Adopted by TAMC
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2024-2025-2026

Strategic Work Program

Michigan Transportation Asset Management Council
Transportation Asset Management Council (TAMC) (michigan.gov)

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Overview

The Transportation Asset Management Council (TAMC) 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. TAMC's activities include surveying and reporting the condition of roads, bridges, and surface transportation system by functional classification categories and assessing completed and planned investments in roads and bridges. TAMC also supports the development of appropriate asset management methodologies and provides education and training on the benefits of developing road improvement programs using asset management principles and procedures. A key component for the TAMC is providing value for the transportation agencies in the training/education, data that is collected and analysis.

TAMC is comprised of professionals from county road agencies, cities, township officials, regional and metropolitan planning organizations, and state transportation department personnel. The TAMC reports directly to the Michigan Infrastructure Council (MIC) and is a resource for the State Transportation Commission (STP) and the Michigan Legislature. Members of the TAMC are appointed to 3-year terms. The Center for Shared Solutions (CSS) is the Central Data Storage Agency (CDSA) of TAMC and serves as a non-voting member. The activities of TAMC are supported by the TAMC Coordinator and Michigan Department of Transportation (MDOT).

Vision: A national leader, promoting asset management principles and practices, to inform investment decisions among Michigan's transportation agencies

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

1. Advising the legislature, the State Transportation Commission, the Michigan Infrastructure Council, transportation committees, and others
2. Promoting asset management principles and innovation
3. Providing tools and practices for road agencies
4. Collaborate and coordinate with Water Asset Management Council and other asset owners

Purpose

The purpose of this work program is to provide guidance on the strategies, financial and tactical tasks associated with carrying out the TAMC program as required under Michigan law. The

work program also provides tactical objectives directing the various committees, contractors, support staff and program partners for the timeframe of 2024 - 2026.

TAMC Legislation and Public Act 51

TAMC was formed under Public Act (PA) 499 of 2002 followed by several amendments, including PA 338 of 2006; PA 199 of 2007; PA 257 of 2010; PA 298 and PA 506 of 2012; PA 323 and PA 325 of 2018; and PA 152, PA 153 and PA 164 of 2020. PA 499 of 2002 established TAMC as an organization with membership and staffing within MDOT and created the responsibility to prepare an annual report detailing its activities during the previous year and plans for upcoming years. Initially, under PA 499 TAMC was accountable to the STC; in 2018 this changed under PA 323, where the Michigan Infrastructure Council would have oversight responsibility of TAMC as well as the Water Asset Management Council (WAMC).

The TAMC's current list of statutory responsibilities includes:

- Advising the MIC on a statewide asset management strategy (Michigan Compiled Law (MCL) 247.659a(3));
- Advising the MIC on the processes and necessary tools needed to implement asset management strategies on a statewide basis, beginning with the federal-aid eligible highway system and infrastructure assets that impact system performance, safety, or risk management, including signals and culverts. (MCL 247.659a(3));
- TAMC, in conjunction with the department, counties, and municipalities, shall develop and implement a pavement management system for each mile of roadway on the Federal-Aid eligible highway system in Michigan. This pavement management system shall attempt to ensure that a disproportionate share of pavement shall not become due for replacement or major repair at the same time. TAMC shall provide local road agencies with the training needed to utilize the pavement management system in accordance with this section. (MCL 247.651g);
- Allowing road agencies in the state to link to the TAMC dashboards to improve government transparency as it relates to transportation infrastructure (MCL 247.668j(3c));
- TAMC is also permitted, under the act, to appoint technical advisory committee whose members shall serve as needed to provide research on issues and projects as determined by TAMC (MCL 247.659a(7));
- TAMC shall promote and oversee the implementation of recommendations from the regional infrastructure asset management pilot program on a statewide level as the program relates to roads, bridges, and related transportation infrastructure (MCL 247.659a(9));
- TAMC shall develop a template for an asset management plan for use by local road agencies responsible for 100 or more certified miles of road and require its submission to the TAMC (MCL 247.659a(10));

- TAMC shall establish a schedule for the submission of asset management plans by local road agencies (MCL 247.659a(10));
- TAMC shall review asset management plans submitted no later than 6 months after receipt of the asset management plan and compare the asset management plan to the minimum requirements and the template created by TAMC and determine whether the asset management plan is in compliance with those standards. If the asset management plan does not meet those standards, TAMC shall seek concurrence from MDOT that the asset management plan does not meet the TAMC standard. If MDOT concurs, TAMC shall require the local road agency to revise its asset management plan to conform to the standards within 6 months after notifying the local road agency that the asset management plan does not meet the TAMC standard. TAMC shall provide an opportunity for a noncompliant local road agency to discuss the reasons the local road agency's plan is not in compliance and ways for the local road agency to become compliant (MCL 247.659a(13));
- Beginning October 1, 2025, if TAMC, and MDOT concurs, that a local road agency has not demonstrated progress toward achieving the condition goals described in its asset management plan for its Federal-Aid eligible County Primary Road System or City Major Street System, TAMC shall provide notice to the local road agency of the reasons that it has determined progress is not being made and recommendations on how to make progress toward the local road agency's condition goals. The local road agency shall become compliant within 6 months after receiving the notification required by this subsection. TAMC shall provide an opportunity for the noncompliant local road agency to appear before TAMC to discuss the reasons the local road agency is not compliant and ways for the local road agency to become compliant. If the local road agency is not compliant within 6 months after receiving required notification, the local road agency shall not shift funds distributed to it under this act from a County Primary Road System to a County Local Road System or from a City Major Street System to a City Local Street System, as applicable. Upon demonstration of progress toward achieving its condition goals, a local road agency may shift funds distributed to it under this act from a County Primary Road System to a County Local Road System or from a City Major Street System to a City Local Street System, as applicable. A local road agency may submit a revised asset management plan to TAMC (MCL 247.659a(14));
- TAMC shall submit this report to the Michigan Infrastructure Council, the State Transportation Commission, the legislature, and the transportation committees of the Michigan House and Michigan Senate by May 2 of each year. (MCL 247.659a(15)).

TAMC also plays a variety of roles that support and promote the asset management process. These roles include:

- Communication conduits to and from the constituent organizations, ensuring that the needs and concerns of the various stakeholder organizations are aired during TAMC deliberations, and that TAMC decisions and policies are then shared with,

and when necessary, discussed with those same organizations.

- Ensuring that certain activities prescribed in the authorizing legislation are completed in accordance with that legislation (MCL 247.659a).
- Ensuring that any additional activities undertaken by the TAMC are completed within the timeframe and budget established by the TAMC, and accordance with the overall intent of the authorizing legislation.

Appendix B contains legislation related to TAMC as amended into MCL.

Appropriation & Budget

Once established in MCL in 2002, TAMC was provided an appropriation of $1,626,400 from the Michigan Transportation Fund (MTF). This amount remained consistent until 2017 when TAMC made a request for an additional $250,000. The State of Michigan's Fiscal Year (FY) budgets of 2018 through 2021 provided $1,876,400 to TAMC. The FY2024 TAMC budget will be based upon $1,876,400 for revenues; the budget level may need adjustment in the three years of this Strategic Work Program.

Program Area	FY24	FY25	FY26	3-Year Total
I. Data Collection & Regional-Metro Asset Management Program	$1,116,400	To be determined	To be determined	To be determined
II. Central Data Agency	$374,950	To be determined	To be determined	To be determined
III. Training & Education Program (MTU-CTT)	$210,658	To be determined	To be determined	To be determined
IV. Activities & Studies	$128,425	To be determined	To be determined	To be determined
V. TAMC Conferences Printing Expenses	$40,000	$40,000	$40,000	$120,000
VI. Special Projects	$322,321	To be determined	To be determined	To be determined
Total	$2,192,754.00			

Special Projects

In January of 2018, an additional appropriation of $2,000,000 was provided to TAMC out of the State of Michigan's Infrastructure Fund. Under House Bill 4320 (S-3), this supplemental appropriation was given to TAMC for the purpose creating a pilot project for the collection of inventory data and the evaluation of culverts owned by local transportation agencies within Michigan. Although this appropriation was a one-time grant for TAMC and has not been renewed in subsequent budgets. Reimbursements through this program ended September 30, 2023. A TAMC Dashboard was created for this information including a pilot project and can be found here.

Appendix D contains TAMC Financial & Budget Reporting.

Organizational Structure

The TAMC was created to promote asset management principles and the asset management process, and the legislation designates that TAMC members are appointed by various public stakeholder organizations within the transportation community. This requires a series of well-orchestrated and coordinated efforts, carried out by a multitude of actors and organizations in both a formal and informal manner. What follows is a high-level description of the formal entities that have roles and responsibilities for administration of the TAMC, the TAMC Work Program, the various technical and contractual assistance provision and ongoing operational support staff required to perform TAMC's statutory reporting and various defined and undefined roles. These descriptions are intended to be summaries and are not an exhaustive reporting of all aspects of TAMC coordination*. For more information please see Appendix C or click here for the TAMC Bylaws*

TAMC - Council

From the formal legislation that created TAMC and responsibilities it charged TAMC with completing, it can be inferred that TAMC members are expected to attend and participate in meetings of the organization, to chair and/or serve on at least one committee and/or subcommittees of the organization, and such other responsibilities as are assigned and necessary for the organization to achieve its goals (by-laws). TAMC and committee chairs are expected to work with the TAMC support staff to prepare agendas for their meetings and to arrange for speakers, exhibits, and/or presentations on topics of interest to the committee or TAMC.

MCL defines the council representation and partner organizational membership. Currently, TAMC shall consist of 10 voting members approved by the MIC. The council shall include 2 members from the County Road Association, 2 members from the Michigan Municipal League, 2 members from the state planning and development regions, 1 member from the Michigan Townships Association, 1 member from the Michigan Association of Counties, and 2 members from the department (MDOT). Nonvoting members shall include 1 person from the Central Data Storage Agency (CDSA), or office selected as the location for central data storage.

It is the responsibility of each member organization to seek out qualified individuals for nomination to the TAMC. Once the nomination is received, it must be acted upon by the MIC. The position of the CDSA shall be nonvoting and shall be for as long as the agency continues to serve as the data storage repository. All terms for TAMC members shall be for 3 years, except for the MDOT and central data storage agency representatives.

The chairperson shall be selected from among the voting members of the council. All voting members of the TAMC are eligible to be Chairperson or Vice- chairperson of the TAMC. The Chairperson and Vice-chairperson's Terms of Office shall be three years. Officers may be reelected to additional terms by the TAMC. Terms may be consecutive. Elections for Chairperson and Vice-chairperson of the TAMC shall be held during the September TAMC meeting in the last year of the 3-year term or as needed to fill a vacant officer position. Election shall be by a majority vote of the attending voting TAMC members during a regular TAMC meeting where a quorum is present. It is the responsibility of the Chairperson to chair

monthly meetings, publicly represent the TAMC and speak on its behalf. It is the responsibility of the Vice-chairperson to perform these duties in the absence of the Chairperson. If the

Chairperson or Vice-chairperson fails to meet this responsibility, the voting membership of TAMC may dismiss the Chairperson or Vice-chairperson by majority vote.

TAMC- Committees

At a minimum, each voting member shall serve on one TAMC Committee. The TAMC Chairperson shall select TAMC members for each committee. Member assignments may be reviewed and changed by the TAMC Chairperson as necessary during the Chairperson's term of office. Each committee of the TAMC shall have a Chairperson and a Vice-chairperson selected by majority vote of the voting membership of each Committee. Each committee Chairperson and Vice-chairperson shall serve a 3-year term. In the absence of the committee Chairperson, the committee Vice-chairperson shall manage the committee meetings. Any committee may include for support, technical, or other reasons; non-TAMC members as non-voting advisory participants in the committees.

The TAMC has three permanent committees as follows:

1. Administrative, Communications and Education (ACE Committee): Committee comprised of 3 to 5 TAMC members that advises the TAMC on matters pertaining to training, communications, education program and budget.
2. Data Committee: Committee comprised of 3 to 5 TAMC members that advises the TAMC on matters pertaining to data collection, quality, and analysis.
3. Bridge Committee: Committee comprised of 3 to 5 TAMC members that advise the TAMC on matters pertaining to application of asset management principles to bridges and the creation of guidance materials and training program.

The TAMC or the TAMC Chairperson may establish other 'ad hoc' committees as necessary for the operation of the TAMC. Such committees shall operate until the TAMC or TAMC Chairperson disbands them.
Appendix C contains the TAMC Bylaws; Appendix E includes the TAMC Member Roster, representative organizations, terms of service and committee assignments.

Administrative Staff

In addition to having two seats on TAMC, MDOT is also directed to provide qualified administrative staff to support the TAMC's functioning. There are a multitude of tasks that are included in the coordination of the TAMC program. At a high level, this includes managing the TAMC work program, providing TAMC with regular updates on progress of the program and assisting in the periodic creation of new work programs and ensuring that TAMC is fulfilling statutory obligations as defined in legislation and compiled law.

Operationally, support also includes preparations with TAMC Chairperson and Committee Chairpersons for preparations for meeting agendas, scheduling, ensuring compliance with the Open Meetings Act, budgetary, contracting and accounting functions and coordinating TAMC communications with partner agencies, contracting entities as well as the general public. TAMC support staff also coordinate and manage the logistics and facility contracts for conferences,

meetings and various other ad-hoc and routine activities. Support staff also ensure adherence to State of Michigan requirements and regulations pertaining to lodging, meals and travel reimbursements for TAMC members, partner organizations and local agency participants.

MDOT also participates in the annual Federal-Aid data collection effort by providing vehicles, data collection tools, and coordination with the respective Regional Planning Agency and Metropolitan Planning Organization (RPA/MPO) and local agencies to schedule and collect data.

Lastly, TAMC policy, MDOT contractual guidelines and PA 51 regulation establishes a series of compliance requirements that TAMC contractors and local agencies are subject to follow. Support staff provided by MDOT have the responsibility to ensure compliance with these PA 51 requirements. This includes reporting of the status of compliance for reporting requirements on an ongoing basis as well as act Program Manager with oversight of technical assistance, training, and work program contracts with the CDSA, RPA/MPO contracts and the contracts for training, technical assistance and TAMC-sponsored conferences, meetings and workshops.

CDSA

In addition to having one non-voting seat on TAMC, the CDSA is also responsible for providing a secure data storage facility, ensuring that the data is accessible to the TAMC, the 617 transportation agencies in the state, the 14 regional planning agencies, metropolitan planning organizations and to the greater public. The CDSA is also responsible for the coordination of any activities contracted for with TAMC such as the development, operation and maintenance of TAMC's Investment Reporting Tool (IRT), TAMC's interactive performance dashboards, interactive maps and website. Currently, the CDSA designation for TAMC is the Michigan Department of Technology, Management and Budget's (DTMB) Center for Shared Solutions (CSS).

Appendix F contains the FY2024 TAMC Work Plan for CSS and guidance document on roles and responsibilities for CSS and MDOT.

Technical Assistance – RPA/MPO

In addition to MDOT support staff, the TAMC annually contracts with Michigan's Regional Planning Agencies and Metropolitan Planning Organizations (RPA/MPO) to provide technical assistance related to the promotion of asset management principles, roadway inventory and condition data collection and other activities within each regional boundary. The TAMC Budget contains annual allocations to the RPA/MPO, and MDOT support staff coordinates and administers the Unified Work Program for asset management. At a high level, RPA/MPO allocations provide funding for training, equipment and data collection expenses incurred by planning staff as well as local agencies that participate in TAMC program activities. RPA/MPO work programs also include provision of technical support to local agencies for asset management plan development, data sharing and assistance with compliance with TAMC and Public Act 51 reporting requirements.

