☐ ☒ **Treat this upload as complete** (no need to keep any previously uploaded road projects for fiscal year(s) 2017).

☐ ☐ **Merge** this upload. IRT Data will update if needed, any conflicts will generate a list for you to review.

☐

☐

You have selected to delete projects from the IRT. We found 24 treatments for fiscal years 2017.

Please note that you can "Export to CSV" to have a spreadsheet record of what IRT projects are being removed:

Export to CSV

IRT - JobNet Import (STIP Projects)

Michigan.gov IRT

Projects + Add Map Reports

Print List View

Import Ignore

Bridge Project Details

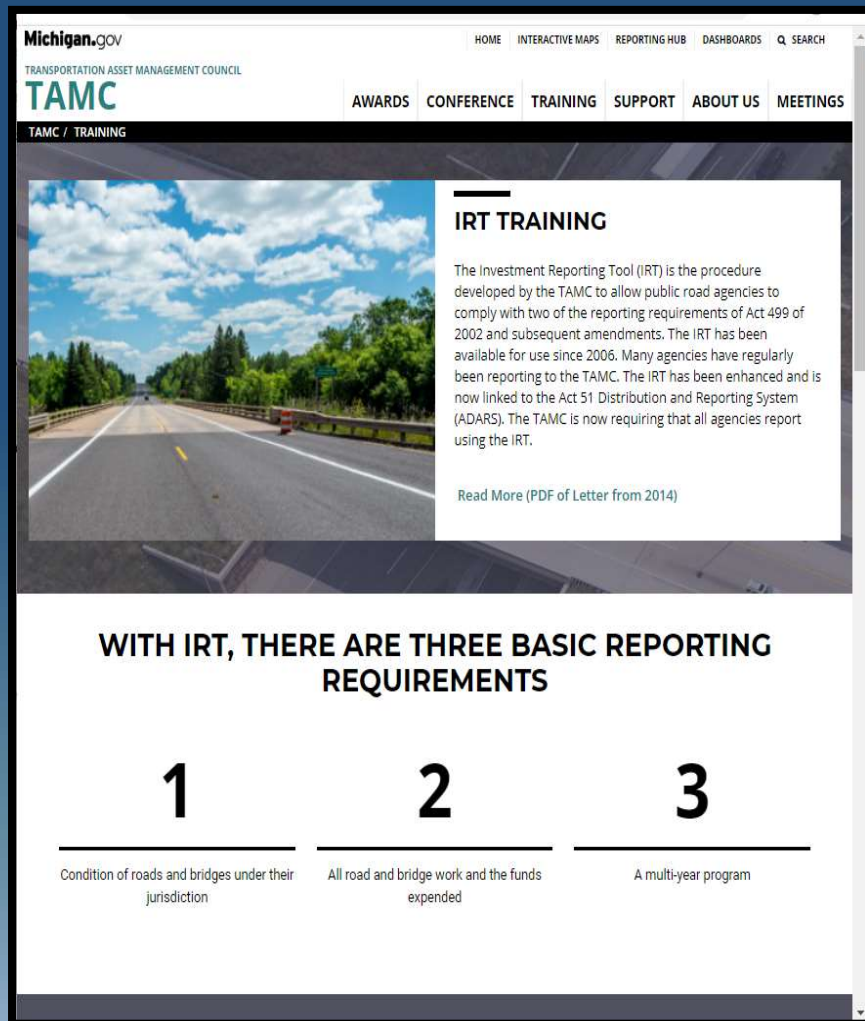
JobNet ID 209809	Project Start Date 2022-03-04	Open to Traffic Date 2022-11-14	Fiscal Years 2022
Project Classification * Capital Preventive Maintenance	Treatment Description Miscellaneous Bridge CPM	Total Project Cost \$268,000.00	Life Expectancy --
Project Comment Leffingwell Avenue over Grand Trunk Railroad, Str# 5217 - Grand Rapids		Project Description Miscellaneous Bridge Capital Preventative Maintenance	
Structure # 5217			

Segments (1) *

PR Number	PR Name	BMP	EMP
422103	Leffingwell Ave NE	0.108	0.108

- 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



The screenshot shows the Michigan.gov website with the TAMC (Transportation Asset Management Council) section. The navigation bar includes links for HOME, INTERACTIVE MAPS, REPORTING HUB, DASHBOARDS, and a search function. Below the navigation bar, there are tabs for AWARDS, CONFERENCE, TRAINING, SUPPORT, ABOUT US, and MEETINGS. The main content area is titled "TAMC / TRAINING" and features a large image of a road under a blue sky with clouds. To the right of the image, the text reads: "IRT TRAINING. The Investment Reporting Tool (IRT) is the procedure developed by the TAMC to allow public road agencies to comply with two of the reporting requirements of Act 499 of 2002 and subsequent amendments. The IRT has been available for use since 2006. Many agencies have regularly been reporting to the TAMC. The IRT has been enhanced and is now linked to the Act 51 Distribution and Reporting System (ADARS). The TAMC is now requiring that all agencies report using the IRT." Below this text is a link that says "Read More (PDF of Letter from 2014)".

