



Data Committee Meeting Agenda

Wednesday, April 24, 2019 @ 1:00 PM

**Michigan Department of Transportation Aeronautics Building
2nd Floor Commission Room
2700 Port Lansing Road
Lansing, Michigan**

- 1. Welcome - Call to Order – Introductions**
- 2. Public Comments on Non-Agenda Items**
- 3. Consent Agenda**
 - 3.1 Approval of the 3-20-19 Data Committee Meeting Minutes (*Action – Attachment 1*)
 - 3.2 TAMC Budget Update (*Attachment 2*)
- 4. Traffic Signal Pilot Efforts: Conference Call – McEntee (*Attachment 3*)**
- 5. Presentations – 2018 PASER Data Analysis, Quality Review & Forecast – Chesbro**
- 6. Review & Discussion Items:**
 - 6.1. 2018 TAMC Annual Report: Forecast Materials – *Jennett (Attachment 4)*
 - 6.2. Update on Paving Warranties and the TAMC IRT – *McEntee*
 - 6.3. Investment Reporting Compliance Review Update – *Belknap (Attachment 5)*
 - 6.4. Work Program: Target Costs/Priorities by April – *Belknap (Attachment 6)*
 - 6.5. Website/Dashboard/Investment Reporting Tool (IRT) Update – *CSS*
- 7. Public Comments**
- 8. Member Comments**
- 9. Adjournment**

The next TAMC Data Committee Meeting is scheduled for July 24, 2019 at the MDOT Aeronautics Building, 2nd Floor Commission Room, 2700 Port Lansing Road, Lansing, Michigan

Meeting Telephone Conference Line: 1-877-336-1828 Access Code: 8553654#

**TRANSPORTATION ASSET MANAGEMENT COUNCIL
DATA COMMITTEE**

March 20, 2019 at 1:00 p.m.
MDOT Aeronautics Building, 2nd Floor Commission Conference Room
2700 Port Lansing Road
Lansing, Michigan
MINUTES

****Frequently Used Acronyms Attached**

Members Present:

Bill McEntee, CRA – Chair
Rob Surber, DTMB/CSS

Jonathan Start, MTPA/KATS
Jennifer Tubbs, MTA

Support Staff Present:

Niles Annelin, MDOT
Gil Chesbro, MDOT
Cheryl Granger, DTMB/CSS
Tim Lauxmann, DTMB/CSS
Gloria Strong, MDOT

Roger Belknap, MDOT, via Telephone
Tim Colling, LTAP/MTU, via Telephone
Dave Jennett, MDOT
Tim Lemon, MDOT

Members Absent:

Bob Slattery, MML

Public Present:

Douglas Adelman, MDOT, via Telephone
Karen Howe, MDOT
Ryan Minkus, Kalamazoo County via Telephone
Aaron Verhelle, RCOC, via Telephone

Jim Hoekstra, Kalamazoo County, via Telephone
Rachel Jones, RCOC, via Telephone
Craig Newell, MDOT

1. Welcome – Call-to-Order – Introductions:

The meeting was called-to-order at 1:05 p.m. Everyone was introduced and welcomed to the meeting.

2. Public Comments on Non-Agenda Items:

None

3. Consent Agenda:

3.1. – Approval of February 20, 2019 Data Committee Meeting Minutes – *Action Item (Attachment 1)*

Motion: J. Start made a motion to approve the February 20, 2019 meeting minutes; J. Tubbs seconded the motion. The motion was approved by all members present.

3.2. – TAMC Budget Update (Attachment 2)

An updated financial report (03/15/2019) was provided to the committee. First quarter invoices are steadily coming in. They are still working on calculating how much funding is available from the Culvert Pilot Project funds.

4. Traffic Signal Pilot Efforts – B. McEntee (Attachment 3):

The Committee needs to determine which data elements for traffic signals need to be collected and placed in the TAMC IRT. B. McEntee shared a list of traffic signal data elements that he feels TAMC may want to request the agencies to collect. He requested that the committee review the list he provided, select the elements that they feel would be required for the agencies to collect, place those elements on two lists – one high priority list and the other a lower priority list, then circulate the lists to committee members for review and comment. At the April 24, 2019

Data Committee meeting the revised list will be reviewed and discussed. TAMC should include the cost of installation. They may be only interested in assets costing \$20,000 or more. It was suggested that the Committee put the lists in order by cost impact also. Some agencies such as Oakland, Kalamazoo, Grand Rapids, already have traffic signal data. Smaller agencies may not have the level of detail as larger road commissions. There are many agencies that already collect traffic signal data and TAMC may be able to get the majority of the data they need from what is already collected. Some of the data elements that were suggested during the meeting were: intersection name, location, pole type, number of poles, number of spans, expected replacement date, ownership, and adding in Americans with Disabilities Act (ADA) requirements. Adding in the ADA requirements will up the costs of modernization and/or replacement.

Action Item: All committee members must review the list that B. McEntee has provided and place the elements that they feel should be collected by the agencies in two lists, one high priority level and the other lower priority, share their lists with all committee members, then be prepared to discuss at the April 24, 2019 Data Committee meeting.

5. Presentations – 2018 PASER Data Analysis, Quality Review and Forecast – G. Chesbro:

G. Chesbro presented on the 2018 PASER Federal Aid Road data analysis and charts that he prepared for the annual report. Some counties collect data yearly and others do it every other year, so the amount of data collected from year to year changes. There has not been a large change in the condition from 2016/2017 to 2017/2018. G. Chesbro created graphs for 2015/2016 and 2017/2018 that showed the percent of lane miles that went from good to fair, fair to poor, and some poor up to fair, and some fair up to good. He also gave a review of the paved non-federal aid roads, but this is not representative of all the paved non-federal aid roads.

G. Chesbro shared graphs for the 2018 annual report model summary for both trunkline and non-trunkline sides and reviewed the data with the committee. The forecasted revenue data and past years forecasted data brought on much discussion due to significant increase in revenue in 2015. K. Howe reviewed the past few years' worth of data with the committee and explained why there was a significant difference for 2016. J. Start and J. Tubbs want more information as to why there is such a big difference in 2016 than in previous and recent years. J. Start wants to be sure he understands so he can give a clear description of why the data is different. According to K. Howe, it was because there was a significant increase in revenue during that time.

6. Review and Discussion Items:

6.1. – 2018 TAMC Annual Report Update – D. Jennett

Work on the annual report is going well. The IRT data sets are being completed. Information regarding Public Act 325, which addresses the requirement of Asset Management Plans, will be included in the report. D. Jennett is reviewing some of the new graphs that will be added into the report and will forward those graphs to the Data Committee for their review. They will be expanding on the accomplishments and incorporating items such as the Culvert Pilot Project. This information will also be sent to the Data Committee for their review once completed.

6.1.1. – PASER Reporting and Forecasts

Once the graphs are completed they will be forwarded to the Data Committee for their review.

6.1.2. – Investment Reporting Summaries

These reports will also be shared with the committee once they are completed.

6.2. – Data Requests – R. Belknap and B. McEntee

6.2.1. – March 7, 2019 Request from Southeast Michigan Council of Governments (SEMCOG) (Attachment 4)

An emailed data request was received by R. Belknap on March 7, 2019, from SEMCOG for a shapefile of road conditions throughout Michigan for federal aid roads only. They are only interested in specific fields within the IRT. The Data Committee decided to allow CSS to complete this data request.

Motion: J. Start made a motion to authorize CSS to provide the requested data to SEMCOG; J. Tubbs seconded the motion. The motion was approved by all members present.

6.2.2. – March 14, 2019 Request from the Michigan Road Preservation Association (MRPA) (Attachment 5)

An emailed data request was received by R. Belknap on March 14, 2019, from MRPA, for follow up data from an initial project that was first discussed in November 2009 and presented to legislators in August 2010. Updates were made to the maps and charts as a result of their request in 2012. They are now requesting a map of pavement conditions from 2012-2018 showing the changes in good/fair/poor by legislative regions. CSS estimates that it will take them 120-160 hours to complete this request at the cost of \$12,000-\$16,000. TAMC can request reimbursement of costs for this data request per TAMC's data request policy. The Data Committee would like support staff to request reimbursement from MRPA for this request and the request to be treated as a Freedom of Information Act (FOIA) request. The other option is for MRPA to get the information from the TAMC dashboards themselves. But because they need this data by legislative regions, CSS will need to assist with this request. R. Belknap will inform MRPA of the committee's decision and let them know the cost to provide this data request through the FOIA. This request will not go on to full Council for review and approval.

Action Item: R. Belknap will contact MRPA and inform them of the committee's decision to process this as a FOIA. If MRPA decides to go forward with doing the FOIA, R. Belknap will process the request via the FOIA process.