Appendix J contains the Unified Work Program for RPA/MPO; Appendix D is the TAMC Budget

which includes allocations to each of the RPA/MPO contracts involved with TAMC's program.

Technical Assistance – Michigan Technological University (MTU) Center for Technology & Training (CTT)

As part of its function to provide staff support for TAMC, MDOT has contracted with Michigan Technological University's Center for Technology and Training (CTT) to develop and administer a training program that has the principal components to meet the needs of TAMC's audience as well as prepare participants and certify their competence to perform annual data collection activities. Due to its expertise in managing registrations for the variety of training programs hosted by CTT, MTU also has the roles of registering participants in the TAMC spring and fall conferences, managing the audio/visual tech for the conferences, and collecting and analyzing the feedback from conference participants.

MTU is the creator of the Roadsoft software that was selected by TAMC as the preferred data collection tool for PASER ratings. As the owner of the software, MTU is also responsible for training in the use of Roadsoft, tech support for any issues associated with Roadsoft, coordinating with CSS for the efficient and accurate collection and transfer of TAMC data from Roadsoft to CSS's database, developing new tools that speed and simplify the collection of TAMC data or other data of use by transportation agencies, as well as perform annual updates of the Roadsoft software.

CTT also functions as a technical advisor to TAMC providing insights into current research practices in the field of asset management, and providing explorative, applied research activities to meet the needs of TAMC programs. This includes providing technical briefings, pilot studies or professional opinion when requested.

Appendix G contains the 2024 Education Work Plan, Appendix H contains the 2024 Technical Assistance Activities Work Plan.

TAMC Goals & Objectives 2022-2024

Strategic Sessions

A Strategic Planning Session was held on May 3, 2023 to review the program's goals and priorities. During this meeting there was a focus on how the council could utilize data collected to help inform other agencies, groups, or organizations. Also, there was a focus on the additional assets that could be inventoried in the future including signals and the non-federal aid road network. See Appendix K for minutes taken from this meeting. TAMC is committed to reviewing priorities, relevant changes in legislation and changes in the transportation landscape. To this end, TAMC will review and update the Work Program on an annual basis. The below list of goals and objectives was adopted by the council on August 2, 2023.

TAMC Priorities

PA 499 of 2002 created TAMC and established the structure and organizational membership. Additional legislation thereafter increased reporting requirements for local agencies as well as TAMC. TAMC has monitored these changes and has responded with Strategic Work Program updates and priorities to continue progress of the statewide asset management strategy, incorporating updates in technology, industry standards, and changes in public policy and demands for service.

TAMC Full Council

Goal 1: **Promote the principles of asset management statewide to enhance the productivity of investment in Michigan's roads and bridges through coordination and collaboration among state and local transportation agencies; TAMC will promote and communicate this statewide strategy with the legislature, Michigan Infrastructure Council, State Transportation Commission, and other transportation committees.**

Objectives

1. Analyzing completed and planned investments in roads and bridges
2. Supporting the development of appropriate asset management methodologies and innovations.
3. Providing education and training on the benefits of asset management principles and procedures.
4. Create a statewide strategy built on the basis of a mix of fixes and coordinate with partner agencies.
5. Coordinate education and communication activities with the MIC and Water Asset Management Council (WAMC).
6. Share information around the world on asset management practices.
7. Create a Governance Document for Promoting Workflow and Coordination of the TAMC.

Goal 2: **Coordination of asset management with Michigan Infrastructure Council and Water Asset Management Council and other partner organizations such as MDOT, County Road Association (CRA), Michigan Municipal League (MML), Michigan Association of Regions (MAR), Michigan Transportation Planning Association (MTPA), Michigan Association of Counties (MAC) and the Michigan Township Association (MTA).**

Objectives

1. Develop coordinated approach to condition assessment and other areas when applicable.
2. Communicate with MIC and WAMC on transparency and what needs to be coordinated.
3. Attend and monitor MIC meetings.
4. Attendance and participation at WAMC meetings.
5. Participate in MIC/WAMC/TAMC X-Council (cross council).
6. Support TAMC partner agencies at various trainings, conferences, and workshops.
7. Define the process to seek procurement of TAMC assistance from outside vendors or consultants for coordinated activities.

TAMC Committee Priorities

The following goals and objectives are the result of TAMC's engagement of current and ongoing activities at the committee level and were approved at the August 2, 2023 TAMC meeting. Many of these objectives have been directed to the appropriate committee by TAMC.

ACE COMMITTEE

Goal 1: **Provide fiscal and budgetary accountability for TAMC's budget appropriation as well as all other supplemental appropriations, funding grants and financial resources.**

Objectives

1. Develop an annual budget categorized by work program activity, regional allocations for technical assistance and data collection, Central Data Storage Agency operations, contractual funding for technical assistance and activity support as well as TAMC-specific activities.
2. Create a consistent timeline for TAMC which includes budget submissions and needs to the Michigan Department of Transportation (MDOT).
3. Create a draft three-year budget plan to match the work program goals.
4. Review and define allocation to our regional partners across the State of Michigan.

Goal 2: **Evaluate transportation asset management plan (TAMP) submissions and make recommendations regarding compliance.**

Objectives

1. Review and report monthly on the number and compliance status of local agency submittal of asset management plans.
2. Identify technology that may expedite data collection for PA 325 requirements, including the TAMC (IRT) application.
3. Discuss how other infrastructure assets will be considered for future data collection and asset management plan inclusion.
4. Conduct a survey for regions and MPO's to assess the level of funding received and if it is adequate to meet requirements. Assess additional activities required and funding needed.

Goal 3: Increase awareness and improve familiarity with TAMC annual report.

Objectives

1. Coordinate press releases and report cover letters in a well-orchestrated manner to ensure maximum exposure and accessibility of TAMC members and support staff.

Goal 4: Raise awareness of asset management principles; promote outstanding agency performance in the area of asset management.

Objectives

1. Establish an annual schedule and develop articles each year for the Local Technical Assistance Program's *The Bridge* Newsletter.
2. Seek nominations and highlight best practices of organizations and individuals through the TAMC Awards program; develop scoring matrices evaluate and update selection process of award recipients.
3. Coordinate a minimum of one educational conference per year; incorporate "best practice case- studies" into educational sessions for high-performing agencies to advocate their learning and methods; provide formal presentation of TAMC Award recipients at conferences and in conference materials.
4. Distribute press releases outlining TAMC Awards program recipients.
5. Explore social media platforms.
6. Pilot two 90-second videos: on TAMC; how to start the process of maintaining assets.
7. Develop approach to educate or promote asset management principles to the public and private sector organizations.

Goal 5: Ensure TAMC's training programs and policies are appropriate and optimized for ongoing support of TAMC's data collection and reporting requirements; ensure these programs and policies are well-communicated among partnering agencies and participants.

Objectives

1. Continue review and update of TAMC Policy for the Collection of Roadway Surface Condition Data to accommodate technological updates, appropriateness of training certification for qualifying participants and in response to changing or challenging

trends in technology or industry needs.

2. Provide regularly scheduled Regional Coordinator conference calls from April through December each year for communicating TAMC policies, announcements, training opportunities and provide forum for participants to raise issues and respond to inquiries.
3. Update and maintain TAMC website, TAMC brochure and TAMC training resources as appropriate to incorporate changes in legislation, reporting requirements, TAMC policy and procedures as well as technological advancements.
4. Create a decision tree/policy which can be utilized to determine when a request for work from the Central Data Storage Agency or other technical supporting staff can be approved at the committee level.
5. Create a training program for traffic signals, and/or other infrastructure assets.

Areas of further investigation:

- TAMC Conferences
- More collaboration and support by TAMC partner organizations would be appreciated to keep the program fresh and relevant, more involvement across state/nation/world.
- TAMC Bylaws & Committee Structure
- Explore and discuss role and procedures of technical experts for TAMC committees.
- TAMP Policy and support staff interactions/transparency with MDOT Act 51 staff in support of Small and Medium sized agencies.
- Determine level of involvement, review, insight for Non-Public Act 325 asset management plans submitted into the TAMC Investment Reporting Tool.
- Determine if the TAMC IRT can be used for submittal of all asset management plans regardless of agency size and requirements.
- Increase Non-Federal Aid data collection and transparency/outreach.

BRIDGE COMMITTEE

Goal 1: **Ensure TAMC's transportation asset management plan template, policies and training programs are appropriate and optimized for ongoing support of TAMC's bridge data collection and reporting requirements; ensure these programs and policies are well- communicated among partnering agencies and participants.**

Objectives

1. Continue review and update of TAMC Policy for the Collection of Bridge Condition Data to reflect changes in NBIS/SNBI. Develop TAMC Implementation Plan for NBIS/SNBI update once impacts and timelines have been identified.
2. Work with TAMC to ensure TAMC Dashboards and Interactive Map applications are compatible with data structure and reporting standards of the Michigan Bridge Inventory System.

3. Continue to review submitted transportation asset management plans and TAMC asset management plan template for consistency with Federal and State industry standards and findings from previous transportation asset management plan submittals.

Goal 2: **Continue progress of roadway culvert asset management integration building upon lessons learned from 2018 TAMC Local Agency Culvert Inventory Pilot project as well as culvert data collection efforts performed by Michigan Department of Transportation, other transportation agencies and other stakeholder organizations including Water Asset Management Council, Michigan Department of Environment, Great Lakes and Energy and Michigan Department of Natural Resources.**

Objectives

1. Develop culvert performance metrics for local agency reporting and integration into asset management plans and TAMC technological reporting.
2. Review other agency's culvert information which can be incorporated into inventory for reduction in duplication of effort among Michigan Department of Environment, Great Lakes and Energy and Michigan Department of Natural Resources and Drain Commissioners, etc.

DATA COMMITTEE

Goal 1: **Ensure TAMC's training programs, policies and technological applications are appropriate, current with most recent data and optimized for continuation of TAMC's Federal Aid, Non-Federal Aid, and Inventory-Based Rating System data collection efforts; TAMC will continue collecting no less than ½ of Federal-Aid eligible system annually**.

Objectives

1. Continue review and update of TAMC Policy for the Collection of Roadway Surface Condition Data to accommodate technological updates.
2. Ensure Framework Base Map, Roadsoft and TAMC Investment Reporting Tool applications are compatible and up-to-date to accept pavement condition data.
3. Develop data for costs-per-mile of data collection.
4. Ensure TAMC's Dashboards, Interactive Map, and Investment Reporting Tool applications are updated routinely with the latest available data sets.
5. Identify opportunities to provide technical support and data collection resources for Michigan's smallest road-owning agencies.

Goal 2: **Ensure TAMC's training programs and Investment Reporting Tool applications are appropriate and optimized for continuation of the annual investment reporting requirements as part of Act 51.**

Objectives

1. Ensure Roadsoft, MDOT's Act 51 Distribution and Reporting System and TAMC Investment Reporting Tool (IRT) applications are compatible and up to date.
2. Monitor Investment Reporting Tool compliance and report compliance status on a monthly basis.
3. Update Average Project Cost data by improvement category on an annual basis.
4. Compare pavement condition data and IRT planned road project data.
5. Develop an understanding of roadway asset deterioration.
6. Develop means to upload 3-year capital project data into the Investment Reporting Tool from electronic State Transportation Improvement Program and RPA/MPO Transportation Improvement Programs.
7. Develop condition forecasting tool that uses Investment Reporting Tool planned project data.
8. Incorporate pavement warranty data fields into Investment Reporting Tool for ongoing reporting and compliance.
9. Develop a post plan self-assessment for agencies to determine their progress towards their goals.
10. Review and report on data relating to the mix of fixes agencies are choosing and their costs to improve accuracy of data and reporting.

Goal 3: **Develop traffic signal asset management integration building upon guidance from traffic signal subject matter experts at MDOT and other local transportation agencies.**

Objectives

1. Develop data governance and standards for traffic signals.
2. Develop traffic signal performance metrics for local agency reporting and integration into asset management plans and TAMC technological reporting.
3. Establish TAMC Policy for the Collection of Traffic Signal Data to provide guidance and directives for ongoing inventory updates and data integration procedures.
4. Provide tools and training for the ongoing collection of traffic signal inventories and condition assessments.
5. Incorporate traffic signal inventory data into TAMC Dashboards and Interactive Map applications.

Areas of further investigation:

- Additional Dashboards for Investment Reporting Data.
- Providing Geographic layers of TAMC Data for download.

APPENDICES

ACRONYM GUIDE	
ACE	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)
ACT-51	PUBLIC ACT 51 OF 1951 - DEFINITION: A CLASSIFICATION SYTEM DESIGNED TO DISTRIBUTE MICHIGAN'S TRANSPORTATION FUNDS.
ADARS	ACT 51 DISTRIBUTION AND REPORTING SYSTEM
CDSA	CENTAL DATA STORAGE AGENCY (CURRENTLY CSS)
CRA	COUNTY ROAD ASSOCIATION (OF MICHIGAN)
CSD	CONTRACT SERVICES DIVISION (MDOT)
CSS	CENTER FOR SHARED SOLUTIONS (DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET, STATE OF MICHIGAN)
CTT	CENTER FOR TECHNOLOGY & TRAINING (MICHIGAN TECHNOLOGICAL UNIVERSITY)
DNR	DEPARTMENT OF NATURAL RESOURCES (STATE OF MICHIGAN)
DTMB	DEPARTMENT OF TECHNOLOGY, MANAGEMENT & BUDGET (STATE OF MICHIGAN)
EGLE	DEPARTMENT OF ENVIRONMENT, GREAT LAKES & ENERGY (STATE OF MICHIGAN)
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FOD	FINANCIAL OPERATIONS DIVISION (MDOT)
FY	FISCAL YEAR
IBR	INVENTORY-BASED RATING SYSTEM FOR UNPAVED ROADWAYS
IRT	INVESTMENT REPORTING TOOL APPLICATION
LDC	LAPTOP DATA COLLECTOR APPLICATION
LTAP	LOCAL TECHNICAL ASSISTANCE PROGRAM (MICHIGAN TECHNOLOGICAL UNIVERSITY)
MAC	MICHIGAN ASSOCIATION OF COUNTIES
MAR	MICHIGAN ASSOCIATION OF REGIONS
MCL	MICHIGAN COMPILED LAW
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
MIC	MICHIGAN INFRASTRUCTURE COUNCIL
MML	MICHIGAN MUNICIPAL LEAGUE
MPO	METROPOLITAN PLANNING ORGANIZATION
MTA	MICHIGAN TOWNSHIPS ASSOCIATION
MTF	MICHIGAN TRANSPORTATION FUNDS
MTPA	MICHIGAN TRANSPORTATION PLANNING ASSOCIATION
MTU	MICHIGAN TECHNOLOGICAL UNIVERSITY
NBI	NATIONAL BRIDGE INVENTORY
NBIS	NATIONAL BRIDGE INSPECTION STANDARDS
NFA	NON-FEDERAL AID
NFC	NATIONAL FUNCTIONAL CLASSIFICATION
NHS	NATIONAL HIGHWAY SYSTEM
PA	PUBLIC ACT
PASER	PAVEMENT SURFACE EVALUATION AND RATING
PNFA	PAVED NON-FEDERAL AID
QA/QC	QUALITY ASSURANCE/QUALITY CONTROL
RPA	REGIONAL PLANNING AGENCY
STC	STATE TRANSPORTATION COMMISSION
STIP	STATE TRANSPORTATION IMPROVEMENT PROGRAM
TAMC	TRANSPORTATION ASSET MANAGEMENT COUNCIL
TAMP	TRANSPORTATION ASSET MANAGEMENT PLAN
TIP	TRANSPORTATION IMPROVEMENT PROGRAM
UWP	UNIFIED WORK PROGRAM
WAMC	WATER ASSET MANAGEMENT COUNCIL
X-COUNCIL	CROSS COUNCIL COMMITTEE (MIC/TAMC/WAMC)

Public Act 51 & TAMC Related Legislation Links

All links below are provided by the State of Michigan Legislature's Michigan Bill Search application, as accessed on December 23, 2020. Public Act 51 of 1951 is the guiding legislation to all roads and highways funding and reporting requirements. The remainder of public acts related to TAMC are amendments to Public Act 51 of 1951 unless otherwise noted.