WITH IRT, THERE ARE THREE BASIC REPORTING REQUIREMENTS

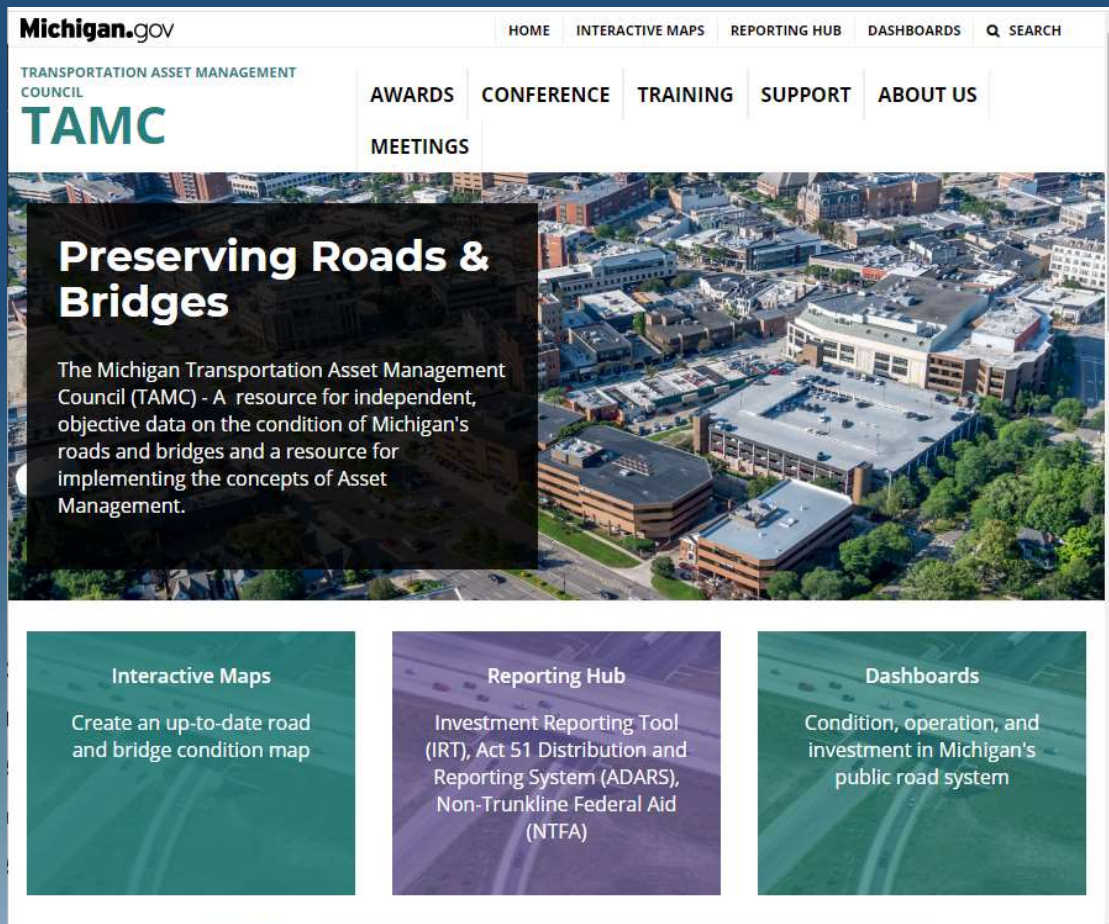
1	2	3
Condition of roads and bridges under their jurisdiction	All road and bridge work and the funds expended	A multi-year program

1. Webinars
2. YouTube Videos
3. Training Manual
4. Helpdesk



TAMC Website

Interactive Map & Dashboards



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 bi-annual 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.