6.3. – Update on Paving Warranties and the TAMC IRT – B. McEntee

T. Colling recently requested that they hold a meeting after today's Data Committee meeting to discuss these subjects. TAMC support staff worked with County Road Association (CRA) to develop a warranty compliance report. In order to capture all pertinent warranty information, it was decided to add some additional questions in the IRT. T. Colling spoke with Steve Puuri, PE, at the County Road Association Conference, regarding warranties and Monday sent out a list of warranty questions to CRA associates. T. Colling shared those responses with the group. They currently have enough data regarding warranties on pavement (asphalt, concrete, or composite) projects over \$2 million in pavement to get CSS started on uploading the warranties in the IRT. MTU just got the contract to develop the training and has training coming up for non-technical (via a video or PowerPoint), elected/appointed city and county officials around July/August, and a more technical training for people handling the warranties will be done via on-site training around November/December. There are currently a few warranties already in the IRT that CSS will review for 2018/2019 projects.

Action Item: CSS will provide a listing of the current warranties in the IRT from 2018/2019 to the Data Committee.

6.4. – Investment Reporting Compliance Review Update – R. Belknap (Attachment 6)

R. Belknap provided an updated report on investment reporting compliance as of March 15, 2019 for committee review.

6.5. – Investment Reporting: Review Process Requirements for Future Projects Data and Three-year Plan Requirements – R. Belknap

CSS has begun making a "map view" function to display data by regions within the IRT and has completed a three-year project report. CSS will provide the report to the committee for their review. The estimated hours of completion for the report was 72 hours. The estimated hours for the map are 40-50 hours. The Committee would like CSS to proceed with the completion of the map per their previous request. The funds

used for these projects are already available in the current CSS budget and will not affect TAMC's current budget and will not affect other CSS work.

6.6. –Work Program: Target Estimated Costs/Priorities by April – R. Belknap (Attachment 7)

Support staff is developing a list of discussion topics for the June 5, 2019, Strategic Planning Session. It is requested that the committee review their section of the newly formatted work program provided, identify what they feel are high priority tasks, forward those to TAMC support staff by April, and be prepared to discuss at the June session. Budgeting of tasks will also be discussed. It was suggested that TAMC and the regions work with the smaller agencies to find out where they stand with an Asset Management Plan (not required of the smaller agencies), PASER data collection on the local road systems, planned projects, traffic signals and warranties. B. McEntee and J. Start felt it would be a good idea to ask if LTAP could do a mix-and-fix analysis projection using project cost, condition the system this year, and life cycle wheel data currently maintained by TAMC. B. McEntee would also like to know what would happen if we doubled the investment on 4s and 5s and, doubled the investment on heavy CPM on 5s and 6s. What would the system look like in three years? He is hoping to find funding to assist LTAP to work on this task.

6.7. – CSS Website/Dashboard/IRT Update – C. Granger

C. Granger provided a list of tasks that CSS is currently working on for TAMC:

1. CSS is close to wrapping up the RPOs and MPOs functions to the dashboards.
2. The warranty and three-year projects are still in process.
3. They will have some discussions after today's meeting with those involved with getting the culvert data into the IRT. They still need to know the multiple treatment types. R. Belknap will ask the ADARS staff about their ability to handle multiple treatment types but feels more conversation needs to be had regarding this.
4. The TAMC bridge condition dashboards are static and are not updated like the MDOT system which is updated on a regular basis. CSS needs the Bridge Committee to provide them with the bridge conditions on a regular basis in order to keep the TAMC bridge condition dashboards up-to-date.

7. Public Comments:

None

8. Member Comments:

The Data Committee scheduled meetings were reviewed.

9. Adjournment:

Motion: J. Start made a motion to adjourn the meeting; J. Tubbs seconded the motion. The motion was approved by all members present. The meeting adjourned at 3:37 p.m. The next TAMC Data Committee meeting is scheduled for April 24, 2019, at 1:00 p.m., MDOT Aeronautics Building, 2nd Floor Commission Conference Room, 2700 Port Lansing Road, Lansing.

TAMC FREQUENTLY USED ACRONYMS:	
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACE	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)
ACT-51	PUBLIC ACT 51 OF 1951-DEFINITION: A CLASSIFICATION SYTEM DESIGNED TO DISTRIBUTE MICHIGAN'S ACT 51 FUNDS. A ROADWAY MUST BE CLASSIFIED ON THE ACT 51 LIST TO RECEIVE STATE MONEY.
ADARS	ACT 51 DISTRIBUTION AND REPORTING SYSTEM
BTP	BUREAU OF TRANSPORTATION PLANNING (MDOT)
CPM	CAPITAL PREVENTATIVE MAINTENANCE

CRA	COUNTY ROAD ASSOCIATION (OF MICHIGAN)
CSD	CONTRACT SERVICES DIVISION (MDOT)
CSS	CENTER FOR SHARED SOLUTIONS
DI	DISTRESS INDEX
ESC	EXTENDED SERVICE LIFE
FAST	FIXING AMERICA'S SURFACE TRANSPORTATION ACT
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FOD	FINANCIAL OPERATIONS DIVISION (MDOT)
FY	FISCAL YEAR
GLS REGION V	GENESEE-LAPEER-SHIAWASSEE REGION V PLANNING AND DEVELOPMENT COMMISSION
GVMC	GRAND VALLEY METRO COUNCIL
HPMS	HIGHWAY PERFORMANCE MONITORING SYSTEM
IBR	INVENTORY BASED RATING
IRI	INTERNATIONAL ROUGHNESS INDEX
IRT	INVESTMENT REPORTING TOOL
KATS	KALAMAZOO AREA TRANSPORTATION STUDY
KCRC	KENT COUNTY ROAD COMMISSION
LDC	LAPTOP DATA COLLECTORS
LTAP	LOCAL TECHNICAL ASSISTANCE PROGRAM
MAC	MICHIGAN ASSOCIATION OF COUNTIES
MAP-21	MOVING AHEAD FOR PROGRESS IN THE 21 ST CENTURY (ACT)
MAR	MICHIGAN ASSOCIATION OF REGIONS
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
MDTMB	MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
MIC	MICHIGAN INFRASTRUCTURE COUNCIL
MITA	MICHIGAN INFRASTRUCTURE AND TRANSPORTATION ASSOCIATION
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
PASER	PAVEMENT SURFACE EVALUATION AND RATING
PNFA	PAVED NON-FEDERAL AID
PWA	PUBLIC WORKS ASSOCIATION
QA/QC	QUALITY ASSURANCE/QUALITY CONTROL
RCKC	ROAD COMMISSION OF KALAMAZOO COUNTY
RCOC	ROAD COMMISSION OF OAKLAND COUNTY
ROW	RIGHT-OF-WAY
RPA	REGIONAL PLANNING AGENCY
RPO	REGIONAL PLANNING ORGANIZATION
SEMCOG	SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS
STC	STATE TRANSPORTATION COMMISSION
STP	STATE TRANSPORTATION PROGRAM
TAMC	TRANSPORTATION ASSET MANAGEMENT COUNCIL
TAMCSD	TRANSPORTATION ASSET MANAGEMENT COUNCIL SUPPORT DIVISION
TAMP	TRANSPORTATION ASSET MANAGEMENT PLAN
TPM	TRANSPORTATION PERFORMANCE MEASURES