Public Act 51 of 1951 – State Trunk Line Highway System

Public Act 499 of 2002 – Creation of Transportation Asset Management Council

Public Act 338 of 2006

Public Act 199 of 2007

Public Act 257 of 2010

Public Act 298 of 2012

Public Act 506 of 2012

Public Act 323 of 2018 – Creation of Michigan Infrastructure Council

Public Act 324 of 2018 – Amendment to Public Act 451 of 1994 Natural Resources and Environmental Protection: Creation of Water Asset Management Council

Public Act 325 of 2018

Public Act 152 of 2020

Public Act 153 of 2020

Public Act 164 of 2020

Michigan Transportation Asset Management Council

Bylaws of the Michigan Transportation Asset Management Council

As Last Amended by TAMC on February 5, 2020.

1. Goal Statement: The Transportation Asset Management Council will develop and support excellence in managing Michigan's transportation assets by:
    a. Advising the legislature, the State Transportation Commission, the Michigan Infrastructure Council, transportation committees, and others.
    b. Promoting asset management principles.
    c. Providing tools and practices for road agencies.
    d. Collaborate and coordinate with Water Asset Management Council and other asset owners.

2. Membership, Chairperson, and Committees:
    a. Membership: The Transportation Asset Management Council shall consist of ten (10) voting members appointed by the State Transportation Commission. The council shall include two (2) members from the County Road Association of Michigan, two (2) members from the Michigan Municipal League, two (2) members from the state planning and development regions, one (1) member from the Michigan Townships Association, one (1) member from the Michigan Association of Counties, and two (2) members from the Michigan Department of Transportation. Nonvoting members shall include one (1) person from the agency or office selected as the location for central data storage.
    b. Chairperson and Vice-chairperson: The Chairperson shall be selected from among the voting members of the Transportation Asset Management Council.
        1. Eligibility: All voting members of the Transportation Asset Management Council are eligible to be Chairperson or Vice-chairperson of the Transportation Asset Management Council.
        2. Term of Office: The Chairperson and Vice-chairperson's Terms of Office shall be three (3) years. Officers may be reelected to additional terms by the Transportation Asset Management Council; terms may be consecutive.
        3. Election of Officers: Elections for Chairperson and Vice-chairperson of the Transportation Asset Management Council shall be held during the September meeting in the last year of the three (3) year term or as needed to fill a vacant officer position. Election shall be by a majority vote of the attending voting Transportation Asset Management Council members during a regular Transportation Asset Management Council meeting where a quorum is present.
        4. Responsibility and Dismissal: It is the responsibility of the Chairperson to chair monthly meetings, publicly represent the Transportation Asset Management Council and speak on its behalf. It is the responsibility of the Vice-chairperson to perform these duties in the absence of the Chairperson. If the Chairperson or Vice-chairperson fails to meet this responsibility, the voting membership of Transportation Asset Management Council may dismiss the Chairperson or Vice-chairperson by majority vote.
    c. Committees: At a minimum, each voting member shall serve on one (1) Transportation Asset Management Council Committee. The Chairperson shall select Transportation Asset

Management Council members for each committee at the beginning of the Chairperson's term of office. Member assignments may be reviewed and changed by the Chairperson as necessary during the Chairperson's term of office. Each committee of the Transportation Asset Management Council shall have a Chairperson and a Vice-chairperson selected by majority vote of the voting membership of each Committee. Each committee Chairperson and Vice-chairperson shall serve a three (3) year term. In the absence of the committee Chairperson, the committee Vice-chairperson shall manage the committee meetings. Any committee may include for support, technical, or other reasons; non-Transportation Asset Management Council members as non-voting advisory participants in the committees. The Transportation Asset Management Council has three permanent committees as follows:

1. Administrative, Communications and Education: Committee comprised of three (3) to five (5) Transportation Asset Management Council members that advises the Transportation Asset Management Council on matters pertaining to training, communications, education and budget.
2. Data Committee: Committee comprised of three (3) to five (5) Transportation Asset Management Council members that advises the Transportation Asset Management Council on matters pertaining to data collection, quality, and analysis.
3. Bridge Committee: Committee comprised of three (3) to five (5) Transportation Asset Management Council members that advises the Transportation Asset Management Council on matters pertaining to application of asset management principles to bridges and the creation of guidance materials and training program.

d. Michigan Infrastructure Council and Water Asset Management Council: The Chairperson shall represent the Transportation Asset Management Council at regular meetings of the Michigan Infrastructure Council. In the absence of the Chairperson, the Vice-chairperson shall attend Michigan Infrastructure Council meetings. The Transportation Asset Management Council Chairperson and Vice-chairperson shall also represent the Transportation Asset Management Council on any standing coordination committees of the Michigan Infrastructure Council and Water Asset Management Council.
e. Other committees: The Chairperson may establish other 'ad hoc' committees as necessary for the operation of the Transportation Asset Management Council. Such committees shall operate until the Transportation Asset Management Council or Chairperson disbands them.

3. Meetings: Transportation Asset Management Council and committee meeting schedules are established at the September Transportation Asset Management Council Meeting for the following calendar year. The established schedules shall be made available to the public.

4. Quorum: per Michigan's Open Meetings Act, the term "Meeting" means "the convening of a public body at which a quorum is present for the purpose of deliberating toward or rendering a decision of a public policy." A quorum as it pertains to the Transportation Asset Management Council shall be defined as a majority of voting members present for a meeting during which official business is discussed and acted upon.

5. Membership Appointment and Term: it is the responsibility of each member organization to seek out qualified individuals for nomination to the Transportation Asset Management Council. Once the nomination is received, it must be acted upon by the State Transportation Commission. The positions for the Michigan Department of Transportation shall be permanent. The position of the central data storage agency shall be nonvoting and shall be for as long as the agency continues to serve as the data storage repository. At the end of the initial appointment, all terms shall be for

three (3) years.

6. Advisory Panel: The Transportation Asset Management Council may appoint a technical advisory panel whose members shall be representatives from the transportation construction associations and related transportation road interests. The Transportation Asset Management Council shall select members to the technical advisory panel from names submitted by the transportation construction associations and related transportation road interests. The technical advisory panel members shall be appointed for three (3) years. The Transportation Asset Management Council shall determine the research issues and assign projects to the technical advisory panel to assist in the development of statewide policies. The technical advisory panel's recommendations shall be advisory only and not binding on the Transportation Asset Management Council.

7. Staffing: The Michigan Department of Transportation shall provide qualified administrative staff and the state planning and development regions shall provide qualified technical assistance to the Transportation Asset Management Council.
    a. Michigan Department of Transportation assigns a full-time Coordinator primarily responsible for the management and coordination of the Transportation Asset Management Council's activities including development of the three (3) year work program, budget, and annual report as required by law; provide project management of activities needed to carry out the Transportation Asset Management Council's work program; manage the on-going development and maintenance of the Transportation Asset Management Council's website and performance measure dashboards. Additional Michigan Department of Transportation staff provides administrative support to the Transportation Asset Management Council as necessary.
    b. In addition to Michigan Department of Transportation staff, the Transportation Asset Management Council annually contracts with Michigan's Regional and Metropolitan Planning Organizations to provide technical assistance related to the promotion of asset management principles and data collection within each regional boundary.

8. Amendments: A two-thirds majority of Transportation Asset Management Council voting members is required to amend the Transportation Asset Management Council's bylaws. Proposed amendments in final form must be distributed to the members at the Transportation Asset Management Council meeting prior to having it on the Transportation Asset Management Council agenda as an action item.

TAMC Budget Financial Accounting: FY24-FY26

TAMC Budget Financial Accounting: FY21-FY23

11/30/2023

Michigan Transportation Asset Management Council

	FY21 Budget	FY21 Year to Date		FY22 Budget	FY22 Year to Date		FY23 Budget	FY23 Year to Date		
	Indicates Contract Completed			Indicates Contract Completed						
(most recent invoice)	$	Spent	Balance	$	Spent	Balance	$	Spent	Balance	
I. Data Collection & Regional-Metro Planning Asset Management Progam										
Battle Creek Area Transporation Study	$ 20,500.00	$ 16,884.50	$ 3,615.50	$ 20,500.00	$ 16,113.16	$ 4,386.84	$ 20,500.00	$ 15,615.51	$ 4,884.49	
Bay County Area Transportation Study	$ 19,900.00	$ 19,462.55	$ 437.45	$ 19,900.00	$ 17,520.26	$ 2,379.74	$ 19,900.00	$ 19,490.74	$ 409.26	
Central Upper Peninsula Planning and Development	$ 50,000.00	$ 50,000.00	$ -	$ 50,000.00	$ 50,001.00	$ (1.00)	$ 50,000.00	$ 50,000.00	$ -	
East Michigan Council of Governments	$ 108,000.00	$ 76,939.61	$ 31,060.39	$ 108,000.00	$ 75,670.47	$ 32,329.53	$ 108,000.00	$ 108,000.00	$ -	
Eastern Upper Peninsula Regional Planning & Devel.	$ 25,000.00	$ 25,000.00	$ -	$ 25,000.00	$ 25,000.00	$ -	$ 25,000.00	$ 25,000.00	$ -	
Genesee Lapeer Shiawasse Region V Planning Com.	$ 46,000.00	$ 46,000.00	$ -	$ 46,000.00	$ 33,332.45	$ 12,667.55	$ 46,000.00	$ 30,327.28	$ 15,672.72	
Grand Valley Metropolitan Council	$ 24,000.00	$ 23,864.31	$ 135.69	$ 24,000.00	$ 24,000.00	$ -	$ 24,000.00	$ 24,000.00	$ -	
Kalamazoo Area Transportation Study	$ 22,000.00	$ 21,997.16	$ 2.84	$ 22,000.00	$ 21,982.18	$ 17.82	$ 22,000.00	$ 19,909.28	$ 2,090.72	
Macatawa Area Coordinating Council	$ 19,000.00	$ 19,000.00	$ -	$ 19,000.00	$ 16,410.01	$ 2,589.99	$ 19,000.00	$ 15,132.47	$ 3,867.53	
Midland Area Transportation Study	$ 21,000.00	$ 21,000.00	$ -	$ 21,000.00	$ 20,286.91	$ 713.09	$ 21,000.00	$ 20,995.34	$ 4.66	
Northeast Michigan Council of Governments	$ 59,528.49	$ 59,528.49	$ -	$ 51,000.00	$ 51,000.00	$ -	$ 51,000.00	$ 51,611.49	$ (611.49)	
Networks Northwest	$ 75,000.00	$ 75,000.00	$ -	$ 75,000.00	$ 7,952.56	$ 67,047.44	$ 75,000.00	$ 75,000.00	$ -	
Region 2 Planning Commission	$ 40,000.00	$ 16,527.00	$ 23,473.00	$ 40,000.00	$ -	$ 40,000.00	$ 40,000.00	$ 14,378.59	$ 25,621.41	
Saginaw Area Transportation Agency	$ 38,342.21	$ 38,342.21	$ -	$ 21,000.00	$ 19,666.16	$ 1,333.84	$ 21,000.00	$ -	$ 21,000.00	
Southcentral Michigan Planning Commission	$ 55,000.00	$ 54,309.66	$ 690.34	$ 55,000.00	$ 20,094.89	$ 34,905.11	$ 55,000.00	$ 54,990.37	$ 9.63	
Southeast Michigan Council of Governments	$ 190,492.56	$ 190,492.56	$ -	$ 174,000.00	$ 174,000.00	$ -	$ 174,000.00	$ 174,000.00	$ -	
Southwest Michigan Planning Commission	$ 41,000.00	$ 37,820.83	$ 3,179.17	$ 41,000.00	$ 8,088.16	$ 32,911.84	$ 41,000.00	$ 23,182.78	$ 17,817.22	
Tri-County Regional Planning Commission	$ 40,000.00	$ 34,054.00	$ 5,946.00	$ 40,000.00	$ -	$ 40,000.00	$ 40,000.00	$ 39,999.82	$ 0.18	
West Michigan Regional Planning Commission	$ 88,000.00	$ 34,481.49	$ 53,518.51	$ 88,000.00	$ -	$ 88,000.00	$ 88,000.00	$ 35,797.24	$ 52,202.76	
West Michigan Shoreline Regional Development Com.	$ 54,000.00	$ 53,970.67	$ 29.33	$ 54,000.00	$ 53,906.46	$ 93.54	$ 54,000.00	$ 53,840.24	$ 159.76	
Western Upper Peninsula Regional Planning & Devel.	$ 42,000.00	$ 39,035.77	$ 2,964.23	$ 42,000.00	$ 9,380.47	$ 32,619.53	$ 42,000.00	$ 40,339.19	$ 1,660.81	
MDOT Region Participation & State Vehicle Use	$ 30,000.00	$ 27,001.73	$ 2,998.27	$ 30,000.00	$ 4,324.76	$ 25,675.24	$ 30,000.00	$ 28,771.06	$ 1,228.94	
PASER Quality Review Contract	$ 50,000.00	$ 13,190.44	$ 36,809.56	$ 50,000.00	$ 50,782.83	$ (782.83)	$ 50,000.00	$ 22,265.35	$ 27,734.65	
Data Collection & Regional-Metro Progam Total	**$ 1,158,763.26**	**$ 980,712.54**	**$ 178,050.72**	**$ 1,116,400.00**	**$ 648,729.90**	**$ 467,670.10**	**$ 1,116,400.00**	**$ 942,646.75**	**$ 173,753.25**	
III. TAMC Central Data Agency (MCSS)										Updated CSS 10/15/23
Project Management	$ 56,580.00	$ 45,844.73	$ 10,735.27	$ 65,093.00	$ 60,192.02	$ 4,900.98	$ 58,850.00	$ 48,489.70	$ 10,360.30	
Data Support /Hardware / Software	$ 25,870.00	$ 23,237.98	$ 2,632.02	$ 44,298.00	$ 44,298.00	$ -	$ 48,150.00	$ 33,134.39	$ 15,015.61	
Application Development / Maintenance / Testing	$ 171,250.00	$ 174,634.38	$ (3,384.38)	$ 202,880.00	$ 200,683.59	$ 2,196.41	$ 171,270.00	$ 252,641.30	$ (81,371.30)	
Help Desk / Misc Support / Coordination	$ 67,360.00	$ 98,289.56	$ (30,929.56)	$ 26,679.00	$ 36,801.85	$ (10,122.85)	$ 60,300.00	$ 21,051.28	$ 39,248.72	
Training	$ 16,170.00	$ 9,619.47	$ 6,550.53	$ 14,000.00	$ 12,408.61	$ 1,591.39	$ 14,980.00	$ 1,897.94	$ 13,082.06	
Data Access / Reporting	$ 37,720.00	$ 23,216.90	$ 14,503.10	$ 22,000.00	$ 20,932.60	$ 1,067.40	$ 21,400.00	$ 23,782.47	$ (2,382.47)	
TAMC Central Data Agency (MCSS) Total	**$ 374,950.00**	**$ 374,843.02**	**$ 106.98**	**$ 374,950.00**	**$ 375,316.67**	**$ (366.67)**	**$ 374,950.00**	**$ 380,997.08**	**$ (6,047.08)**	
IV. MTU Training & Education Program Contract	**$211,391.21**	**$ 165,599.61**	**$ 45,791.60**	**$210,658.15**	**$ 168,899.74**	**$ 41,758.41**	**$210,658.15**	**$ 152,886.19**	**$ 57,771.96**	
V. MTU Activities Program Contract	**$129,464.81**	**$ 55,085.04**	**$ 74,379.77**	**$128,424.93**	**$ 111,160.73**	**$ 17,264.20**	**$128,424.93**	**$ 71,739.14**	**$ 56,685.79**	
VI. TAMC Expenses										
Fall Conference Expenses	$ -	$ -	$ -	$ 10,000.00	$ 12,994.02	$ (2,994.02)	$ 10,000.00	$ 10,000.00	$ -	
Fall Conf. Attendence Fees + sponsorship Fees	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Fall Conference		$ -	$ -		$ -	$ -		$ -	$ -	
Spring Conference Expenses	$ 1,471.51	$ -	$ 1,471.51	$ 10,000.00	$ -	$ 10,000.00	$ 10,000.00	$ -	$ 10,000.00	
Spring Conf. Attendence Fees + sponsorship Fees	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Spring Conference		$ -	$ -		$ -	$ -		$ -	$ -	
Unallocated / Contingency	$ 20,000.00	$ -	$ 20,000.00	$ 10,000.00	$ -	$ 10,000.00	$ 10,000.00	$ -	$ 10,000.00	
Other Council Expenses (Member Mileage Expenses/Printing/Etc.)	$ 10,000.00	$ 161.50	$ 9,838.50	$ 10,000.00	$ 2,320.15	$ 7,679.85	$ 10,000.00	$ 2,645.11	$ 7,354.89	
TAMC Expenses Total	**$ 31,471.51**	**$ 161.50**	**$ 31,310.01**	**$ 40,000.00**	**$ 15,314.17**	**$ 24,685.83**	**$ 40,000.00**	**$ 12,645.11**	**$ 27,354.89**	
Total Program	**$ 1,906,040.79**	**$ 1,576,401.71**	**$ 329,639.08**	**$ 1,870,433.08**	**$ 1,319,421.21**	**$ 551,011.87**	**$ 1,870,433.08**	**$ 1,560,914.27**	**$ 309,518.81**	
Appropriation	**$ 1,876,400.00**		**17.29%**	**$ 1,876,400.00**		**29.46%**	**$ 1,876,400.00**		**16.55%**	