Pavement



Bridge



Traffic



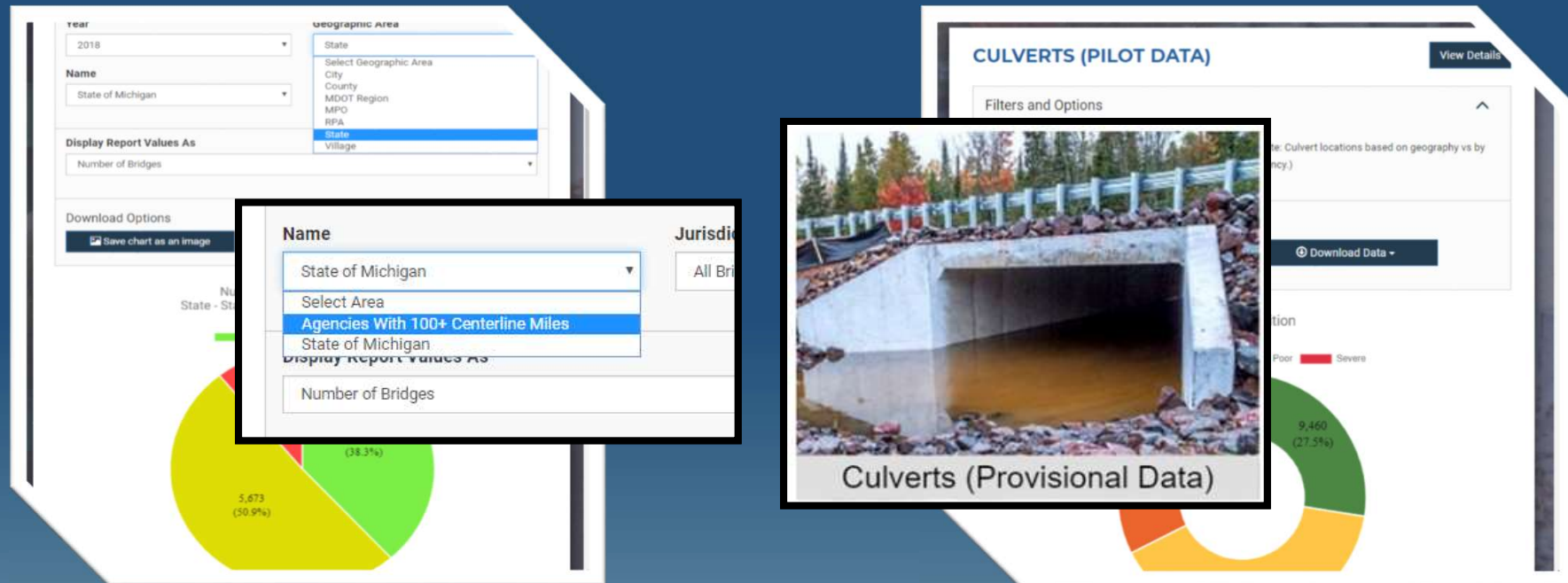
Safety



Maintenance

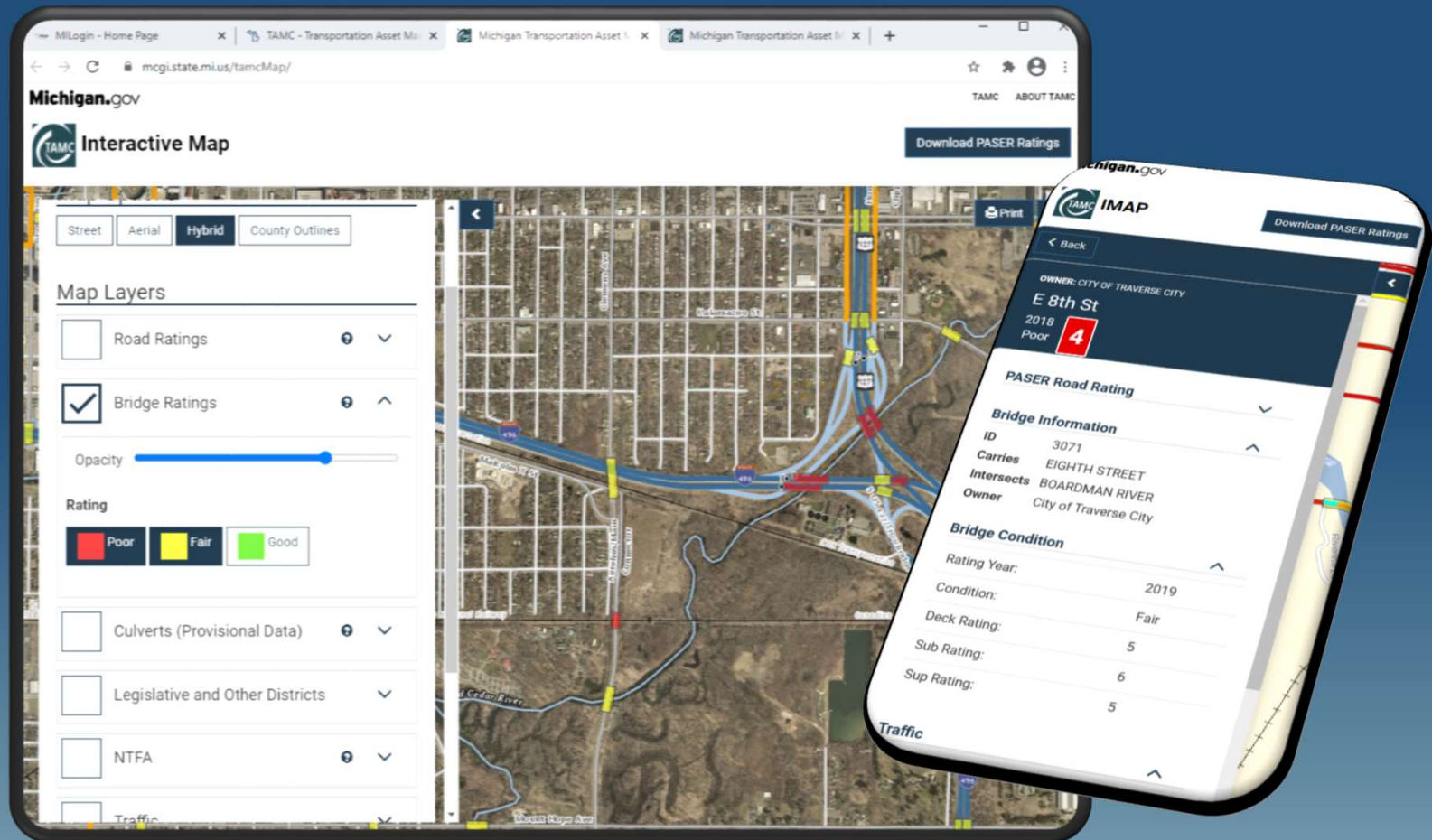


TAMC Dashboard New Options



1. Added more geographic areas
2. Roll-ups by agencies with 100+ centerline miles
3. *Culverts provisional data set*

TAMC Interactive Map



TAMC Happenings in 2021



Michigan's Roads & Bridges Annual
Report 2020 Report Due May 2,
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.