UWP	UNIFIED WORK PROGRAM
WAMC	WATER ASSET MANAGEMENT COUNCIL

S:/GLORIASTRONG/TAMC FREQUENTLY USED ACRONYMS.11.2018.GMS

DRAFT

TAMC Budget Expenditure Report



		FY17 Budget			FY17 Actual			FY18 Budget			FY18 Actual			FY19 Budget			FY19 Year to Date			FY20 Budget
			\$	Spent	Balance		\$	Spent	Balance		\$	Spent	Balance		\$	Spent	Balance		\$	
I. Data Collection & Regional-Metro Planning Asset Management Program																				
Battle Creek Area Transportation Study	1 QTR 19	\$ 20,000.00	\$ 15,444.03	\$ 4,555.97	\$ 20,500.00	\$ 20,213.36	\$ 286.64	\$ 20,500.00	\$ 2,143.27	\$ 18,356.73	\$ 20,500.00	\$ 20,500.00	\$ 2,143.27	\$ 18,356.73	\$ 20,500.00	\$ 20,500.00	\$ 2,143.27	\$ 18,356.73	\$ 20,500.00	
Bay County Area Transportation Study	1 QTR 19	\$ 20,000.00	\$ 10,794.42	\$ 9,205.58	\$ 21,100.00	\$ 8,028.84	\$ 13,071.16	\$ 21,100.00	\$ 5,210.01	\$ 15,889.99	\$ 21,100.00	\$ 21,100.00	\$ 5,210.01	\$ 15,889.99	\$ 21,100.00	\$ 21,100.00	\$ 5,210.01	\$ 15,889.99	\$ 21,100.00	
Central Upper Peninsula Planning and Development	1 QTR 19	\$ 40,471.00	\$ 40,471.00	\$ -	\$ 47,000.00	\$ 47,000.00	\$ -	\$ 47,000.00	\$ 5,487.67	\$ 41,512.33	\$ 47,000.00	\$ 47,000.00	\$ 5,487.67	\$ 41,512.33	\$ 47,000.00	\$ 47,000.00	\$ 5,487.67	\$ 41,512.33	\$ 47,000.00	
East Michigan Council of Governments	MAR	\$ 95,995.00	\$ 80,092.75	\$ 15,902.25	\$ 111,000.00	\$ 81,559.65	\$ 29,440.35	\$ 111,000.00	\$ 33,162.55	\$ 77,837.45	\$ 111,000.00	\$ 111,000.00	\$ 33,162.55	\$ 77,837.45	\$ 111,000.00	\$ 111,000.00	\$ 33,162.55	\$ 77,837.45	\$ 111,000.00	
Eastern Upper Peninsula Regional Planning & Devel.	1 QTR 19	\$ 20,000.00	\$ 20,000.00	\$ -	\$ 23,100.00	\$ 23,100.00	\$ -	\$ 23,100.00	\$ 5,943.70	\$ 17,156.30	\$ 23,100.00	\$ 23,100.00	\$ 5,943.70	\$ 17,156.30	\$ 23,100.00	\$ 23,100.00	\$ 5,943.70	\$ 17,156.30	\$ 23,100.00	
Genesee Lapeer Shiawassee Region V Planning Com.	JAN	\$ 39,423.00	\$ 37,172.06	\$ 2,250.94	\$ 46,000.00	\$ 45,954.99	\$ 45.01	\$ 46,000.00	\$ 192.91	\$ 45,807.09	\$ 46,000.00	\$ 46,000.00	\$ 192.91	\$ 45,807.09	\$ 46,000.00	\$ 46,000.00	\$ 192.91	\$ 45,807.09	\$ 46,000.00	
Grand Valley Metropolitan Council	1 QTR 19	\$ 20,000.00	\$ 18,974.64	\$ 1,025.36	\$ 25,000.00	\$ 12,060.69	\$ 12,939.31	\$ 25,000.00	\$ 1,112.35	\$ 23,887.65	\$ 25,000.00	\$ 25,000.00	\$ 1,112.35	\$ 23,887.65	\$ 25,000.00	\$ 25,000.00	\$ 1,112.35	\$ 23,887.65	\$ 25,000.00	
Kalamazoo Area Transportation Study	2 QTR 19	\$ 20,000.00	\$ 19,128.11	\$ 871.89	\$ 22,000.00	\$ 21,588.77	\$ 411.23	\$ 22,000.00	\$ 3,706.34	\$ 18,293.66	\$ 22,000.00	\$ 22,000.00	\$ 3,706.34	\$ 18,293.66	\$ 22,000.00	\$ 22,000.00	\$ 3,706.34	\$ 18,293.66	\$ 22,000.00	
Macatawa Area Coordinating Council	2 QTR 19	\$ 20,000.00	\$ 7,405.66	\$ 12,594.34	\$ 20,200.00	\$ 9,575.57	\$ 10,624.43	\$ 20,200.00	\$ 2,305.87	\$ 17,894.13	\$ 20,200.00	\$ 20,200.00	\$ 2,305.87	\$ 17,894.13	\$ 20,200.00	\$ 20,200.00	\$ 2,305.87	\$ 17,894.13	\$ 20,200.00	
Midland Area Transportation Study	1 QTR 19	\$ 20,000.00	\$ 17,660.54	\$ 2,339.46	\$ 21,000.00	\$ 20,857.81	\$ 142.19	\$ 21,000.00	\$ 1,680.88	\$ 19,319.12	\$ 21,000.00	\$ 21,000.00	\$ 1,680.88	\$ 19,319.12	\$ 21,000.00	\$ 21,000.00	\$ 1,680.88	\$ 19,319.12	\$ 21,000.00	
Northeast Michigan Council of Governments	FEB	\$ 43,426.45	\$ 43,426.45	\$ -	\$ 52,200.00	\$ 52,200.00	\$ -	\$ 52,200.00	\$ 13,906.70	\$ 38,293.30	\$ 52,200.00	\$ 52,200.00	\$ 13,906.70	\$ 38,293.30	\$ 52,200.00	\$ 52,200.00	\$ 13,906.70	\$ 38,293.30	\$ 52,200.00	
Networks Northwest	1 QTR 19	\$ 61,316.00	\$ 61,316.00	\$ -	\$ 72,000.00	\$ 71,915.46	\$ 84.54	\$ 72,000.00	\$ 10,034.74	\$ 61,965.26	\$ 72,000.00	\$ 72,000.00	\$ 10,034.74	\$ 61,965.26	\$ 72,000.00	\$ 72,000.00	\$ 10,034.74	\$ 61,965.26	\$ 72,000.00	
Region 2 Planning Commission	1 QTR 19	\$ 37,940.00	\$ 24,743.56	\$ 13,196.44	\$ 42,000.00	\$ 29,362.33	\$ 12,637.67	\$ 42,000.00	\$ 8,452.00	\$ 33,548.00	\$ 42,000.00	\$ 42,000.00	\$ 8,452.00	\$ 33,548.00	\$ 42,000.00	\$ 42,000.00	\$ 8,452.00	\$ 33,548.00	\$ 42,000.00	
Saginaw County Metropolitan Planning Commission	1 QTR 19	\$ 20,000.00	\$ 11,585.29	\$ 8,414.71	\$ 22,200.00	\$ 22,000.00	\$ 200.00	\$ 22,200.00	\$ 681.86	\$ 21,518.14	\$ 22,200.00	\$ 22,200.00	\$ 681.86	\$ 21,518.14	\$ 22,200.00	\$ 22,200.00	\$ 681.86	\$ 21,518.14	\$ 22,200.00	
Southcentral Michigan Planning Commission	1 QTR 19	\$ 53,162.00	\$ 36,915.67	\$ 16,246.33	\$ 57,300.00	\$ 37,137.28	\$ 20,162.72	\$ 57,300.00	\$ 1,913.04	\$ 55,386.96	\$ 57,300.00	\$ 57,300.00	\$ 1,913.04	\$ 55,386.96	\$ 57,300.00	\$ 57,300.00	\$ 1,913.04	\$ 55,386.96	\$ 57,300.00	
Southeast Michigan Council of Governments	MAR	\$ 135,680.00	\$ 135,679.60	\$ 0.40	\$ 174,000.00	\$ 174,000.00	\$ -	\$ 174,000.00	\$ 52,344.52	\$ 121,655.48	\$ 174,000.00	\$ 174,000.00	\$ 52,344.52	\$ 121,655.48	\$ 174,000.00	\$ 174,000.00	\$ 52,344.52	\$ 121,655.48	\$ 174,000.00	
Southwest Michigan Planning Commission	1 QTR 19	\$ 37,030.00	\$ 37,030.00	\$ -	\$ 41,000.00	\$ 41,000.00	\$ -	\$ 41,000.00	\$ 2,584.95	\$ 38,415.05	\$ 41,000.00	\$ 41,000.00	\$ 2,584.95	\$ 38,415.05	\$ 41,000.00	\$ 41,000.00	\$ 2,584.95	\$ 38,415.05	\$ 41,000.00	
Tri-County Regional Planning Commission	1 QTR 19	\$ 33,786.00	\$ 33,786.00	\$ -	\$ 40,000.00	\$ 21,680.54	\$ 18,319.46	\$ 40,000.00	\$ 3,780.24	\$ 36,219.76	\$ 40,000.00	\$ 40,000.00	\$ 3,780.24	\$ 36,219.76	\$ 40,000.00	\$ 40,000.00	\$ 3,780.24	\$ 36,219.76	\$ 40,000.00	