VII. Special Projects with Separate Budgets	**FY21 Budget**	**FY21 Year to Date**		**FY22 Budget**	**FY22 Year to Date**		**FY23 Budget**	**FY23 Year to Date**		
MI Local Agency Culvert Inventory Pilot (FY18 HB4320 S-3)	**$**	**Spent**	**Balance**	**$**	**Spent**	**Balance**	**$**	**Spent**	**Balance**	
Central Data Agency (MCSS)	$ 70,000.00	$ 995.55	$ 69,004.45	$ 69,004.45	$ -	$ 69,004.45	$ 69,004.45	$ 55,405.39	$ 13,599.06	
MTU Culvert Project Activities & Training Program	$ 135,007.92	$ 106,690.48	$ 28,317.44	$ 77,258.02	$ -	$ 77,258.02	$ 15,887.41	$ 10,426.46	$ 5,460.95	
TAMC Administration & Contingency (Unencumbered)	$ 274,117.59	$ -	$ 274,117.59	$ 117.59	$ -	$ 117.59	$ 117.59	$ -	$ 117.59	
Central Upper Peninsula Planning and Development	$ -	$ -	$ -	$ 24,000.00	$ 257.41	$ 23,742.59	$ 23,742.59	$ -	$ 23,742.59	
East Michigan Council of Governments	$ -	$ -	$ -	$ 42,000.00	$ 338.74	$ 41,661.26	$ 41,661.26	$ 21,627.26	$ 20,034.00	
Northeast Michigan Council of Governments	$ -	$ -	$ -	$ 10,000.00	$ -	$ 10,000.00	$ 10,000.00	$ 6,520.31	$ 3,479.69	
Networks Northwest	$ -	$ -	$ -	$ 16,000.00	$ -	$ 16,000.00	$ 16,000.00	$ 1,853.84	$ 14,146.16	
Southcentral Michigan Planning Commission	$ -	$ -	$ -	$ 6,000.00	$ 8.00	$ 5,992.00	$ 5,992.00	$ -	$ 5,992.00	
Southeast Michigan Council of Governments	$ -	$ -	$ -	$ 33,000.00	$ 33,000.00	$ -	$ -	$ -	$ -	
Southwest Michigan Planning Commission	$ -	$ -	$ -	$ 27,000.00	$ -	$ 27,000.00	$ 27,000.00	$ 27,000.00	$ -	
Tri-County Regional Planning Commission	$ -	$ -	$ -	$ 34,000.00	$ 34,000.00	$ -	$ -	$ -	$ -	
West Michigan Regional Planning Commission	$ -	$ -	$ -	$ 34,000.00	$ -	$ 34,000.00	$ 34,000.00	$ 5,096.09	$ 28,903.91	
West Michigan Shoreline Regional Development Com.	$ -	$ -	$ -	$ 36,000.00	$ 30,454.07	$ 5,545.93	$ 5,545.93	$ 5,562.15	$ (16.22)	
Western Upper Peninsula Regional Planning & Devel.	$ -	$ -	$ -	$ 12,000.00	$ -	$ 12,000.00	$ 12,000.00	$ 3,963.18	$ 8,036.82	
MI Local Agency Culvert Inventory Pilot Project Total	**$ 479,125.51**	**$ 107,686.03**	**$ 371,439.48**	**$ 420,380.06**	**$ 98,058.22**	**$ 322,321.84**	**$ 260,951.23**	**$ 137,454.68**	**$ 123,496.55**	
Total Special Program	**$ 479,125.51**	**$ 107,686.03**	**$ 371,439.48**	**$ 420,380.06**	**$ 98,058.22**	**$ 322,321.84**	**$ 260,951.23**	**$ 137,454.68**	**$ 123,496.55**	

Notes: Waiting on SATA invoice and final invoice for PASER Quality Review Contract

Updated BMS 11/30/2023

Appendix E

Transportation Asset Management Council
2024 Roster and Committee Assignments

Current Members		Current Term		Permanent		
Member Name	Member Agency	Begin	End	A.C.E.*	Bridge	Data
Ryan Buck	MTPA	Jan-21	Jan-24	Chair		
Art Green	MDOT	Nov-22	Nov-25		X	
Jacob Hurt	MAR	May-22	May-25	Vice-Chair		
James Hurt	MML	Jul-23	Jul-26	X	X	
Joanna Johnson, TAMC Chair (2023)	CRA	May-22	May-25			
Kelly Jones	MAC	Aug-22	Aug-25		X	
Bill, McEntee, TAMC Vice-Chair (2023)	CRA	Dec-20	Dec-23			Chair
Eric Mullen	MDOT	Jul-23	Jul-26		X	
Bob Slattery	MML	Oct-22	Oct-25			X
Rob Surber (non-voting)	DTMB/CSS	Oct-22	Oct-25	X		X
Jennifer Tubs	MTA	Dec-22	Dec-25			Vice-Chair

Non-Council Members with Committee Assignments	
Member Name	Member Agency
Alan Halbeisen, OHM Advisers	Advisor
Becky Curtis, MDOT Bridge Engineer	MDOT
Keith Cooper, MDOT Bridge Engineer, Vice-Chair	MDOT
Wayne Harrall, Bridge Engineer	Kent CRC
Michael Halloran, MDOT, Chair	MDOT
Eric Mullen, MDOT	MDOT
Brian Vilmont, Prein & Newhof	Advisor
Michael Halloran, MDOT, Chair	MDOT

MIC/TAMC/WAMC – Cross-council Leadership Committee

- John Weiss (MIC Chair-GVMC)
- Erin Kuhn (MIC Vice Chair-WMSRDC)
- Joanna Johnson (TAMC Chair-Kalamazoo Co.)
- Sue McCormick (WAMC Chair-Great Lakes Water Authority)
- Aaron Keatley (EGLE)
- Todd White (MDOT)

Appendix F

Center for Shared Solutions' 2024 TAMC Work Plan

FY2024 CSS Work Plan for TAMC

Work Area	Tasks	Description	2024 Budget Hours	2024 Budget Cost
A. Project Mgmt	1. Administrative / Mgmt Tasks	Time set aside for Project Management Work: including financial updates, resource management, & project management.	*525*	*$ 56,175.00*
		Actuals to date		
B. Data Support	1. PASER Data Tasks	Coordination of incoming PASER data; Correspondence with local agencies; Management of datasets; Quality Control; Preparing maps and reports; Responding to requests as needed.	200	$ 21,400.00
		Parent task - 50028 - roughly 120 hrs.		
		Includes State wide paser report for about 80 hrs.		
	2. Reporting and Analysis	Additional reports and data support.	120	$ 12,840.00
C. Application Development / Maintenance / Support	1. IRT & IMAP Bug Fixes / Ongoing Maintenance / Support	Required time spent on maintaining current website - troubleshooting when problems arise, handling break/fix issues, updating of geography; also includes server and/or infrastructure support to ensure online availability of application.	240	$ 25,680.00
		Parent task 50030 - Bugs = 76 hrs - * Prioiritization needed.		
		Parent Task 50031 - IRT bugs = 164 hrs *Prioiritization needed.		
		App Improvements from storyboard	102	$ 10,200.00
	2. Application Testing	Includes functionality testing, regression testing, updating test plans, and user acceptance testing, in response to data and application updates.	120	$ 12,840.00
Application Changes & Improvements	3. IRT Application Updates From IRT Requirements Backlog	Complete IRT Enhancements. Includes assisting on PASER uploads and providing reports.	150	$ 16,050.00
	4. Interactive Map - Desktop	Interactive Map enhancements from backlog list.	100	$ 10,700.00
	5. Additional Dashboard Enhancements	Any new dashboard related changes that need to be made.	125	$ 13,375.00
	6. Additional application upgrades - New legislation requirements, TAMP, ACT 51	Improve data integration between TAMC databases and other systems; possible enhancements to applications to meet any new requirements for reporting, compliance with asset management plans, etc.	157	$ 16,799.00
	7. ADARS ReWrite		150	$ 16,050.00
	8. STIP (change to job net)	Integrating and working better with Jobnet	80	$ 8,560.00
	9. MGF/TAMC Portal	Upgrading system to automatically support the intake of information from MDOT for dashboad	149	$ 16,057.73
	10. Signal Inventory	making changes to TAMC to support Signal inventory in IRT and in Dashboards	80	$ 8,560.00
	11. ADA Review and Usability Testing	ADA and Usability Testing.	40	$ 4,280.00

D. Help Desk, Misc Support	1. Help Desk Tasks	Time set aside for answering phones calls, assisting IRT users, logging issues, attending conferences.	250	$ 22,500.00
	2. Administrative Support	Preparation of reports, status maps, and correspondence to assist end users and TAMC staff. Time for mgmt to record for meetings with TAMC MDOT staff	300	$ 30,000.00
E. Training	1. Provide training for 8 Webinars	Maintain online training videos and documentation to reflect any updates to applications. Execute eight on line training sessions via webinar.	140	$ 12,600.00
F. Data Access / Reporting	1. Dashboard -Maintenance	Maintenance / Support of existing dashboards currently in production and minor enhancements as needed.	250	$ 25,000.00
		Original Forecasted Budget:	3278	$ 339,666.73
		Items highlighted Green are absolutely needed.		
		Items highlighted in yellow are items they can chose to have. They are based on stories in Azure on problems/e		
		Took into consideration stories ranked as priority, 1, 2 or 3.		
		Just Mandatory (eliminating all yellow)	**2185**	**$ 223,315.00**
		Resource needs (1.25 FTEs)	1 Application Developer	Dedicated to Dashboard updates, business requests, and bug fixes. Also includes other staff for training, Project Management and special requests.
		APPROVED BUDGET for FY 2024 includes all mandatory items in green:		**$230,000**

Appendix G

Michigan Technological University's 2024 Education Work Plan

Proposal Title:

DRAFT 2024 Transportation Asset Management Council Education Program Work Plan

Submitted To:

Eric Mullen
Bureau of Transportation Planning
Michigan Department of Transportation
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Principal Investigator:

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Date Submitted:

September 19, 2023

Michigan Technological University

Civil, Environmental, and Geospatial Engineering

Table of Contents

1.0 INTRODUCTION

The Michigan Transportation Asset Management Council (TAMC) began delivering its education program and providing technical services in 2004. Since that time, Michigan Technological University's Center for Technology & Training (CTT) has assisted the TAMC with its education programs and technical assistance services.

The CTT a logical choice for the TAMC's education programs and technical assistance services: The CTT houses various state- and federal-funded programs. CTT programs and projects funded by the state's Michigan Department of Transportation (MDOT) include the Michigan Local Technical Assistance Program (LTAP), Roadsoft, Michigan Engineer's Resource Library (MERL), and Michigan Local Bridge Load Rating and Inspection Support and Technology Transfer. The CTT also houses the federally-funded Environmental Protection Agency's Region 5 environmental finance center—the Great Lakes Environmental Infrastructure Center (GLEIC). This array of programs economizes upon professional, development, and support staff to make project delivery cost effective and efficient.

The CTT focuses its efforts specifically on projects related to local government agencies and transportation infrastructure. The CTT is part of Michigan Technological University's Department of Civil, Environmental, and Geospatial Engineering (CEGE) and is located on Michigan Tech's campus, which offers a wide array of resources for this project.

In 2014, the State of Michigan required continuing education hours (CEH) for professional engineers to maintain their licenses. As part of an education institution, the Michigan LTAP is in the position to provide CEH for professional engineers. Alongside this ability, the Michigan LTAP can encourage the appropriate TAMC training events as a means for maintaining licensure.