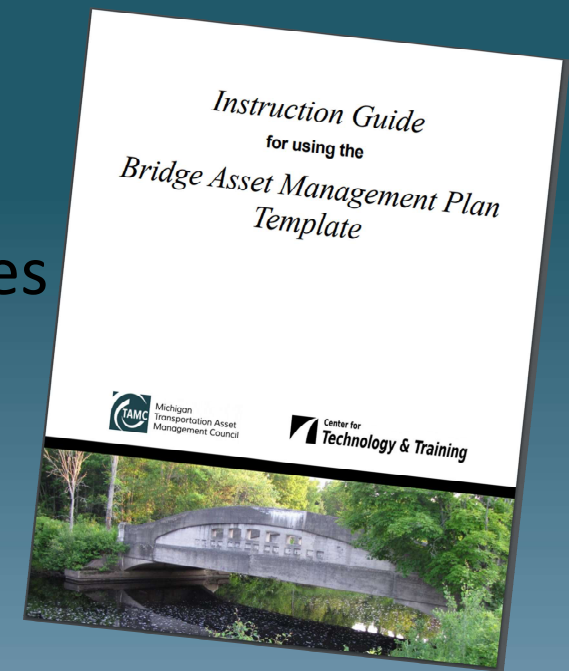
Asset Management Plan: Act 51 Mandate

- 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

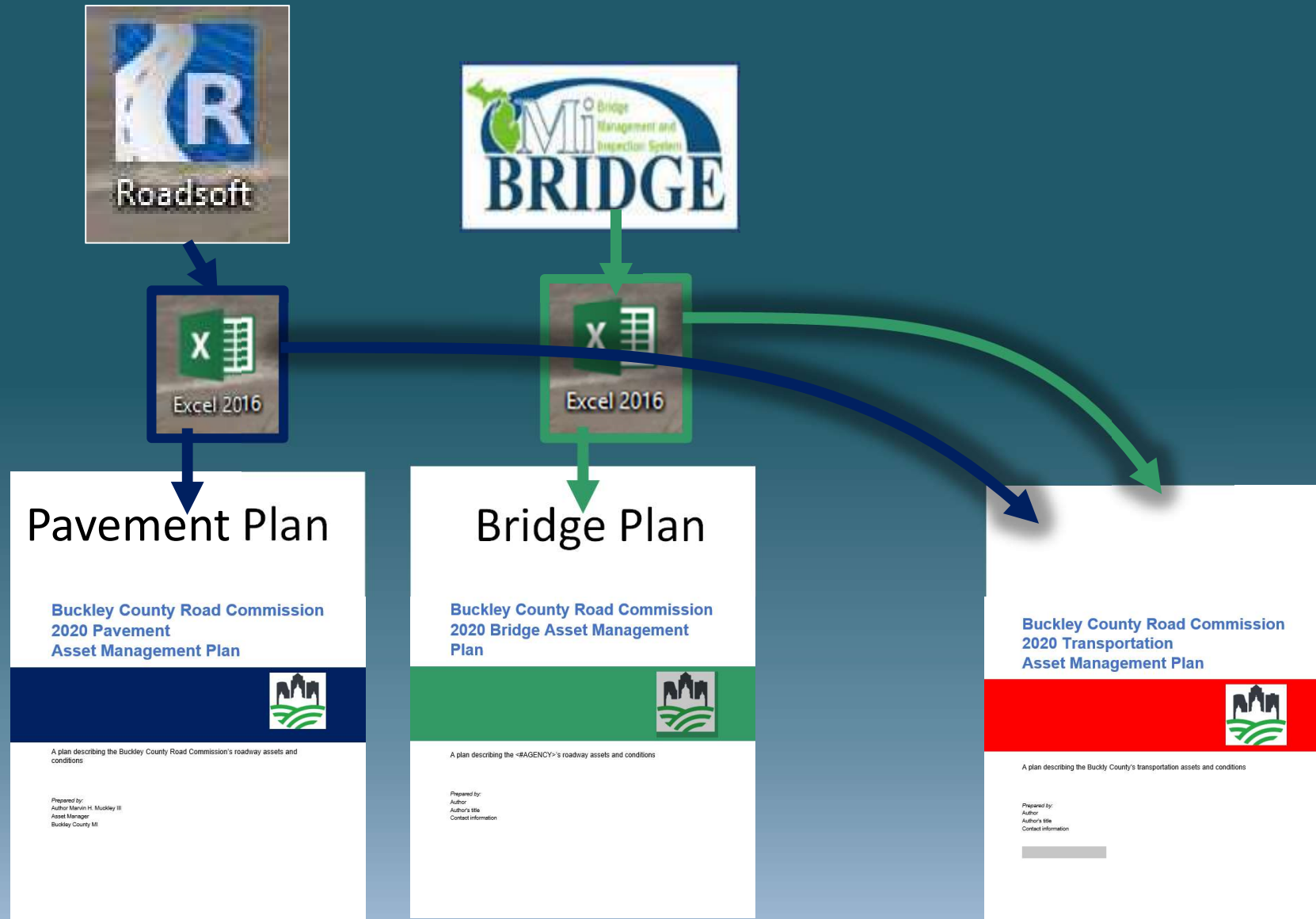


TAMP Template Required Elements

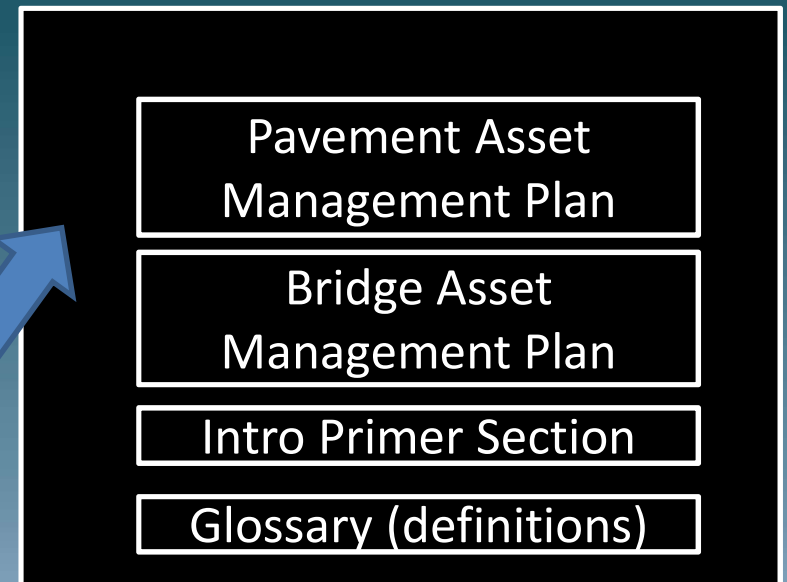
1. Asset Inventory
2. Performance Goals
3. Risk of Failure Analysis - NEW
4. Anticipated Revenue and Expenditures
5. Performance Outcomes
6. Coordination Clause - NEW
7. Proof of Adoption by Governing