West Michigan Regional Planning Commission	FEB	\$ 82,467.00	\$ 82,467.00	\$ -	\$ 91,000.00	\$ 74,351.07	\$ 16,648.93	\$ 91,000.00	\$ 6,803.96	\$ 84,196.04	\$ 91,000.00	\$ 91,000.00	\$ 6,803.96	\$ 84,196.04	\$ 91,000.00	\$ 91,000.00	\$ 6,803.96	\$ 84,196.04	\$ 91,000.00	
West Michigan Shoreline Regional Development Com.	MAR	\$ 46,781.56	\$ 46,145.01	\$ 636.55	\$ 54,000.00	\$ 51,333.45	\$ 2,666.55	\$ 54,000.00	\$ 5,939.84	\$ 48,060.16	\$ 54,000.00	\$ 54,000.00	\$ 5,939.84	\$ 48,060.16	\$ 54,000.00	\$ 54,000.00	\$ 5,939.84	\$ 48,060.16	\$ 54,000.00	
Western Upper Peninsula Regional Planning & Devel.	1 QTR 19	\$ 34,867.00	\$ 34,847.53	\$ 19.47	\$ 40,000.00	\$ 40,000.00	\$ -	\$ 40,000.00	\$ 6,848.30	\$ 33,151.70	\$ 40,000.00	\$ 40,000.00	\$ 6,848.30	\$ 33,151.70	\$ 40,000.00	\$ 40,000.00	\$ 6,848.30	\$ 33,151.70	\$ 40,000.00	
MDOT Region Participation & PASER Quality Control	2/5/19	\$ 62,750.00	\$ 85,337.50	\$ (22,587.50)	\$ 80,000.00	\$ 52,914.97	\$ 27,085.03	\$ 80,000.00	\$ 9,144.00	\$ 70,856.00	\$ 80,000.00	\$ 80,000.00	\$ 9,144.00	\$ 70,856.00	\$ 80,000.00	\$ 80,000.00	\$ 9,144.00	\$ 70,856.00	\$ 80,000.00	
Fed. Aid Data Collection & RPO/MPO Program Total		\$ 965,095.01	\$ 900,422.82	\$ 64,672.19	\$ 1,116,400.00	\$ 957,834.78	\$ 158,565.22	\$ 1,116,400.00	\$ 180,903.34	\$ 935,496.66	\$ 1,116,400.00	\$ 1,116,400.00	\$ 180,903.34	\$ 935,496.66	\$ 1,116,400.00	\$ 1,116,400.00	\$ 180,903.34	\$ 935,496.66	\$ 1,116,400.00	
II. PASER Data Collection (Paved, Non-Federal-Aid System)																				
PASER PNFA Data Collection Total																				
		\$ 40,760.39	\$ 40,760.39	\$ -	<i>(FY18 PNFA Moved Into Data Collection Program Above)</i>			<i>(FY19 PNFA Moved Into Data Collection Program Above)</i>			<i>(FY20 PNFA Moved Into Data Collection Program Above)</i>									
III. TAMC Central Data Agency (MCSS)																				
Project Management	4/2/19	\$ 37,800.00	\$ 40,064.00	\$ (2,264.00)	\$ 42,000.00	\$ 46,585.00	\$ (4,585.00)	\$ 42,000.00	\$ 26,911.00	\$ 15,089.00	\$ 42,000.00	\$ 42,000.00	\$ 26,911.00	\$ 15,089.00	\$ 42,000.00	\$ 42,000.00	\$ 26,911.00	\$ 15,089.00	\$ 42,000.00	
Data Support /Hardware / Software	4/2/19	\$ 60,200.00	\$ 58,833.00	\$ 1,367.00	\$ 68,800.00	\$ 67,800.00	\$ 1,000.00	\$ 68,800.00	\$ 10,050.00	\$ 58,750.00	\$ 68,800.00	\$ 68,800.00	\$ 10,050.00	\$ 58,750.00	\$ 68,800.00	\$ 68,800.00	\$ 10,050.00	\$ 58,750.00	\$ 68,800.00	
Application Development / Maintenance / Testing	4/2/19	\$ 83,280.00	\$ 78,238.00	\$ 5,042.00	\$ 114,475.00	\$ 115,250.00	\$ (775.00)	\$ 114,475.00	\$ 31,575.00	\$ 82,900.00	\$ 114,475.00	\$ 114,475.00	\$ 31,575.00	\$ 82,900.00	\$ 114,475.00	\$ 114,475.00	\$ 31,575.00	\$ 82,900.00	\$ 114,475.00	
Help Desk / Misc Support / Coordination	4/2/19	\$ 66,600.00	\$ 65,652.00	\$ 948.00	\$ 70,200.00	\$ 68,200.00	\$ 2,000.00	\$ 70,200.00	\$ 19,100.00	\$ 51,100.00	\$ 70,200.00	\$ 70,200.00	\$ 19,100.00	\$ 51,100.00	\$ 70,200.00	\$ 70,200.00	\$ 19,100.00	\$ 51,100.00	\$ 70,200.00	
Training	4/2/19	\$ 27,600.00	\$ 29,133.00	\$ (1,533.00)	\$ 34,950.00	\$ 24,850.00	\$ 10,100.00	\$ 34,950.00	\$ 4,450.00	\$ 30,500.00	\$ 34,950.00	\$ 34,950.00	\$ 4,450.00	\$ 30,500.00	\$ 34,950.00	\$ 34,950.00	\$ 4,450.00	\$ 30,500.00	\$ 34,950.00	
Data Access / Reporting	4/2/19	\$ 47,155.00	\$ 45,696.00	\$ 1,459.00	\$ 49,575.00	\$ 52,175.00	\$ (2,600.00)	\$ 49,575.00	\$ 21,675.00	\$ 27,900.00	\$ 49,575.00	\$ 49,575.00	\$ 21,675.00	\$ 27,900.00	\$ 49,575.00	\$ 49,575.00	\$ 21,675.00	\$ 27,900.00	\$ 49,575.00	
<i>FY17 Off Budget: IRT Re-write - \$241,000</i>	9/30/17	\$ 241,040.00	\$ 260,023.00	\$ (18,983.00)																
TAMC Central Data Agency (MCSS) Total		\$ 322,635.00	\$ 317,616.00	\$ 5,019.00	\$ 380,000.00	\$ 374,860.00	\$ 5,140.00	\$ 380,000.00	\$ 113,761.00	\$ 266,239.00	\$ 380,000.00	\$ 380,000.00	\$ 113,761.00	\$ 266,239.00	\$ 380,000.00	\$ 380,000.00	\$ 113,761.00	\$ 266,239.00	\$ 380,000.00	
IV. TAMC Training & Education (MTU) Calendar Year Z1	4/15/19	\$ 210,000.00	\$ 208,658.90	\$ 1,341.10	\$ 235,000.00	\$ 219,780.57	\$ 15,219.43	\$ 235,000.00	\$ 52,680.63	\$ 182,319.37	\$ 235,000.00	\$ 235,000.00	\$ 52,680.63	\$ 182,319.37	\$ 235,000.00	\$ 235,000.00	\$ 52,680.63	\$ 182,319.37	\$ 235,000.00	
V. TAMC Activities (MTU) Z15/R1	4/12/19	\$ 70,000.00	\$ 60,253.50	\$ 9,746.50	\$ 115,000.00	\$ 114,089.32	\$ 910.68	\$ 115,000.00	\$ 23,368.80	\$ 91,631.20	\$ 115,000.00	\$ 115,000.00	\$ 23,368.80	\$ 91,631.20	\$ 115,000.00	\$ 115,000.00	\$ 23,368.80	\$ 91,631.20	\$ 115,000.00	
VI. TAMC Expenses																				
Fall Conference Expenses	12/11/18	\$ 6,000.00	\$ 8,312.40	\$ -	\$ 10,000.00	\$ 7,269.00	\$ 2,731.00	\$ 10,000.00	\$ 7,507.40	\$ 2,492.60	\$ 10,000.00	\$ 10,000.00	\$ 7,507.40	\$ 2,492.60	\$ 10,000.00	\$ 10,000.00	\$ 7,507.40	\$ 2,492.60	\$ 10,000.00	
Fall Conf. Attendance Fees + sponsorship Fees	12/11/18	\$ -	\$ 2,625.00	\$ -	\$ -	\$ 4,405.00	\$ -	\$ -	\$ 6,755.00	\$ -	\$ -	\$ -	\$ 6,755.00	\$ -	\$ -	\$ -	\$ 6,755.00	\$ -	\$ -	
Net Fall Conference	12/11/18	\$ 8,625.00	\$ 8,312.40	\$ 312.60	\$ 14,405.00	\$ 7,269.00	\$ 7,136.00	\$ 14,405.00	\$ 14,262.80	\$ 9,247.60	\$ 14,405.00	\$ 14,405.00	\$ 14,262.80	\$ 9,247.60	\$ 14,405.00	\$ 14,405.00	\$ 14,262.80	\$ 9,247.60	\$ 14,405.00	
Spring Conference Expenses	11/5/18	\$ 8,000.00	\$ 6,721.80	\$ 1,278.20	\$ 3,800.00	\$ 7,439.36	\$ -	\$ 3,800.00	\$ 10,000.00	\$ -	\$ 3,800.00	\$ 3,800.00	\$ 10,000.00	\$ -	\$ 3,800.00	\$ 3,800.00	\$ 10,000.00	\$ -	\$ 3,	