One of the primary challenges to working effectively with the over 600 local agencies in Michigan is keeping accurate contact information. The Michigan LTAP's ability to contact local agency staff through e-mail, phone, and direct mail can provide a significant benefit to programs that are targeted at Michigan's local agencies, like the TAMC's training efforts. The Michigan LTAP maintains a state-of-the-art contact and event management database, which makes advertising and participant registration for local-agency training events a seamless and cost-effective process. In addition, because the Michigan LTAP is part of a nationally-recognized program—National LTAP Association (or NLTAPA)—working to educate local agencies, events advertised through the Michigan LTAP can take advantage of state and national agreements between partner organizations—such as County Road Association (CRA) of Michigan, Michigan Township Association (MTA), Michigan Municipal League (MML), National Association of County Engineers (NACE), National Association of Counties (NACO), and American Council of

Engineering Companies (ACEC)—for access to their contact databases. These agreements allow the Michigan LTAP access to these partner organization mail lists at no cost. Access to these same mail lists outside of LTAP partner organization agreements can have a substantial cost, sometimes as high as $0.10 to $0.20 per contact.

Events that are co-sponsored with the Michigan LTAP benefit by using the wealth of local agency contact information that is stored in the Michigan LTAP contact and event management system and from the no-cost access to Michigan LTAP partner organization mail lists. They also benefit by taking advantage of the infrastructure that the Michigan LTAP has for registering and invoicing participants, event tracking, and training records retention. By not duplicating these efforts, the arrangement results in an economy of scale through cooperation among programs that educate local agency transportation staff.

Since its inception, the TAMC training program has been and continues to be coordinated as a co-sponsored training event with the Michigan LTAP.

2.0 TAMC WORK PLAN GUIDELINES

The tasks for this proposal were identified from educational priorities outlined by TAMC in the Draft *TAMC Strategic Work Program for 2023-2025* and are referenced to the appropriate items in the most recent version of that document.

3.0 WORK PLAN

This draft work plan is for discussion purposes only to assist TAMC in budgetary planning. It does not represent a firm quote, and it does not commit University personnel, facilities, or funds. Final terms and conditions of this sponsored activity are subject to University review and authorization of a formal proposal or agreement.

This work plan and budget is for the period beginning January 1, 2024 and ending December 31, 2024. The project total is approximately $190,000. A more precise and detailed cost estimate will be provided in Appendix A with the final proposal should the TAMC accept this scope of work at the budgetary level.

The 2024 TAMC Education Program work plan consists of the following proposed tasks:

- Task 1: Assist in Coordinating the Michigan Transportation Asset Management Conferences

- Task 2: Conduct Introduction to Transportation Asset Management for Local Officials and Gravel Road Basics for Local Officials Training
- Task 3: Conduct Michigan Transportation Asset Management Council PASER Training
- Task 4: Conduct Inventory-based Rating System™ Training
- Task 5: Conduct Bridge Asset Management Training Series
- Task 6: Conduct Pavement Asset Management Plan Series
- Task 7: Conduct Updating Your Bridge, Pavement, and Compliance Plan Training
- Task 8: Conduct Culvert Condition Assessment Training
- Task 9: Project Management and Reporting

A nominal registration fee will be assessed to participants for attending training events delivered under this program consistent with the Michigan LTAP policy. Registering and failing to show at an event per the Michigan LTAP cancellation policy will result in a fee for that participant. Training event registration fees are targeted to result in no net loss or gain for the Michigan LTAP training program (i.e., expenses and registration fees balance) and cover the expense of consumables that participants use or take with them, such as facility rental, webinar and phone line expenses, food and refreshments, handouts, and rental of audio-visual equipment. Registration fees help to offset the financial load on the program for on-site activities. Additionally, the absence of a registration fee (i.e., free training) has been shown to increase no-shows and decrease attendance at training programs because it requires no commitment on the part of the participant and it may be assumed that "free" training has some other profit motive.

Participants in training events offered under this program will be issued certificates of completion for continuing education hours (CEH) required for maintaining a Michigan professional engineer license, where applicable. Every attempt will be made to ensure that trainings provided in this program are eligible for CEH credit for attendees.

3.1 Task 1: Assist in Coordinating the Michigan Transportation Asset Management Conferences

ACE Committee Goal 4, Objective 3: Educational Conferences
Full Council Goal 1 Objective 3: Providing Education and Training

CTT staff will participate in organizing up to two annual Transportation Asset Management conferences by participating in organization meetings, distributing promotional material, processing participant registration, printing handouts, facilitating the conferences, and providing on-site audiovisual and logistical support. CTT staff will record audio and screen captures of presentations, which will be merged into a format that can be streamed over the web.

CTT staff will collect the registration fee set by the TAMC, mail invoices, and return collected fees back to the TAMC to defray on-site and facility expenses since the TAMC will be negotiating and signing a contract with the event facilities.

Direct Cost:
Travel costs: Travel expense calculations included in detail on the travel portion of the budget. Travel is assumed to be 1000 miles round trip for each conference, and are calculated at $0.625 per mile in accordance with Michigan Tech's approved vehicle use rate calculation for a large SUV. The location of the conferences are currently not known.

Per diem and overnight room costs are in accordance to federal government GSA travel rules using the standard rate of $98 per night for rooms and $59 per night for per diem. The use of GSA travel costs is specifically allowed in section 17e of the MDOT – University master agreement.

Reproduction: The work plan includes creating conference event materials for two conferences. It is assumed that total attendance for these events will be approximately 350 people and the printed materials will be approximately 20 pages total per person. Color reproduction costs 6 cents per page and is detailed in Michigan Tech's current use fee agreement for commercial grade reproduction equipment.

3.2 Task 2: Conduct Introduction to Transportation Asset Management for Local Officials and Gravel Road Basics for Local Officials Training

Full Council Goal 1 Objective 3: Providing Education and Training

This task includes presentation of five sessions of either Transportation Asset Management for Local Officials, which has been offered for several consecutive years and focuses on management of paved roads, or Gravel Road Basics for Local Officials, which was developed and piloted in 2018 and focuses on unpaved roads. The training sessions will be offered in any combination of these two training events that local agencies request. Each session is approximately three hours long. CTT has also proposed to offer these topics at the annual Michigan Township Association statewide meeting in an effort to reach many townships at once.

Historically, the Transportation Asset Management for Local Officials training has been offered at a local agency office, with that agency offering to "host" the event. Hosted training events typically target the local and/or elected officials in the immediate or nearby jurisdictions. Hosted training events will be delivered during morning, afternoon, evening, or virtually as the host agency expresses interest. In addition to hosted sessions, several "open enrollment"

sessions will be planned that are not associated with a host agency. Open enrollment events will be advertised to all elected officials statewide. The classes will be offered either in person or in an online format to meet the needs of different learners.

Direct Cost:
Travel costs: Travel expense calculations included in detail on the travel portion of the budget. Travel is assumed to be 1250 miles round trip for each training event, and are calculated at $0.625 per mile in accordance with Michigan Tech's approved vehicle use rate calculation for a large SUV. The location of the events are currently not known.

Per diem and overnight room costs are in accordance to federal government GSA travel rules using the standard rate of $98 per night for rooms and $59 per night for per diem. The use of GSA travel costs is specifically allowed in section 17e of the MDOT – University master agreement.

Reproduction: The work plan includes creating training event materials for distribution at in-person events. It is assumed that total attendance for the events will be approximately 150 people and the printed materials will be approximately 60 pages total per person. Color reproduction costs 6 cents per page and is detailed in Michigan Tech's current use fee agreement for commercial grade reproduction equipment.

3.3 Task 3: Conduct Michigan Transportation Asset Management Council PASER Training

Full Council Goal 1 Objective 3: Providing Education and Training

The presentation material for PASER training will be updated to reflect data collected in 2023 quality review rating results and any changes in legislation or TAMC policies. Training will be further adapted to the use of audience response systems (polling tools) based on the continued success of using this technology. This technology engages attendees, provides instant and accurate feedback, and produces data that can be used to further assess training techniques.

Training dates will be coordinated with the TAMC's data collection start date. The TAMC needs to notify the CTT of any changes in its collection training requirements and policy by December 1, 2023 in order to accommodate the timeline to secure training facilities and to notify attendees of the new requirements. It is otherwise assumed that start dates and the training policy will remain the same as the last approved start dates and policy. It is possible to switch on-site events for remote events to meet the TAMC requirements of a new or modified collection policy; however, cancellations of scheduled on-site events may result in facility cancellation fees, which are the responsibility of the project.

This task includes facility costs, printing and distribution of handouts, purchase of PASER Manuals, participant registration, CTT instructor time, and travel costs.

This task includes the distribution of the Local Agency Asset Management Survey, which will be delivered in its current format to all local agency participants at the on-site and virtual PASER Training and the Inventory-based Rating System™ Training.

The 2023 training sessions were conducted as a mix of virtual and on-site sessions; this mix was well received by the attendees, allowing them to choose the mode that best suits their learning preferences. The intended delivery mode for the 2024 training sessions will be the same mix of virtual and on-site training sessions as follows:

Web-delivered PASER Training:
Conduct four PASER Training webinar series (3 consecutive days at 2 hours each day) covering all aspects of PASER Training. This series will be identical in form to the web-based training that was offered in 2021 to 2023. Tentatively PASER web delivered series will be presented in February, March, June, and July

In-person-delivered PASER Training:
Conduct four half-day on-site PASER Training sessions in locations that minimize the drive time for participants that want to attend in person. Tentatively, this could include the Detroit Metro area, Grand Rapids area, Gaylord or other Northern Lower Peninsula location, and one central Upper Peninsula location. Tentatively PASER on site delivered series will be presented in March and April.

TAMC Pre-Recorded PASER Message:
CTT staff will facilitate the recording of TAMC's presentation to road rating teams. This recording is intended to be used during PASER training when Council members cannot be present for the live event. Recording will be completed via zoom in coordination with the TAMC chair. This task does not include creation of TAMC's presentation material which has historically been completed by the TAMC Coordinator in consultation with the TAMC chair.

Regional/Metropolitan Planning Organization PASER Collection Mechanics:
Conduct one, two-hour webinar for planning organizations on using the Roadsoft data process for TAMC data collection.

Travel costs: Travel expense calculations included in detail on the travel portion of the budget. Travel is assumed to be 2,000 miles round trip for each trip event consisting of delivering two training events, and are calculated at $0.625 per mile in accordance with Michigan Tech's

approved vehicle use rate calculation for a large SUV. The location of the events are currently not known.

Per diem and overnight room costs are in accordance to federal government GSA travel rules using the standard rate of $98 per night for rooms and $59 per night for per diem. The use of GSA travel costs is specifically allowed in section 17e of the MDOT – University master agreement.

Reproduction: The work plan includes creating a 100-page data collection manual and providing asphalt, sealcoat and concrete PASER manuals for each of the attendees that requests a copy. It is assumed that total attendance for the events will be approximately 300 people and the printed materials will be approximately 150 pages total per person. Color reproduction costs 6 cents per page and is detailed in Michigan Tech's current use fee agreement for commercial grade reproduction equipment.

3.4 Task 4: Conduct Inventory-based Rating System™ Training

Full Council Goal 1 Objective 3: Providing Education and Training

The Inventory-based Rating (IBR) System™ for unpaved roads was developed in 2015 at the request of the TAMC. In 2016, the tools in Roadsoft were released to allow agencies to collect and analyze unpaved road condition data efficiently. In 2017, the TAMC adopted a data collection policy that included mandatory collection of the IBR System™ data for unpaved roads on the federal-aid-eligible road network that took effect in 2018. In order to collect this data, it will be necessary to train raters who are part of a data collection effort that includes gravel roads.

This task will deliver three, one-hour webinars on use of the IBR System™ for rating unpaved roads. This training will allow local agencies to make consistent use of the tools and systems that TAMC has developed over the years for unpaved roads and will allow them to collect data for their own use and for reporting to TAMC.

Tentatively the IBR data collection webinars will be presented in February, April, and June.

Reproduction: The work plan includes providing the IBR manual which is a 50 page commercially printed manual for each of the attendees that requests a copy. It is assumed that total attendance for the events will be approximately 300 people and the printed materials will be approximately 50 pages total per person. Color reproduction costs 6 cents per page and is detailed in Michigan Tech's current use fee agreement for commercial grade reproduction equipment.

3.5 Task 5: Conduct Bridge Asset Management Training Series

Full Council Goal 1 Objective 3: Providing Education and Training

The Bridge Asset Management Training Series includes a two-hour webinar ("Introduction to Bridge Asset Management") on the principles of bridge asset management and a four-part virtual workshop series (two-hour sessions with approximately 30 minutes of instruction followed by time for questions while working through the process of using a tool to produce an asset management plan) that provide participants with a true hands-on approach to building their bridge asset management plan**.** The virtual format is an effective approach for this training as it allows the participants direct access to training and technical assistance while being surrounded by all the information needed to develop their asset management plans. Participants no longer step through creating their asset management plans with generic and/or hypothetical information only to have to redo large portions due to leaving data back at their offices; instead, the virtual workshop enables them to have access to all their data during the training event, better guaranteeing that they will produce a draft asset management plan at the conclusion of the training. The virtual workshop is spread out over four two-hour sessions to allow agencies time to create their content before the class moves on to the next step in the process.

This task will provide time and expenses for a CTT instructor to present the "Introduction to Bridge Asset Management" webinar and the four-part virtual workshop series on one occasion each. This training series will be targeted for local agencies who have no familiarity with bridge asset management.

3.6 Task 6: Conduct Pavement Asset Management Plan Series

Full Council Goal 1 Objective 3: Providing Education and Training

The Pavement Asset Management Plan series consists of three consecutive two-hour webinars that are taught over the course of three days. The workshop introduces people that are new to asset management to the requirements of PA325 of 2018 and the required components of a pavement asset management plan. The first day of the training is lecture followed by a demonstration of the pavement asset management plan template data handling steps. The second day of the training is a hands-on walk through the tool used to create the plan using participant's own data. Participants are instructed on how to use advanced functions of Microsoft Word to edit and manage the template documents. The last day of the workshop is a help session where attendees can work through their plan and ask questions as they arise or have parts of the process reviewed.

The webinar platform allows participants who run into technical problems building their plan to be moved into a breakout session where they can work one on one with a CTT staff to troubleshoot their problem; once finished, those participants are placed back into the main session. The webinar platform also allows easy sharing of participants' computer screens, which can be illustrative to other participants and eases the technical assistance load.

This task will provide time and expenses for CTT instructors to present one offering of the complete training series (the two-part virtual workshop followed by one or two half-day working sessions).

3.7 Task 7: Conduct Updating Your Bridge, Pavement, and Compliance Plan Training

Full Council Goal 1 Objective 3: Providing Education and Training

While Tasks 5 and 6 provide pavement and bridge asset management plan training for local agency employees that have not previously used the plan tools and templates and are new to the requirements of PA325 of 2018, Task 7 provides training to the local agency staff that are familiar with the use of the plan templates, have previously submitted their plans, and are charged with submitting an updated pavement, bridge, and compliance plan in 2024 for the second round of plan updates.

The training delivered in this task consists of presenting a three-hour webinar session which covers how to update the bridge, pavement, and compliance plans. The webinar will be offered three times and will review the process of updating data for the templates from Roadsoft and MIBridge, will step through the process of completing updated graphs and tables for these plans, and will demonstrate generation of an updated compliance plan. The training will also illustrate techniques and tools in Microsoft Word that can be used to speed the update review and editing process.

This task includes a small budget for providing technical assistance to local agencies in completing their pavement, bride and compliance plans. In past years, technical assistance has been heavily utilized to help overcome barriers, bring new staff up to speed and answer technical questions relating to these plans.