TAMC TAMP Template



Compliance Plan



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

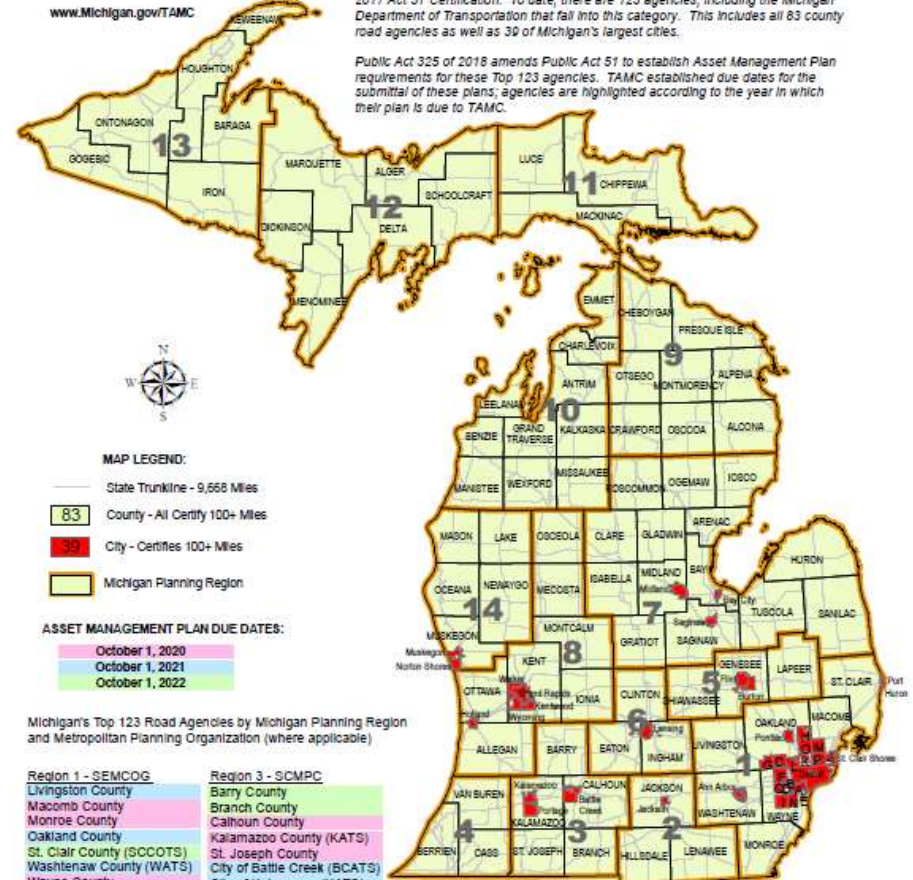


www.Michigan.gov/TAMC

Michigan's Top 123 Road Agencies

Map indicates jurisdictions that certify 100 miles of roadways or more as part of their 2017 Act 51 Certification. To date, there are 123 agencies, including the Michigan Department of Transportation that fall into this category. This includes all 83 county road agencies as well as 39 of Michigan's largest cities.

Public Act 325 of 2018 amends Public Act 51 to establish Asset Management Plan requirements for these Top 123 agencies. TAMC established due dates for the submittal of these plans; agencies are highlighted according to the year in which their plan is due to TAMC.



The Michigan Department of Transportation owns trunkline facilities within every Planning Region and Metropolitan Planning Organization boundary in Michigan. The Federal Highway Administration establishes requirements and timeframes for Asset Management Plans for State Transportation Departments.

Resources



Website:

www.Michigan.gov/TAMC



TAMC Help Desk:

(517) 335-3741



Roger Belknap, MDOT, TAMC
Coordinator



(517) 230-8192

belknapr@michigan.gov

Questions?



County Road Association
OF MICHIGAN



michigan municipal league



Michigan
Transportation Asset
Management Council