Traffic Signal Inventory: Data Fields for Consideration 2.0

Asset ID #							
Location							
Owner							
Maintaining Agency							
Full Modernization Date							
Installation Date							
Intersection Type							
GPS Location							
Pole Type	Mast Arm	Wood	Steel	Treated Steel			
Number of Poles							
Pole Foundation	Buried	Anchor Bolts	Number of Bolts 4 or 6	Inspection date			
Span Type	Box	Diagonal					
Vehicle Heads	#	LED/Incandescent	8"/12"				
Left Turn Heads	Yes/No	FLR	FYA	Protected	4 th level	Dog House	
Pedestrian Heads	Yes/No	Number	LED/Incandescent	8"/12"			
Case Signs	Yes/No	Number	LED/Incandescent	8/12"	Size		
Vehicle Detection	Yes/no						
Pedestrian Detection	Yes/no						
Preemption	Yes/No	Railroad	Fire/Ambulance				
Battery Backup	Yes/No						
Communication	Yes/No						
Cabinet							
Controller							

TAMC Examines Pavement Condition Forecast Model

As the conversation about the need for road funding continues, TAMC's annual report data has received increasing scrutiny. Sometimes with scrutiny comes questions. The TAMC welcomes these inquiries, and council members want to ensure the data TAMC provides is reliable and useful. In an effort to address questions and reaffirm the quality of the data, TAMC members spent significant time in 2018 reviewing and understanding the model that generates the annual pavement condition forecasts.

The key inputs to TAMC's pavement condition forecasting model are project costs, investment strategies and pavement condition trends. Using those inputs, the model is able to forecast potential pavement condition outcomes.

Project Costs: TAMC relies on agency data reported to the IRT to generate project costs by fix type. As the IRT database continues to grow, that data becomes even stronger. This is why it is so important that road agencies provide complete information about their projects to the IRT. TAMC recently analyzed and updated its estimates of project costs; those new costs were a factor in this year's projection of future pavement condition.

Investment Strategies: Divining investment strategies for 615 road agencies to create one forecast for the state as a whole is challenging. Every agency makes its own investment decisions, and those can range from a broad program of light CPM to a limited program of costly full reconstructions, at each agency's discretion. To generate an investment strategy that can be used to forecast pavement condition in the future, TAMC relies on historical agency investment data reported to ADARS. ADARS data is required financial reporting done by agencies every year, and the data is subject to audit. The model assumes that future investment strategy will mirror past investment strategy and extrapolates future investment based on past actions. The model's investment strategy does include known increases in funding, such as resulted from the 2015 transportation funding package, but it can't anticipate unexpected financial actions such as a new road millage or allocation of additional state general funds.

Pavement Condition Trends: TAMC's pavement condition database is perhaps the most robust of all, with years of reliable data collected by agencies across the state. But modeling pavement condition *trends* is another matter. In 2009, TAMC and Michigan road agencies began collecting pavement data over two years, rather than every year, to lower data collection costs and limit the time required of agency staff. This means that TAMC pavement condition trend analysis actually assesses change in the pavements over a four-year period. A lot can happen to the road network in four years, particularly when funding to sustain road condition is inadequate.

That reality had an impact on the 2016 TAMC pavement condition forecast. For the 2016 TAMC Annual Report, the pavement condition trend analysis focused on the deterioration of pavements from 2012/13 to 2014/15. The trend was distinctly negative during that time frame, as shown in Figures 1 & 2. The curve for just those four year shows good roads deteriorating and poor roads increasing at sharply faster rates than the trend overall.

Paved Federal-Aid Road Condition

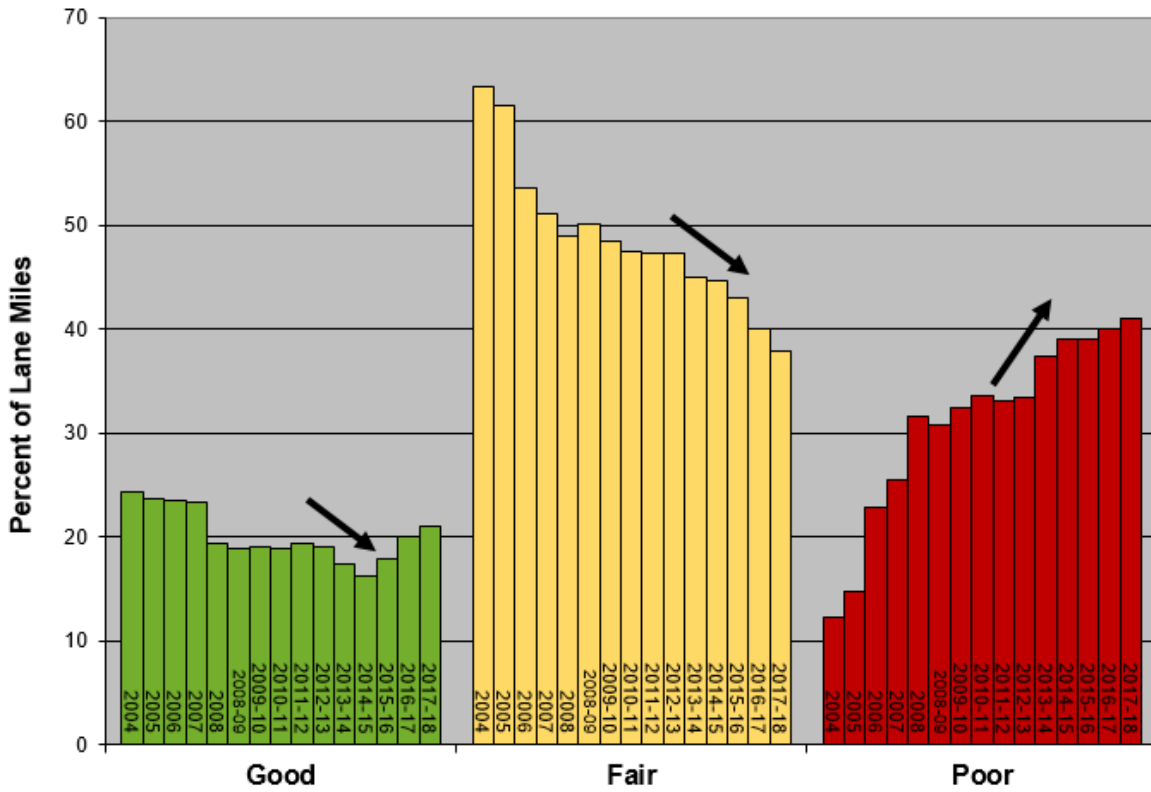


Figure 1. Condition Trends

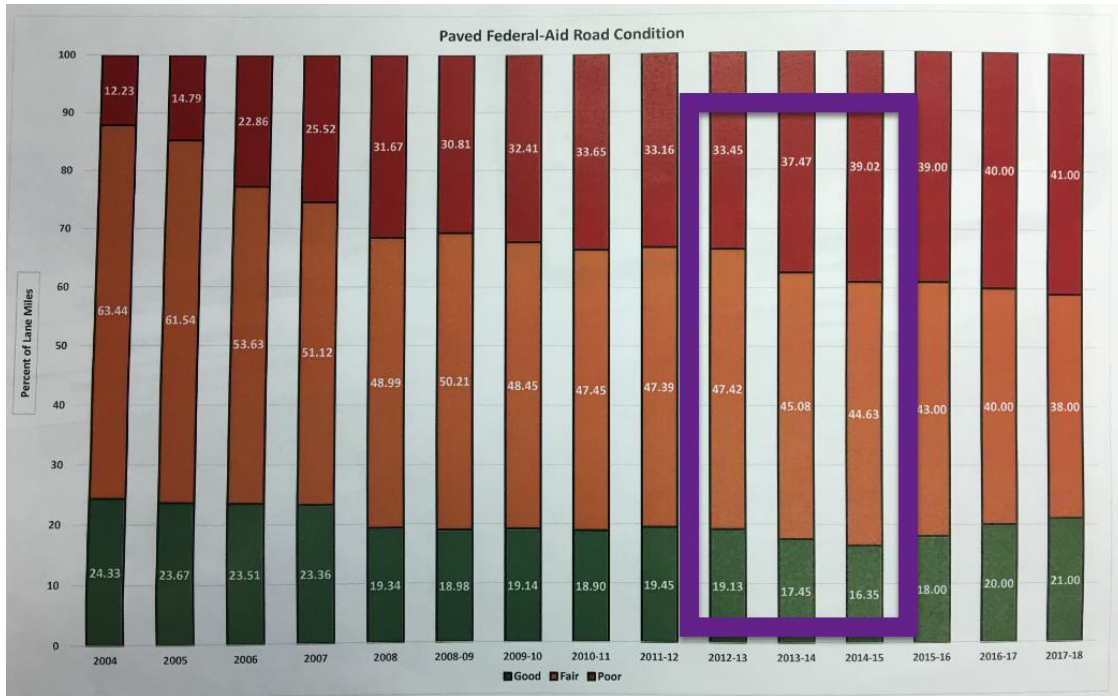


Figure 2. Condition Trends

TAMC’s model applied that short-term trend to the miles of pavement that had not been improved in the 2014/15 data collection cycle and forecast their 10-year deterioration based on it. The additional revenue resulting from the 2015 transportation funding package was included in the forecast, but because the deterioration curve was so acute, and the trend magnified over time, the 2016 10-year forecast was much bleaker than the year before, as seen in Figure 3 and Figure 4 for the 2015 ad 2016 forecasts respectively.