3.8 Task 8: Conduct Culvert Condition Assessment Training

Full Council Goal 1 Objective 3: Providing Education and Training

The Culvert Condition Assessment Training consists of a three-hour webinar that provides an introduction to the *TAMC 2021 Michigan Non-NBI Culvert Structure Inspection Guide* and the

technical process of culvert inventory data collection and condition assessment. The training includes condition assessment examples to step through the inspection process.

This task will provide time and expenses for CTT instructors to present two offerings of the training.

9 Task 9: Project Management and Reporting

ACE Committee Goal1: Provide fiscal and budgetary accountability for TAMC

This effort covers all management of the project, project reporting, project-specific interaction with Michigan Tech administration, and relations with the sponsor.

Monthly Reports
Monthly progress reports will include a list of trainings conducted (including date and location) and an estimate of percent completion by task. Estimates of percent completion are based on aggregate hours worked—not based on budget expended—so these estimates are not intended to be used for auditing invoices by the sponsor.

Annual Training Report
At the end of each calendar year, CTT staff will compile a comprehensive report that will summarize the performance of all TAMC training events. The report will include historical attendance figures as compared to the current year, spatial summary maps of attendees for the TAM conferences, and feedback received from participant evaluations.

Annual Survey of Local Agency Asset Management Implementation Report
Following the completion of PASER Training, CTT staff will compile a comprehensive training report that will summarize the results of the Local Agency Asset Management Survey collected during the annual PASER and IBR System™ trainings and will compare current and historical results.

4.0 KEY PERSONNEL

Tim Colling, PhD, PE, Director – PI
Pete Torola, PE, Research Engineer II – Co-PI
Chris Gilbertson, PhD, PE, Associate Director – Co-PI

Names of Employees and Positions for this Service
Cynthia Elder, Events Specialist
Zach Fredin, MS, PE, Research Engineer I

Tammy Hodson, Business/Training Support Specialist
Victoria Kaplewski, MS, Technical Writer
Alexi Radke, Technical Support Specialist
Noah Rule , Marketing Specialist
Ingrid Sandberg, MS, PE, Research Engineer I
Amy Spahn, MS, Center Coordinator

APPENDIX A: BUDGET AND COST DERIVATION MDOT FORM 5101A-1

APPENDIX B: PAYROLL VERIFICATION

Appendix H

Michigan Technological University's 2024 Technical Assistance Activities Work Plan

Proposal Title:

DRAFT 2024 Transportation Asset Management Council Technical Assistance Activities Program Work Plan

Submitted To:

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1.0 INTRODUCTION

The Michigan Transportation Asset Management Council (TAMC) began delivering its education program and providing technical services in 2004. Since that time, Michigan Technological University's Center for Technology &Training (CTT) has assisted the TAMC with its education programs and technical assistance services.

The CTT is a logical choice for the TAMC's education programs and technical assistance services: In addition to the TAMC education program, the CTT houses other programs funded by the Michigan Department of Transportation (MDOT) including the Michigan Local Technical Assistance Program (LTAP), Roadsoft, Michigan Engineer's Resource Library (MERL), and the Bridge Load Rating Program. This array of programs economizes upon professional, development, and support staff to make project delivery cost effective and efficient.

The CTT focuses its efforts specifically on projects related to local government agencies and transportation infrastructure. The CTT is part of Michigan Technological University's Department of Civil, Environmental, and Geospatial Engineering (CEGE) and is located on Michigan Tech's campus, which offers a wide array of resources for this project.

2.0 TAMC WORK PLAN GUIDELINES

The tasks for this proposal were identified from priorities outlined by the TAMC in the *TAMC* Draft *TAMC Strategic Work Program for 2023-2025* and are referenced to the appropriate items in the most recent version of that document.

3.0 WORK PLAN

This draft work plan is for discussion purposes only to assist TAMC in budgetary planning. It does not represent a firm quote, and it does not commit University personnel, facilities, or funds. Final terms and conditions of this sponsored activity are subject to University review and authorization of a formal proposal or agreement.

This work plan and budget is for the period beginning January 1, 2024 and ending December 31, 2024. The project total is approximately $150,000. A more precise and detailed cost estimate will be provided in Appendix A with the final proposal should the TAMC accept this scope of work at the budgetary level.

The 2024 TAMC Activities work plan consists of the following proposed tasks:

- Task 1: Maintain Roadsoft and IRT Data Submission Protocols
- Task 2: TAMC Quality Review Data Collection Support
- Task 3: Roadsoft TAMC Treatment Category Improvements
- Task 4: Culvert tools for Integration into Asset Management Plan
- Task 5: Undefined Staff Support
- Task 6: Attend and Participate in TAMC Council Meetings
- Task 7: Attend and Participate in TAMC Committee Meetings
- Task 8: Project Management and Monthly Reporting

3.1 Task 1: Maintain Roadsoft and IRT Data Submission Protocols

Data Committee Goal 1, Objective 2: Ensure Framework base map, Roadsoft, and the Investment Reporting tool are compatible and up to date

The TAMC dedicates a significant portion of its efforts to collecting the data and construction history information (completed and planned investments) necessary for driving asset management processes at the local, regional, and state levels of government. TAMC data collection activities require sharing of data between these three levels of government in a meaningful format for each stakeholder. To facilitate this data collection, sharing, and reporting, the TAMC relies on interfaces between Roadsoft (asset management software), developed by the Center for Technology & Training, and the Investment Reporting Tool (IRT), developed by the Center for Shared Solutions (CSS). Development for both of these tools is ongoing as user requirements change, software interfaces and underlying data systems are maintained, and data collection policies are modified.

The data transfer protocols and interactivity between Roadsoft and the IRT need to be updated and tested annually to ensure that quality data are passed between the two systems and that changes or updates during the prior year have not resulted in data transfer irregularities. This task should be completed close to the start of data collection activities in April, but the development cycle and project load for the CSS will dictate when the completion on this task occurs.

The task of maintain Roadsoft and IRT data submission protocols will include annual testing and verification of the Roadsoft export of PASER data to the IRT as well as import and export of planned and completed treatments (investment reporting) from Roadsoft to the IRT and from the IRT to Roadsoft. This task also includes a budget for making small changes to the import and export protocols (e.g., changes to accommodate submission of culvert and traffic signal data) should changes be necessary. At the time of the submission of this proposal, it is not clear what the extent the changes will be.

3.2 Task 2: TAMC Quality Review Data Collection Support

Council Goal 1, Objective 2: Supporting the development of appropriate asset management methodologies and innovations

Historically, the TAMC has relied on MDOT staff using the ESRI Maptitude program to collect quality review data for PASER data collection. However, the retirement of key MDOT staff and the sunsetting of ESRI's support for Maptitude has necessitated a change in practice. A consultant team now collects quality review data using Roadsoft's Laptop Data Collector (LDC), which is the same tool that rating teams use.

This task will provide support to the selected quality review consultant team by creating a custom subdivided map in a version of Roadsoft that has all of the statewide quality review segments identified. CTT staff will provide technical support for quality review consultant as they install, update, and setup the programs and during collection and submittal of data to the CSS.

3.3 Task 3: Roadsoft TAMC Treatment Category Improvements

Data Committee Goal 2, Objective 10, Improve the accuracy of data and reporting

TAMC collects data on completed and planned road and bridge projects from road owning agencies. This data provides vital information regarding the volume of work, the type of work, and its statewide distribution. TAMC investment reporting data is the only global source of project data for the non-federal aid road system and is an important source of data for federal aid roads that receive maintenance or rehabilitation from non-federal funds either through federal aid buy-outs or from local funds.

Completed and planned road and bridge project data can be either be reported directly by entering it into the Investment Report Tool (IRT) Portal, or can be entered into Roadsoft where it can be exported to the IRT for reporting. Entry into Roadsoft has the added bonus of being available for use in local agency pavement management decision making and reporting. Entering project data in Roadsoft increases the quality of modeling analysis the program can produce.

During the process of completing project reporting users must map their local treatment name (common name) to a TAMC treatment reporting classification. For example, a user treatment name may be "crush and shape 4 in. asphalt top" which would translate to a TAMC treatment classification of "Rehabilitation". See Figure 1 below for an example of data included in TAMC project reporting. TAMC has a guidance document that details over 100 of these common names to TAMC classification mappings (see Appendix C), however these may not be readily available during reporting, or users may neglect to verify their mapping between common

name and TAMC class are up to date. Inaccurate project classification mapping reduces the value of TAMC's reported data, adding error into routine data analysis such as treatment cost analysis.

TAMC Completed Road Projects Export Report

(County)

Date	ProjectID	Warranty	Reactionary	TAMC Class	Cost
11/15/2022	459 XXX	No	No	Rehabilitation	$328,160.00

Jurisdiction/ NFC	Surface/ SubType	PRNo	Road Name	Bmp	Emp	Length	Lanes	From Description/ To Description	Roadsoft Treatment	Life Exp
Twp	Asphalt	21310	N 6th St	1.504	2.478	0.974	2	H	Mill/2" HMA Overlay	10
Major Collector	Asphalt-Standard							G		
	Asphalt	21310	N 6th St	2.478	3.480	1.002	2	G Ave	Mill/2" HMA Overlay	10
Major Collector	Asphalt-Standard							F Ave		

Date	ProjectID	Warranty	Reactionary	TAMC Class	Cost
11/15/2022	459 XX	No	No	Rehabilitation	$213,105.00

Jurisdiction/ NFC	Surface/ SubType	PRNo	Road Name	Bmp	Emp	Length	Lanes	From Description/ To Description	Roadsoft Treatment	Life Exp
Twp	Asphalt	3393000	Miller Dr	0.115	0.772	0.658	2	35th	Mill/2" HMA Overlay	10
Major Collector	Asphalt-Standard							City/Twp Line		
Twp	Asphalt	3393000	Miller Dr	0.772	1.591	0.819	2	City/Twp Line	Mill/2" HMA Overlay	10
Major Collector	Asphalt-Standard							38th		

Figure 1: Roadsoft Reporting for TAMC Completed Road Projects

Currently TAMC's project reporting requires specific locations for treatments to be defined. Each project requires a beginning mile point, ending mile point and a road segment name. This can be problematic for some light preventive maintenance and some heavy preventive maintenance treatments which may not be recorded in local agency records. For example, many agencies do not record the exact location of crack sealing since it is relatively inexpensive, can be done with their own forces, and does not change the PASER Rating. In some instances local agencies will either not report these treatments, or try to report them as a yearly total on a small segment of road. Both are problematic for data integrity.

This task will create a series of logistical checks and review screens in Roadsoft that will aid in reporting accuracy. The logistical checks will use fuzzy logic (approximate string matching) to verify the appropriateness of the mapping between the user's treatment name and TAMC's treatment classification. Fuzzy logic can navigate treatment names with alternate spellings, abbreviations, or differing word orders. Treatment names that do not provide a near match for one of the over 100 titles in the TAMC classification mapping document will be flagged for user review prior to submittal. The TAMC mapping document will also be added as a pop-up help topic in Roadsoft.

This project will also create a method for bulk, non-specific reporting of CPM treatments through Roadsoft. To bulk report CPM a user will have to enter an approximation of the total cost, total lane miles treated, common name, and TAMC project classification. This function will not be released until TAMC and IRT have approved this reporting schema and adjusted their reporting rules and processes to accept it as an alternative.

The deliverable for this task will be a functional enhancement to the Roadsoft – IRT project export process.

3.4 Task 4: Culvert Tools for Integration into Asset Management Plans

Bridge Committee Goal 2, Objective 2: Develop culvert performance metrics for reporting and integration into asset management plans

The TAMC has focused much of its recent effort on starting the culvert asset management process. TAMC currently has a unified method for collecting inventory and condition data, a data handing process to upload the data to TAMC, and a policy for the collection of culvert data. As part of the 2023 TAMC Activities work plan CTT is summarizing national best practices for culvert asset management.

This task will use the findings of the forthcoming national best practices study, and the recent efforts of TAMC to develop tools that integrate existing data into asset management plans for the local agencies that are required to submit a plan pursuant to Michigan PA 325 of 2018. The culvert asset management tool is expected to be in the form an Excel spreadsheet that works with existing Roadsoft data exports to allow for easy manipulation of culvert data to create charts and data tables. This task will also include a standalone written culvert section that can be edited and inserted into an asset management plan.

The deliverable for this task will be an Excel spreadsheet tool and an example asset management plan section which can be used for local agencies wishing to insert this data into their plans.

3.5 Task 5: Undefined Staff Support

This task provides support to the TAMC for items that cannot be identified at this time but are deemed critical to be completed in a short timeframe. Historically, this task has covered data management or critical changes to programs. This task allocates approximately 140 hours of staff time to tasks as requested by the council or its sub-committees. Specific work activities are determined through discussion with the sponsor's project manager, the TAMC staff coordinator, or the TAMC chairperson.

3.6 Task 6: Attend and Participate in TAMC Council Meetings

TAMC Goal 1: Promote the principles of asset management state wide

This task includes attendance at TAMC council meetings to brief members on activity to date, to participate in on-site work, and to take direction from council members and staff.

This task includes time and expenses for CTT staff to attend four on-site 'person-meetings'[1] and six conference-call meetings[2]. Discussion with the sponsor's project manager and the TAMC staff coordinator will determine which meetings will be attended and which personnel will attend. The budget for travel costs will be allocated to attending additional meetings if in-person meetings are not necessary.

Travel costs: Travel expense calculations included in detail on the travel portion of the budget. Travel is assumed to be 1,000 miles round trip for each trip event consisting of attending four meetings and are calculated at $0.625 per mile in accordance with Michigan Tech's approved vehicle use rate calculation for a large SUV. The location of the meetings is assumed to be Lansing Michigan.

Per diem and overnight room costs are in accordance to federal government GSA travel rules using the standard rate of $98 per night for rooms and $59 per night for per diem. The use of GSA travel costs is specifically allowed in section 17e of the MDOT – University master agreement.

3.7 Task 7: Attend and Participate in TAMC Committee Meetings

TAMC Goal 1:Promote the principles of asset management state wide

This task includes attendance at TAMC committee meetings, which includes meetings such as the Data Committee, ACE Committee, Bridge Committee and data collection coordinating meetings with RPO and MPO staff. This task include participation in on-site work, and taking direction from TAMC members and staff.

This task also includes time and expenses for the CTT staff to attend four on-site 'person-meetings'[1] and eight conference-call meetings[2]. Discussion with the sponsor's project manager and the TAMC staff coordinator will determine which meetings will be attended and which personnel will attend.

[1] A "person-meeting" is one person attending one meeting

[2] As a cost saving measure, the number of on-site meetings and associated travel cost have been reduced with the assumption that teleconference meetings will meet the TAMC's needs as they have over the last several years.

The budget for travel costs will be allocated to attending additional meetings if in-person meetings are necessary.

Travel costs: Travel expense calculations included in detail on the travel portion of the budget. Travel is assumed to be 1,000 miles round trip for each trip event consisting of attending four meetings and are calculated at $0.625 per mile in accordance with Michigan Tech's approved vehicle use rate calculation for a large SUV. The location of the meetings is assumed to be Lansing Michigan.

Per diem and overnight room costs are in accordance to federal government GSA travel rules using the standard rate of $98 per night for rooms and $59 per night for per diem. The use of GSA travel costs is specifically allowed in section 17e of the MDOT – University master agreement.