Figure 3. 2015 Forecast

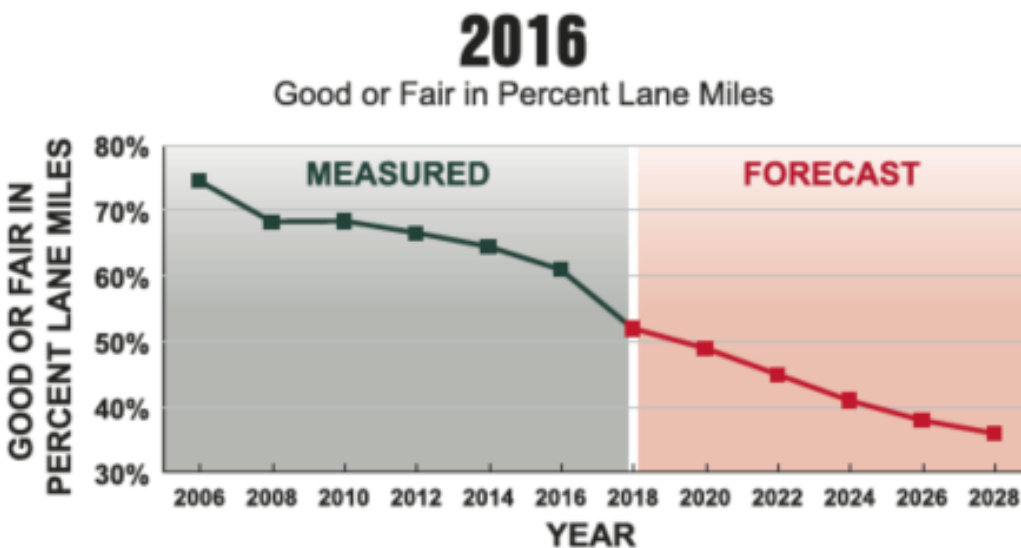


Figure 4. 2016 Forecast

The following year, analyzing the pavement condition trends from 2013/14 to 2015/16, the poor pavements continued to increase more sharply than the trend overall, but the good pavements reversed their deterioration, flattening the overall deterioration curve. In addition, the forecast in the 2017 report relied fully on the revenue levels created by the 2015 transportation funding package. This resulted in a more optimistic 10-year pavement condition forecast, as seen in Figure 5 (2017 forecast).

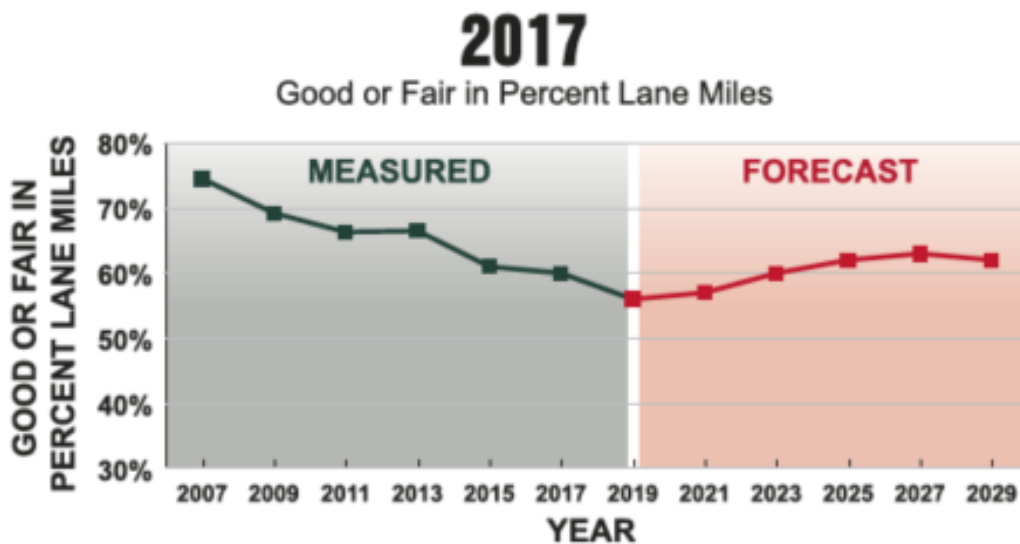


Figure 5. 2017 Forecast

With the 2018 report forecast, Figure 6 (2018 forecast) TAMC chose to include the history as well. What this helps to show is that even though pavement deterioration may have stabilized for the near future, there's no denying how far the condition of our roads has fallen over the past ten years.



Figure 6. 2018 Forecast

Pavement condition forecasting is not a perfect science. It is as good as the data it relies on, and some TAMC data, such as project cost information, continues to evolve and grow more robust. The data collection cycle can have an impact as well, depending on the mix of urban and rural communities that submit data each year, and that impact can be exacerbated by the two-year data collection cycle. The model cannot account for events beyond TAMC’s control – such as weather or local or state investment decisions – that can impact pavement condition trends in the short term in unexpected ways.

There are clearly limits to our ability to forecast the future. TAMC will continue to work to improve its data and its forecasts in the years to come. Despite current limitations, however, Figure 7 (*comparison of forecasts to reality*) shows that TAMC’s forecasts from the past have generally been in line with reality.

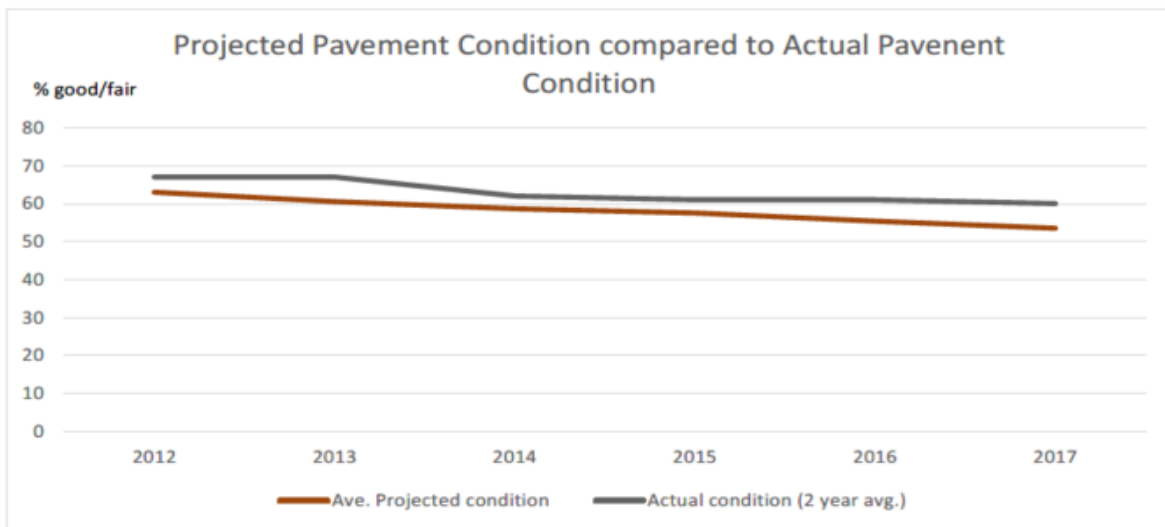


Figure 7. Comparison of forecast to actual pavement condition

Summary Statistics – TAMC Investment Reporting Compliance

As of April 19, 2019

Fiscal Year 2016

Counties	
Agencies Approved for Investment Reporting	83
Cities/Villages	
Agencies Approved for Investment Reporting	526
Not Approved: #1 – No Data or IRT User	1
Not Approved: #2 – IRT & ADARS Not Matching	4
Not Approved: #3 – IRT Status Not Updated	1
Agency Not Yet Reported (Not Yet Due or Extension)	1
MDOT – Approved for Investment Reporting	1

Fiscal Year 2017

Counties	
Agencies Approved for Investment Reporting	83
Cities/Villages	
Agencies Approved for Investment Reporting	524
Not Approved: #1 – No Data or IRT User	2
Not Approved: #2 – IRT & ADARS Not Matching	2
Not Approved: #3 – IRT Status Not Updated	4
Agency Not Yet Reported (Not Yet Due or Extension)	1
MDOT – Approved for Investment Reporting (3-5-18)	1

Fiscal Year 2018

Counties	
Agencies Approved for Investment Reporting	18
Not Approved: #3 – IRT Status Not Updated	5
Not Approved: #4 – Needs to complete survey	3
Agencies Not Yet Due for Reporting	57

Cities/Villages	
Agencies Approved for Investment Reporting	400
Not Approved: #1 – No IRT User or Data	2
Not Approved: #2 – IRT & ADARS Not Matching	0
Not Approved: #3 – IRT Status Not Updated	69
Not Approved: #4 – Needs to complete survey	8
Agency Not Yet Reported (Not Yet Due)	54

MDOT – Not Yet Due for Reporting 1

Fiscal Year 2019

Counties	
Agencies Not Yet Due for Reporting	83

Cities/Villages	
Agencies Approved for Investment Reporting	2
Not Approved: #1 – No IRT User or Data	0
Not Approved: #2 – IRT & ADARS Not Matching	0
Not Approved: #3 – IRT Status Not Updated	2
Not Approved: #4 – Needs to complete survey	0
Agency Not Yet Reported (Not Yet Due)	529

MDOT – Not Yet Due for Reporting 1

RAB 4-19-19

DRAFT FOR DISCUSSION WORK PROGRAM

ITEMS NOT CHARGED TO TAMC - sorted by frequency and work product

reference to 2017-2019 Work Program on website	Category	Work Product	Budgeted item?	Budget Assigned (or to be assigned)	Tasks	Frequency	2020	2021	2022	Notes
PA 325 New Item	AM Plans	AM Plans	No Charge	TAMC Support Staff	Evaluate AM Plan submissions and make recommendations regarding compliance for agencies with >100 miles	Annually	X	X	X	Because of PA 325
Publications 1.a.i	Annual Report	Annual Report	No Charge	TAMC Support Staff	Compile and submit Annual Report to Legislature by May	Annually	X	X	X	
PA 325 addendum 6.a	Budget	Budget	No Charge	TAMC Support Staff	Develop annual budget; including changes to address PA 325 requirements	Annually	X	X	X	
Proposed New Item	Data Collection	Bridge data	No Charge	MDOT	Provide data on bridge condition	Annually	X	X	X	Broke out bridge separately because it's a different process
Public Outreach 3.a.i	Outreach	AM Plans	No Charge	TAMC Support Staff	Promote agencies with AM plans that are high performers	Annually	X	X	X	Recognized with awards; is that sufficient?
Publications 1.b.ii & iii	Outreach	Annual Report	No Charge	TAMC Support Staff	Get feedback from conference attendees regarding use of annual report	Annually	X	X	X	
Improved Communication 3.a.i - 3.a.iii	Outreach	Support TAMC Partner Agencies at Conferences	No Charge	TAMC Support Staff	Develop schedule of conferences and coordinate TAMC attendees	Annually	X	X	X	
Public Outreach 3.a.i.	Outreach	TAMC Awards	No Charge	TAMC Support Staff	Recognize outstanding agency performance with awards at spring conference	Annually	X	X	X	
Training & Education 3.a.ii	Training/ Education	Legislative Education	No Charge	TAMC	TAMC members to find sponsors and coordinate announcement event with legislators for annual report	Annually	X	X	X	reworded; this is not a function that can be performed by state employees
Proposed New Item	Training/ Education	Training	No Charge	TAMC Support Staff	Coordinate TAMC attendees at IRT and PASER training	Annually	X	X	X	Routinely need volunteers for UP training events
PA 325 New Item	Coordination	PA 325	No Charge	TAMC Support Staff	Attend/monitor WAMC meetings	Ongoing				
PA 325 New Item	Coordination	PA 325	No Charge	TAMC Support Staff	Attend/monitor MIC meetings	Ongoing				
PA 325 addendum 4.a	Coordination	PA 325	No Charge	?	Work with WAMC/MIC to develop coordinated approach to condition assessment	Ongoing				
PA 325 addendum 4.c	Coordination	PA 325	No Charge	?	Coordinate with WAMC/MIC on transparency and what needs to be shared	Ongoing				

reference to 2017-2019 Work Program on website	Category	Work Product	Budgeted item?	Budget Assigned (or to be assigned)	Tasks	Frequency	2020	2021	2022	Notes
Data Analysis/Resarch 1..a.ii; Project and Investment Reporting 4.a.i	Data Collection	Investment data	No Charge	TAMC Support Staff	Perform QC on IRT data & report on quality of information	Ongoing				
Project and Investment Reportingg 2.a.i - ii	Data Research or Analysis	Performance Measures	No Charge	TAMC Support Staff	Monitor IRT compliance; analyze and report monthly	Ongoing				
Publications 3.a.1. - b.ii.	Outreach	Newsletter "Bridge"	No Charge	MTU	Provide 4 articles per year; develop schedule w/ milestones & who is writing each article	Ongoing				consolidated from previous work program
Public Outreach 1.a.1.	Outreach	Press Releases	No Charge	TAMC Support Staff	Publish press releases as appropriate; at a minimum for conferences, annual report, and award winners	Ongoing				
Publications 2.a.i.	Outreach	Website	No Charge	TAMC Support Staff	Provide simple website updates as needed	Ongoing				Split out to allow TAMC support staff to do the simple updates
Performance Measures 1.a.iv.	Performance Measures	AM Plans	No Charge	TAMC Support Staff	Report monthly on number of AM Plans received per PA 325	Ongoing				
Performance Measures 1.a.v.	Performance Measures	Budget	No Charge	TAMC Support Staff	Report on TAMC budget status monthly	Ongoing				
Performance Measures 1.a.ii.	Performance Measures	Data Collection	No Charge	TAMC Support Staff	Report on IRT compliance monthly	Ongoing				Removed ADARS from task
Proposed New Item	Performance Measures	Meetings	No Charge	TAMC Support Staff	Meeting Preparation for TAMC and committee meetings each month	Ongoing				Added for balance
Performance Measures 1.a.i.	Performance Measures	Performance Measures	No Charge	TAMC Support Staff	Implement Annual Work Program; report progress monthly	Ongoing				
Performance Measures 2.a.i	Performance Measures	Performance Measures	No Charge	TAMC Support Staff	Identify and eliminate duplication of effort	Ongoing				Reworded slightly
Performance Measures 1.a.iii.	Performance Measures	Road data	No Charge	TAMC Support Staff	Report on Road Data Collection progress Monthly	Ongoing				
Public Outreach 3.a.ii	Outreach	TAMC Awards	No Charge	TAMC Support Staff	Evaluate and update awards selection process	TBD One and Done				
PA 325 addendum 6.a	Budget	PA 325	No Charge	MDOT	Identify staff needed to comply with PA 325	TBD One and Done	X			Draft policy for submittal/review of AM plans being discussed by ACE

reference to 2017-2019 Work Program on website	Category	Work Product	Budgeted item?	Budget Assigned (or to be assigned)	Tasks	Frequency	2020	2021	2022	Notes
BUDGETED ITEMS - sorted by budget assignment and frequency										
FY 2020										
I. Data Collection & Regional-Metro Planning AM Program						\$	1,116,400			
III. TAMC Central Data Agency (MCSS)						\$	380,000			
IV. TAMC Training & Education (MTU) Calendar Year Z1						\$	220,000			
V. TAMC Activities (MTU) Z15/R1						\$	120,000			
VI. TAMC Expenses and Conferences						\$	20,000			
Total						\$	1,876,400			
Project & Investment Reporting 1.a.iii	Training/ Education	Investment data	Budgeted	CSS	<i>Provide IRT training</i>	Annually	X	X	X	Not explicit in the original work program
Project & Investment Reporting 3.I	Data Collection	Investment data	Budgeted	CSS	<i>Update IRT Technology as needed</i>	Annually				Not explicit in the original work program
Proposed New Item	Training/ Education	Performance Measures	Budgeted	CSS	<i>Identify IRT attendees success/failure & report results</i>	Annually	X	X	X	Modeled after PASER training recommendation
Public Outreach 2.1.i. - 2.b.i.	Outreach	Dashboards	Budgeted	CSS	Update dashboards as needed to reflect updated data	Ongoing				
Public Outreach 2.1.ii	Outreach	Dashboards	Budgeted	CSS	Determine the need for additional dashboards due to PA 325	Ongoing				
Data Collection 5.a.i.	Data Collection	Framework	Budgeted	CSS	Ensure Framework Base Map is as current as possible by updating data sets and seeking input from raters and users	Ongoing				Big lift by CSS this year to overhaul Framework and data maintenance of layers - does this address this item?
Publications 2.a.i (implied)	Outreach	Interactive Maps	Budgeted	CSS	Coordinate map updates with data updates	Ongoing				
Publications 2.a.i (implied)	Outreach	Interactive Maps	Budgeted	CSS	Continue to upgrade interactive maps	Ongoing				
Data Analysis/Resarch 2	Data Collection	Investment data	Budgeted	CSS	<i>Collect and store IRT data</i>	Ongoing				Not explicit in the work program, but a budgeted item
Public Outreach 5.a.i	Outreach	Mobile Apps	Budgeted	CSS	Maintain mobile apps	Ongoing				
Data Analysis/Resarch 2	Data Collection	Road data	Budgeted	CSS	<i>Store road and bridge data</i>	Ongoing				Not explicit in the work program, but a budgeted item