3.8 Task 8: Project Management and Monthly Reporting

ACE Committee Goal 2: Provide fiscal and budgetary accountability for TAMC

This task covers all management of the project, project reporting, and project-specific interaction with Michigan Technological University administration and relations with the sponsor.

Monthly progress reports will include a list of activities conducted and an estimate of percent completion by task. Estimates of percent completion are based on aggregate hours worked, not based on budget expended; therefore, these estimates are not intended to be used for auditing invoices by the sponsor.

4.0 KEY PERSONNEL

Tim Colling, PhD, PE, Director – PI
Chris Gilbertson, PhD, PE, Associate Director – Co-PI
Nick Koszykowski, Sr. Project Manager Software Development – Co-PI

Names of Employees and Positions for this Service
Jacob Coulson, Software Developer
Cynthia Elder, Events Specialist
Victoria Kaplewski, MS, Technical Writer
Daniel Morgan, Sofware Developer

Luke Peterson, Principal Programmer
Alex Radke, Technical Support Specialist
Ingrid Sandberg, MS, PE, Research Engineer I
Amy Spahn, MS, Center Coordinator
Pete Torola, PE Research Engineer II

APPENDIX A: BUDGET AND COST DERIVATION MDOT FORM 5101A-1

APPENDIX B: PAYROLL VERIFICATION

APPENDIX C: TAMC PROJECT CLASSIFICAITON MAPING

Original Project Classification	NEW Project Classification	Improvement Type	Description
CPM	Heavy CPM	Bituminous < 1.5 inch	Bituminous overlays of 1.5 inches or less
CPM	Heavy CPM	Bituminous shoulder ribbon	Paved shoulder repair or overlay over gravel
CPM	Light CPM	Cape or slurry or fog seal	Cape seal or slurry seal or fog seal
CPM	Heavy CPM	Chip Seal	Thin surface application with aggregate over pavement
CPM	Heavy CPM	Cold milling	Cold milling and overlay
CPM	Heavy CPM	Concrete grind	Concrete diamond grinding
CPM	Heavy CPM	Concrete restore	Full depth concrete patch with other overlays applied
CPM	Heavy CPM	Concrete-patch	Patching concrete joint or open crack
CPM	Light CPM	Crack Seal	Pavement crack seal
CPM	Rehabilitation	Culvert Improvement	Culvert extension and headwall repair/rebuild
CPM	Heavy CPM	Dowel-bar retrofit	Concrete dowel bar retrofit
CPM	Rehabilitation	Drain outlet repair or clean	Clean-out or repair of under surface drain
CPM	Rehabilitation	Drainage restoration	Restoration of drainage for pavement
CPM	Rehabilitation	Full remove and repair	Full depth concrete removal and repair
CPM	Rehabilitation	Hot-bituminous recycling	Hot-in-place bituminous recycling
CPM	Light CPM	Joint Seal	Concrete joint resealing and cracksealing
CPM	Light CPM	Joint/Spall repair	Concreete joint repair and surface spall repair
CPM	Heavy CPM	Micro-Surface	Thin surface layer application over pavement
CPM	Heavy CPM	Overband crack fill	Overband crack clean and fill
CPM	Heavy CPM	Overband crack fill	Overband crack clean and fill
CPM	Heavy CPM	Partial remove and repair	Partial depth concrete removal and repair
CPM	Heavy CPM	Profile milling	HMA milling to a specific profile
CPM	Light CPM	Shallow crack fill	Filling shallow pavement cracks
CPM	Rehabilitation	Shoulder improvement	Surfacing of shoulder with higher quality materials
CPM	Rehabilitation	Shoulder resurface	Resurfacing of the shoulder
CPM	Heavy CPM	Skip patching	Intermittent paving the most distressed sections
CPM	Rehabilitation	Surface mill and overlay	Surface milling and non-structural overlays
CPM	Light CPM	Ultra-thin overlay	MHMA overlay of 0.7 inches average thickness
MCPM	Heavy CPM	Diamond Grinding	Diamond Grinding
MCPM	Heavy CPM	Partial Depth Concrete Pavement Repair	Partial Depth Concrete Pavement Repair
MCPM	Light CPM	Concrete Crack Sealing	Concrete Crack Sealing

MCPM	Heavy CPM	Concrete Joint & Surface Spall Repair	Concrete Joint & Surface Spall Repair
MCPM	Heavy CPM	Dowel Bar Retrofit	Dowel Bar Retrofit
MCPM	Heavy CPM	Concrete Pavement Restoration	Concrete Pavement Restoration
MCPM	Heavy CPM	New Treatment Technology - Concrete Pavements	New Treatment Technology - Concrete Pavements
MCPM	Rehabilitation	Full Depth Concrete Pavement Repair	Full Depth Concrete Pavement Repair
MCPM	Rehabilitation	Underdrain Outlet Repair & Cleaning	Underdrain Outlet Repair & Cleaning
MCPM	Light CPM	Cncr Jnts Reseal	Cncr Jnts Reseal
MCPM	Heavy CPM	Multiple Course Chip Seal	Multiple Course Chip Seal
MCPM	Heavy CPM	Cape Seal	Cape Seal
MCPM	Light CPM	Fog Seal	Fog Seal
MCPM	Light CPM	Overband Crack Fill	Overband Crack Fill
MCPM	Light CPM	Overband Crack Fill	Overband Crack Fill
MCPM	Heavy CPM	Ultra-Thin Bituminous Overlay (< 20mm)	Ultra-Thin Bituminous Overlay (< 20mm)
MCPM	Heavy CPM	Cold Milling & Bituminous Overlay (< 40mm)	Cold Milling & Bituminous Overlay (< 40mm)
MCPM	Rehabilitation	Hot In-Place Bituminous Recycling	Hot In-Place Bituminous Recycling
MCPM	Heavy CPM	Single Course Micro-Surfacing	Single Course Micro-Surfacing
MCPM	Heavy CPM	Multiple Course Micro-Surfacing	Multiple Course Micro-Surfacing
MCPM	Heavy CPM	Paver Placed Surface Seal	Paver Placed Surface Seal
MCPM	Heavy CPM	Single Course Chip Seal	Single Course Chip Seal
MCPM	Heavy CPM	Slurry Seal	Slurry Seal
MCPM	Heavy CPM	Skip Patching	Skip Patching
MCPM	Heavy CPM	Bituminous Overlay (< 40mm)	Bituminous Overlay (< 40mm)
MCPM	Heavy CPM	Profile Milling	Profile Milling
MCPM	Rehabilitation	Bituminous Shoulder Work	Bituminous Shoulder Work
MCPM	Heavy CPM	Shoulder Slurry Seal	Shoulder Slurry Seal
MCPM	Heavy CPM	Shoulder Chip Seal	Shoulder Chip Seal
MCPM	Light CPM	Bituminous Crack Treatment	Bituminous Crack Treatment
MCPM	Heavy CPM	New Treatment Technology - Flex & Comp Pavements	New Treatment Technology - Flex & Comp Pavements
MSI	Reconstruction	Add 1+ lane 0.5 mi long	Add 1+ lane 0.5 mi long

MSI	Reconstruction	Reconstruct and Add Lane(s) Over 0.5 Mile Long	Reconstruct and Add Lane(s) Over 0.5 Mile Long
MSI	Reconstruction	Interchange Redesign & Upgrading	Interchange Redesign & Upgrading
MSI	Reconstruction	Left Turn Lane	Left Turn Lane
MSI	Reconstruction	Right Turn Flare	Right Turn Flare
MSI	Reconstruction	Add'l Lanes Up to 0.5 M	Add'l Lanes Up to 0.5 M
MSI	Reconstruction	Psg Relief Lns< 1.5 Mi	Psg Relief Lns< 1.5 Mi
MSI	Reconstruction	Recnst Exist, No Widen	Recnst Exist, No Widen
MSI	Reconstruction	Recnst for Sight Distan	Recnst for Sight Distan
MSI	Reconstruction	Interchange Reconstruct	Interchange Reconstruct
MSI	Reconstruction	Concrete Reconstruction	Concrete Reconstruction
MSI	Reconstruction	Bituminous Reconstruction	Bituminous Reconstruction
MSI	Rehabilitation	Multiple Course HMA Overlay on Concrete	Multiple Course HMA Overlay on Concrete
MSI	Rehabilitation	Multiple Course HMA Overlay on Composite Pavement	Multiple Course HMA Overlay on Composite Pavement
MSI	Rehabilitation	Multiple Course HMA Overlay on Flexible Pavement	Multiple Course HMA Overlay on Flexible Pavement
MSI	Rehabilitation	Recycl Existing Cncr Pv	Recycl Existing Cncr Pv
MSI	Rehabilitation	Bituminous Shoulders	Bituminous Shoulders
MSI	Reconstruction	Drn Correct, Culv Repl	Drn Correct, Culv Repl
MSI	Reconstruction	Pmphse Recnst/Repl	Pmphse Recnst/Repl
MSI	Rehabilitation	Superelevation Correcti	Superelevation Correcti
MSI	Rehabilitation	Crk & Surfac Ovr Old Pv	Crk & Surfac Ovr Old Pv
MSI	Rehabilitation	Unbonded Concrete Overlay	Unbonded Concrete Overlay
MSI	Heavy CPM	Pavement Patching	Pavement Patching
MSI	Heavy CPM	Long & Transv Jnt Rprs	Long & Transv Jnt Rprs
MSI	Rehabilitation	Minor Rehabilitation	Minor Rehabilitation
MSI	Reconstruction	Cncr Pavement Inlay	Cncr Pavement Inlay
MSI	Heavy CPM	Cncr Pv Repair & Diamond Grinding	Cncr Pv Repair & Diamond Grinding
MSI	Rehabilitation	Crush & Shape & Resurf	Crush & Shape & Resurf
MSI	Rehabilitation	Cold-In-Place Recycle & Resurf	Cold-In-Place Recycle & Resurf
MSI	Rehabilitation	Cncr Pv Rubb & Bit Resurf	Cncr Pv Rubb & Bit Resurf
MSI	Rehabilitation	Major Rehabilitation	Major Rehabilitation

MSI	Rehabilitation	Bituminous Resurfacing	Bituminous Resurfacing
MSI	Rehabilitation	Bit Resurf & Bit Shlders	Bit Resurf & Bit Shlders
MSI	Rehabilitation	Resurf, Mill & Pulver	Resurf, Mill & Pulver
MSI	Rehabilitation	Bit Resurf & Minor Widening	Bit Resurf & Minor Widening
MSI	Rehabilitation	Thin Cncr Ovr (< 7") - Ultra Thin	Thin Cncr Ovr (< 7") - Ultra Thin
MSI	Rehabilitation	Thin Cncr Ovr (> 7") - White Topping	Thin Cncr Ovr (> 7") - White Topping
MSI	Rehabilitation	Bit Resurf & Drainage Imprv	Bit Resurf & Drainage Imprv
MSI	Rehabilitation	Bit Resurf & Curb & Gutter	Bit Resurf & Curb & Gutter
MSI	Reconstruction	Reconstruct Non Freeway	Reconstruct Non Freeway
MSI	Rehabilitation	Hot Mixed Asphalt Resurfacing (One Course)	Hot Mixed Asphalt Resurfacing (One Course)
NONE	Remove	NO TREATMENT	No treatment being applied this year.
None	Remove	No Work Planned	NULL
RM	Remove	Aggregate over existing road	Placing new aggregate on an existing gravel or stone surface to replace original material that was worn off
RM	Remove	Grading a gravel road	Grading of an existing gravel or aggregate covered road
RM	Remove	Reconditioning bituminous surface >0.75 in.	Reconditioning of bituminous sufaces of any length section by scarifying when new material is added which increases the existing bituminous surface less than 0.75 inches
RM	Remove	NONE	NULL
RMP	Remove	Patching/Repairing asphalt or concrete or brick	Patching and repairing roadway surface of bituminous or concrete or brick
RMP	Remove	Snow and ice removal	Snow and ice removal
SI	Reconstruction	Adding Aux. Turn Lane	New construction of additional lanes > 0.5 miles
SI	Reconstruction	Culvert replacement	Construction of new culvert in same location of existing culvert
SI	Reconstruction	Gravel Resurface	Aggregate surface applied to a prepared subsurface
SI	Reconstruction	Paving Gravel	New material layer over prepared aggregate surface
SI	Reconstruction	Rebuild Short-Section	Reconstruction over a short section < 0.1 miles
SI	Reconstruction	Reconstruction	Complete removal and replacement of surface
SI	Reconstruction	Rehabilitation	New materail layer over repaired surface
SI	Reconstruction	Resurfacing	New material layer over non-repaired surface
BCPM	BCPM	Deck Patch	Bridge Deck Patch
BCPM	BCPM	Epoxy Overlay	Bridge Epoxy Overlay

BCPM	BCPM	HMA Cap (no membrane)	Bridge HMA Cap (no membrane)
BCPM	BCPM	Paint - Complete	Bridge Paint - Complete
BCPM	BCPM	Paint - Zone	Bridge Paint - Zone
BCPM	BCPM	Pin & Hanger Replacement	Bridge Pin & Hanger Replacement
BCPM	BCPM	Scour Countermeasures	Bridge Scour Countermeasures
BCPM	BCPM	Substructure Patch - Minor	Bridge Substructure Patch - Minor
BCPM	BCPM	HMA Overlay w/ Waterproofing Membrane	Bridge HMA Overlay w/ Waterproofing Membrane
BCSM	BCSM	Approach Pavement Relief Joints	Bridge Approach Pavement Relief Joints
BCSM	BCSM	Concrete Crack Seal	Bridge Crack Sealing
BCSM	BCSM	Concrete Seal	Bridge Concrete Sealing
BCSM	BCSM	Drain System Clean and Repair	Bridge Drain System Clean and Repair
BCSM	BCSM	Joint Repair / Replacement	Bridge Joint Repair
BCSM	BCSM	Minor Concrete Patch	Bridge Minor Concrete Patching
BCSM	BCSM	Slope Protection Repair	Bridge Slope Protection Repair
BCSM	BCSM	Spot Paint	Bridge Spot Paint
BCSM	BCSM	Superstructure Wash	Bridge Superstructure Wash
BCSM	BCSM	Vegetation Control	Bridge Vegetation Control
BRHB	BRHB	Concrete Overlay - Deep	Bridge Concrete Overlay - Deep
BRHB	BRHB	Concrete Overlay - Shallow	Bridge Concrete Overlay - Shallow
BRHB	BRHB	Substructure Repair (Extensive)	Bridge Substructure Repair (Extensive)
BRHB	BRHB	Substructure Replacement	Bridge Substructure Replacement
BRHB	BRHB	Superstructure Repair	Bridge Superstructure Repair
BRPL	BRPL	Bridge Replacement	Bridge Replacement
BRPL	BRPL	Deck Replacement	Bridge Deck Replacement
BRPL	BRPL	Superstructure Replacement	Bridge Superstructure Replacement
BSI	BSI	Deck Replacement and Widen / Add Lanes	Bridge Deck Replacement and Widen / Add Lanes
BSI	BSI	Replace Bridge and Add Lanes	Replace Bridge and Add Lanes
BSI	BSI	Superstructure Replacement and Widen / Add Lanes	Bridge Superstructure Replacement and Widen / Add Lanes
BSI	BSI	Widen / Add Lanes	Bridge Widen / Add Lanes

Michigan Transportation Asset Management Council

Asset Management Unified Work Program for FY24

The Transportation Asset Management Council (TAMC) approved this policy on June 8, 2023 as it relates to local reimbursement of TAMC activities by the RPO/MPO to local agencies.

ASSET MANAGEMENT

The resources allocated to the Metropolitan/Regional Planning Organization (MPO/RPO) from the Transportation Asset Management Council (TAMC) annual budget shall be utilized to assist in the completion of the TAMC Work Program. All work shall be consistent with the policies and priorities established by the TAMC. All invoices submitted for reimbursement of Asset Management activities shall utilize Michigan Department of Transportation (MDOT) standard invoice forms and include the required information for processing. The MPO/RPO shall complete the required products and perform tasks according to the timeframes and directives established within TAMC's data collection policies, which can be found on the TAMC website (http://www.michigan.gov/tamc). The MPO/RPO will emphasize these tasks to support the largest PA 51 agencies (agencies that certify under Public Act (PA) 51 a minimum of 100 centerline miles of road) within the planning area when resources are limited. The activities are to provide TAMC reimbursement to local agencies including the following:

TASKS

I. Training Activities
   - A. Attendance at training seminar(s) on the use of Pavement Surface Evaluation and Rating (PASER) and Inventory-based Rating System for unpaved roadways.
   - B. Represent MPO/RPO at TAMC-sponsored conferences and seminars, including attending either the Spring or Fall TAMC Conference.
   - C. Attending TAMC-sponsored Investment Reporting Tool (IRT) training seminars.
   - D. Attending TAMC-sponsored Asset Management Plan Development training seminars.

II. Roadway Inventory and Condition Data Collection Participation and Coordination
   - A. Federal Aid System:
     1. Organize schedules with PA 51 agencies within MPO/RPO's boundary for participating in Federal Aid data collection efforts; ensure all participants of data collection have access to State of Michigan travel reimbursement rates.
     2. Coordinate, participate and facilitate road surface data collection on no less than one-half of the Federal Aid System in accordance with the TAMC Policy for the Collection of

Roadway Condition Data on Federal Aid Eligible Roads and Streets.

3. Collect unpaved roadway condition data on approximately half of any unpaved Federal Aid eligible roadways using the Inventory-based Rating System developed by the Michigan Technological University's Center for Technology and Training.

B. Non-Federal Aid (NFA) System:
   1. It is required that the RPO/MPO make a formal call for interest for NFA data collection reimbursements to their respective PA 51 agencies annually, and that requests by PA 51 agencies are submitted to their respective RPO/MPO by October 1 each year to assist in the coordination of data collection priorities of the following data collection season. The RPO/MPO will allocate reimbursements for NFA data collection to PA 51 agencies according to the resources available to them in the manner that best reflects the priorities of their area and supports the TAMC work.
   2. Coordinate NFA data collection cycles with PA 51 agencies with an emphasis on the top 125 agencies.
   3. Ensure all participants of data collection understand procedures for data sharing with TAMC as well as TAMC policy and procedures for collecting NFA data.
   4. Participate and perform data collection with PA 51 agencies on an as- needed basis for the data collection of Non-Federal Aid roads when requested.
   5. The RPO/MPO will allocate funding for Non-Federal Aid data collection to PA 51 agencies according to the resources available to them in the manner that best reflects the priorities of their area and supports the TAMC work in accordance with Section VII (C).

III. Equipment
   A. Ensure rating teams have the necessary tools to complete the federal aid data collection activity by maintaining a laptop compatible with the Laptop Data Collector and Roadsoft programs, a functioning Global Positioning System (GPS) unit, and other required hardware in good working order.
   B. Communicate any equipment needs and purchases with the TAMC Coordinator; laptops are eligible for replacement on a three-year cycle.

IV. Data Submission
   A. Develop and maintain technical capability to manage regional Roadsoft databases and the Laptop Data Collector program; maintain a regional Roadsoft database that is accurate and consistent with local agency data sets.
   B. Coordinate Quality Assurance/Quality Control activities and data submission tasks according to protocols established in TAMC Data Collection Policies for Federal Aid and NFA Roads.
   C. Monitor and report status of data collection efforts to TAMC Asset Management Coordinator through monthly coordinator calls and/or monthly or quarterly program updates that are mailed with invoices.
   D. Provide links on agency websites and reports to the TAMC website, interactive maps, and dashboards for the dissemination of roadway data.

V. Asset Management Planning
   A. Participate and attend TAMC-sponsored training and workshops in order to provide technical support for Asset Management Plan development activities.
   B. Provide an annual reporting of the status of PA 51 agency Asset Management Plans and keep abreast of the status of these plans for updates and revision.
   C. Provide technical assistance and training funds to PA 51 agencies during the development of local Asset Management Plans using TAMC templates when applicable; coordinate these tasks with an emphasis on the Top 125 agencies.

VI. Technical Assistance
   A. Provide technical assistance to local agencies in using the TAMC reporting tools for planned and completed infrastructure investments or any other TAMC Work Program Activity.
   B. Integrate PASER ratings and asset management into project selection criteria:
      1. Analyze data and develop road preservation scenarios.
      2. Analyze performance of implemented projects.

VII. Bridge and Culvert Inventory and Condition Data Collection
   A. Provide administrative and technical assistance to PA 51 agencies and MDOT for reimbursement of TAMC funds for participation in data collection efforts for culvert inventory, condition assessment and data submission.
   B. Utilize TAMC reporting forms to communicate progress and expenditures of Public Act 51 agencies to assist TAMC in the Culvert Mapping Pilot Report.
   C. PA 51 agencies must submit a written request for reimbursement; the request should include a total estimate of costs (actual costs claimed must not exceed the estimated costs) for the data gathering, trained/certified team members' time, and vehicle use. It is required that the RPO/MPO make a formal call for interest for bridge and culvert collection reimbursements to their respective PA 51 agencies annually, and that requests by PA 51 agencies are submitted to their respective RPO/MPO by October 1 each year to assist in the coordination of data collection priorities of the following data collection season.. The RPO/MPO decision on what requests for reimbursement are approved may consider available budget, absence, or age of bridge data to be collected and the last year of reimbursement to the road agency for that bridge data set.

Required Products

I. PASER data for Federal Aid System submitted to TAMC via the IRT.
II. PASER data for Non-Federal Aid System submitted to TAMC via the IRT.
III. Quarterly or monthly activities reports submitted with invoices to TAMC Coordinator.
IV. Create an Annual Report of Asset Management program activities as well as a summary of annual PASER condition data by local agency, functional classification, and PA 51 Legal System; provide links to the Regional Annual Report on agency website and submit copies to TAMC Coordinator by April 1 of each year.
V. Prepare a draft status report of PA 51 agency Asset Management activities and plans within MPO/RPO boundary by September 30 of each year.

TRANSPORTATION ASSET MANAGEMENT COUNCIL STRATEGIC PLANNING SESSION

May 3, 2023 at 10:00 a.m. - 4:00 p.m.

MDOT Aeronautics Bldg., 2nd Floor Commission Conference Room
2700 Port Lansing Road, Lansing, Michigan

APPROVED MEETING MINUTES

Members Present

- Ryan Buck, MTPA
- Art Green, MDOT
- Jacob Hurt, MAR
- James Hurt, MML
- Joanna Johnson, CRA– Chair
- Kelly Jones, MAC
- Bill McEntee, CRA– Vice-Chair
- Robert Slattery, MML
- Rob Surber, DTMB/CSS
- Jennifer Tubbs, MTA

Support Staff Present

- Tim Colling, MTU/LTAP
- Cheryl Granger, DTMB/CSS
- Eric Mullen, MDOT
- Gloria Strong, MDOT via Microsoft Teams

Public Present

- David Wearsch, MDOT Finance
- Lia Michaels, Hubbell, Roth, and Clark (HRC)

Welcome – Call-To-Order
The meeting was called to order at 10:00 a.m. by Joanna Johnson
Dr. Tim Colling, Director, Michigan Technological Institute, was introduced as today's Session Moderator

J. Johnson and T. Colling gave an overview of the meeting format and meeting goals.

Dave Wearsch, MDOT Unit Manager, Finance Division provided a presentation on TAMC funding carryover and budgeting followed by questions and answers with the Council.
TAMC has $1.8 million in annual appropriation. The Michigan Infrastructure Council (MIC) has organizational authority over TAMC; however, TAMC funds are part of MDOT's budget process and therefore MDOT has fiduciary responsibility for the funds. The TAMC funds can only be used for TAMC activities authorized by the Council. The Auditor General oversees MDOT Finance. TAMC funds come from The Michigan Transportation Funds (MTF) and are state monies used for this specific purpose. TAMC makes the decisions as to how the funds allocated to them are used as long as it conforms to the law. MDOT and TAMC are in a partnership. PA 325 of 2018 states TAMC's funding come from the MIC, however this does not comport to PA 166 of 2022, Section 103 requirements. The Legislature would need to directly appropriate funds to the Department of Treasury/MIC in order to comport to PA 325 of 2018 (17), which is not the case. The MIC has a role in the organizational functions of TAMC, but the TAMC funds administered by MDOT. In 2018, the Legislature gave $2 million for culvert mapping for a one-year program funded through the MIC. The culvert funds were converted to a work project which is old year money that is used so they can complete a project which extends that out past the fiscal year end, up to four years. Dave Wearsch will ask for a work project so that TAMC funding not spent in a fiscal year does not get de-obligated. Work projects must give an estimated completion date, cost, program purpose, and how we are going to perform that purpose. This will be non-statutory. Any carry-over or unspent funds must be a qualified encumbrance. Requests for a work project must be made no later than September 15th to classify it as a work project. Dave Wearsch reviews these case-by-case. The Office of Financial Management (OFM) has until March 1 to close their books for the end of the fiscal year. Work projects are due July 1 per state budget guidelines. Dave Wearsch will look at the TAMC budget and see what TAMC has encumbered and work with the ACE Committee on a timeline. He will also check on the status of the culvert budget. It is believed that there are no remaining culvert funds per MDOT Contract Services Division. It was agreed that the budget allocations would remain the same for FY2024 and Ryan Buck will work on future language and budget regarding reimbursement to the locals through the MPOs to be placed in the work programs.

A Review of the TAMC Vision and Mission Statement
The Council agrees that the Vision Statement is still relevant.

Vision Statement:
National leader, promoting asset management principals, and practices, Guide investment decisions among Michigan's transportation agencies.

Mission Statement:
Develop and support excellence in managing Michigan's transportation assets providing advice to the Legislature, State Transportation Commission (STC), MIC, and transportation committees, promote asset management principles, provide tools and practices for road agencies, collaborate and coordinate with the Water Asset Management Council (WAMC) and other asset owners.

Council members would like to review for innovation and clarification of the tools TAMC will provide.
TAMC Legislative Responsibilities – Appendix B – PA325, PA199, PA338, and PA499
Michigan Roads and Bridges Annual Report, Transportation Asset Management Plans (TAMPs), Data Collection

TAMC's yearly cycle, key dates, and recurrent activity
MIC and WAMC Coordinated Meetings, IRT data collection, dashboards, and interactive map, annual conference, educational programs, awards program, technical assistance, data collection program guides and instructions, and trainings. The Council would like to add attending national conferences and promoting TAMC to the list. TAMC committees will develop and refine the timeline with key dates for critical TAMC decisions to be made.

Identification and Definition of Emerging Issues
-Asset Management Plan Non-compliance Provision/Process, PA325, Section 14
Data committee will review possible questions to self-assess progress toward a goal in asset management plans and identify any changes needed to the IRT. They would look into the possibility of agencies doing a self-assessment as to if they met or have made progress on their realistic goals when submitting asset management plans in successive cycles. The agencies could be asked if they made progress toward their goal, and if not, what did they change in the resubmittal of their compliance plan. Things such as weather conditions and adequate funding could be cause for agencies not to meet their goal. Governing boards will have to review the TAMP for approval including goals.

Definition and Purpose of the TAMC Statewide Investment Strategy – Bill McEntee
The Statewide Investment Strategy includes the mix of fixes and promoting asset management. It is not a literal pavement maintenance strategy at a state level.

Region Planning Organization and Metropolitan Planning Organization (RPO/MPO) TAMC Unified Work Program Items and Budget – Ryan Buck
ACE Committee is to look in to adding other items to the list of approved reimbursements such as Non-federal Aid Data Collection and how to change funds allocated to one task and switch it to another. The process of reimbursements will be reviewed. The Council would like the ACE Committee to investigate how money is given to local agencies (cities/villages/townships) from the MPO/RPOs. It was suggested that TAMC provide a guidance policy for the MPO/RPOs. Council would like ACE Committee to update the FY 2025 Unified Work Programs (UWP) activities and tasks for reimbursements from TAMC. The Council will work on the direction and expectations of the MPO/RPOs. Eric Mullen will look at the seven elements and report on the budget of each at the next TAMC meeting. Joanna Johnson and Ryan Buck to work on a new UWP that includes reimbursables. The budget will stay the same. This will go to ACE by May 17, 2023.

Motion: *Jennifer Tubbs moved, and it was seconded by Robert Slattery that the TAMC Chair and the TAMC ACE Chair work on the Asset Management Unified Work Program for FY2024 as it relates to reimbursements to the local agencies by the MPO/RPOs for TAMC related activities. All Council members* ***approved*** *the motion.*

IRT Related to Warranties and Culverts
Dave Wearsch explained approximately one year ago the Auditor General noted that counties, cities, and villages misinterpreted whether to provide project warranty information or not. The Auditor General stated MDOT must track the 617 agencies for warranties. The two systems available were ADARS and the IRT. The ADARS did not have the ability to do this. Therefore, it was chosen by MDOT to use the IRT. TAMC was not notified of the final decision to use and change the IRT for warranties. The addition to the IRT for warranties was only supposed to be a yes or no box, but that changed and if they click no, and the project is over $2 million in pavement costs, there is an additional question that must be answered.

TAMC is not the owner of the IRT as it was done with state funds. TAMC should be the main decision maker regarding anything being changed or done in the IRT. The County Road Association prints a report and provides MDOT a list of agencies that have projects under warranty. MDOT leadership does not feel MDOT or TAMC

needs to monitor the warranties.

Cheryl Granger, DTMB/CSS, provided an overview of the IRT changes relative to culverts and warranties. DNR and MSU will be sending their culvert data to MGF. The Council agreed that funds can be shifted without the Council's approval if the funds are budgeted to CSS for another task that was mandated by the Council. However, they must get it approved by Data Committee. Any changes requiring additional funding need to be approved by the Council.

The ACE and Data Committees were assigned to identify new, complete, and discontinued items in the 2022-2024 Strategic Work Program and submit to the Council in June. If the purpose of a task currently in the work program is not clear, please remove it from the committee work plan. If possible, put a timeline for each task. The Bridge Committee has already reviewed and updated the work program.

Joanna Johnson provided an overview of the intent for creating a TAMC governance document. She has created a draft and has shared it with Todd White, MDOT Bureau of Transportation Director and Eric Mullen. She will share a copy with the Council at a future Council meeting.

Joanna Johnson asked for any public comments or comments from the Council.
The Council and attendees appreciated Tim Colling moderating the session.

Adjournment
The meeting was adjourned at 4:00 p.m.