reference to 2017-2019 Work Program on website	Category	Work Product	Budgeted item?	Budget Assigned (or to be assigned)	Tasks	Frequency	2020	2021	2022	Notes
Publications 2.a.i.; Public Outreach 4.a.i.iii	Outreach	Website	Budgeted	CSS	Provide the more complicated website updates as needed and maintain website	Ongoing				Split out to allow TAMC support staff to do the simpler updates
Proposed New Item	Performance Measures		Budgeted	CSS	Report quarterly on dashboard analytics	ongoing				New item TAMC has requested
Publications 2.b.iv.	Performance Measures	Knowledge Transfer	Budgeted	CSS	Knowledge transfer for self-service maintenance	ongoing				
Data Analysis/Research 2.a.i - iii	Data Research or Analysis	Data Storage & Reports	Budgeted	CSS	Update requirements for data storage and reports working w/ stakeholders	TBD One and Done				
Data Storage/Research 2.a.iii	Data Research or Analysis	Data Storage & Reports	Budgeted	CSS	Make recommendations for optimal data storage and reporting	TBD One and Done				Data Committee assigned this high priority
Data Analysis/Research 1.a.i.	Data Research or Analysis	Data Storage & Reports	Budgeted	CSS	Integrate PASER & IRT	TBD One and Done				May need consultant for study on methodology
Data Collection 1.a.i (implied)	Data Collection	Road data	Budgeted	MDOT	Perform QC on PASER ratings and report results	Ongoing				
Training & Education 4.a.iii	Training/ Education	Training	Budgeted	MTU	Provide training for development of agency AM plans, focusing on agencies with > 100 miles	Annually	X	X	X	Reworded in response to PA 325
Training & Education 2.a.i - iii	Training/ Education	Bi-Annual Conference	Budgeted	MTU	Identify conference attendees, success/failure & report results	Annually	X	X	X	
Training & Education 1.a.i - iii	Training/ Education	Performance Measures	Budgeted	MTU	Identify PASER/IBR training attendees, success/failure & report results	Annually	X	X	X	
Project & Investment Reporting 4.ii (implied)	Data Research or Analysis	Road data	Budgeted	MTU	Update Average Project Cost data annually	Annually	X	X	X	Not explicit regarding annual updates in work program
Training & Education 1.a.i - iii	Training/ Education	Road data	Budgeted	MTU	Provide PASER and IBR training	Annually	X	X	X	
Training & Education 5.a.i - iii	Training/ Education	Training	Budgeted	MTU	Identify any training gaps or informational tools needed	Annually	X	X	X	
Training & Education 4.a.ii	Training/ Education	Training	Budgeted	MTU	Update training as necessary	Ongoing				
Data Collection 6.a.ii	Data Research or Analysis	Road data	Budgeted	MTU	Maintain Markov model in working order	Ongoing				
Data Collection 6.a.i	Outreach	Road data	Budgeted	MTU	Promote use of Roadsoft by Act 51 agencies	Ongoing				

reference to 2017-2019 Work Program on website	Category	Work Product	Budgeted item?	Budget Assigned (or to be assigned)	Tasks	Frequency	2020	2021	2022	Notes
Training & Education 6.a.i	Training/ Education	Training	Budgeted	MTU	<i>Develop training on Coordination with Utilities</i>	TBD One and Done				This was a TBD in the previous work program, awaiting outcome of 21st CIC recommendations
PA 325 Proposed New Item	Data Collection	PA 325	Budgeted	MTU	<i>Data Governance and standards for signals</i>	TBD One and Done		X		per PA 325
PA 325 addendum 5.a	Data Collection	PA 325	Budgeted	MTU	Data Governance and standards for culverts	TBD One and Done	X			
PA 325 Proposed New Item	Performance Measures	PA 325	Budgeted	MTU	<i>Develop Culvert Measures of Success</i>	TBD One and Done	X			
PA 325 addendum 1.a	Training/ Education	PA 325	Budgeted	MTU	Revise Training Programs as needed to comply with PA 325	TBD One and Done				
PA 325 addendum 2.b	Outreach	Road data	Budgeted	MTU	Make asset deterioration rates available to the public	TBD One and Done				MTU reported on their study of pavement lifecycles - full report on TAMC website - does this meet the intent of making rates available to public?
Training & Education 4.a.i.	Training/ Education	Training	Budgeted	MTU	Develop training on the operational aspects of AM	TBD One and Done		X		
Data Collection 4.a.i. (TBD)	AM Plans	AM Plans	Budgeted	REGIONS	<i>Work with agencies with greater than 100 miles to develop AM plans</i>	Annually	X	X	X	per PA 325
Training & Education 3.a.i	Outreach	Legislative Education	Budgeted	REGIONS	Provide report on road and bridge conditions by legislative district	Annually	X	X	X	Most RPO/MPOs do an annual PASER report that includes this info; these reports are in UWP already but we don't call out legislative districts
Data Collection 1.a.i.	Data Collection	Road data	Budgeted	REGIONS	Collect PASER data on no less than 1/2 FA paved	Annually	X	X	X	
Data Collection 4.a.i. (TBD)	Data Collection	Road data	Budgeted	REGIONS	<i>Focus efforts to collect data from agencies with > 100 miles in keeping with schedule for AM plan submissions</i>	Ongoing				Data Committee assigned this lower priority. But PA 325 requires it
Training & Education 2.a.i	Training/ Education	Bi-Annual Conference	Budgeted	TAMC Support Staff	Coordinate 2 educational conferences per year	Annually	X	X	X	
Improved Communication 2.a.i.	Data Collection	Road data	Budgeted	TAMC Support Staff	Provide monthly Regional Coordinator conference calls from April through December each year	Ongoing				

reference to 2017-2019 Work Program on website	Category	Work Product	Budgeted item?	Budget Assigned (or to be assigned)	Tasks	Frequency	2020	2021	2022	Notes
PROPOSED ITEMS NOT YET BUDGETED OR ASSIGNED - sorted by work product										
Improved Communication 2.a.iv	Annual Report	Annual Report			<i>Develop a plan to improve familiarity with TAMC annual report</i>	TBD One and Done				ACE gave this medium priority; Previous work program referred to "marketing plan" Still a necessity with the overhaul of the report format last year?
Project and Investment Reporting 1.suggested.ii	Data Research or Analysis	Bridge data			<i>Compare & analyze Bridge condition and IRT planned bridge project data</i>	TBD One and Done				Data Committee assigned this high priority; Broke Bridge and pavement into separate work items
PA 325 Addendum 4.b	Coordination	Coordinate with WAMC/MIC			Define age of construction across assets	TBD One and Done				
Data Analysis/Research 3.a.i	Data Research or Analysis	Forecasting			<i>Develop condition forecasting tool that uses IRT planned project data</i>	TBD One and Done				Data Committee assigned this medium priority
Data Collection 5.a.ii	Data Collection	FRAMEWORK			Develop RFP to assess whether Framework base map is accurate	TBD One and Done				Recommend letting new data maintenance strategies of the updated Framework go into effect before putting resources towards this item
Data Collection 2.a.i.	Data Collection	Road data			Research cost-effectiveness of data collection effort	TBD One and Done				Data Committee assigned this high priority, but would like better costs per mile first; On hold until better data available based on new data collection policy
Data Collection 2.a.i.	Data Collection	Road data			<i>Develop data for costs-per-mile of data collection</i>	TBD One and Done				Added in order to determine cost effectiveness as identified just above
PA 325 addendum 2.a	Data Research or Analysis	Road data			Develop an understanding of asset deterioration	TBD One and Done				MTU reported on their study of pavement lifecycles - full report on TAMC website; is this one completed?
Project and Investment Reporting 1.suggested.ii	Data Research or Analysis	Road data			<i>Compare PASER data and IRT planned road project data</i>	TBD One and Done				Data Committee assigned this high priority; Broke bridge and pavement into separate work items

reference to 2017-2019 Work Program on website	Category	Work Product	Budgeted item?	Budget Assigned (or to be assigned)	Tasks	Frequency	2020	2021	2022	Notes
Proposed New Item	Data Research or Analysis	Road data			<i>Develop means to upload 3 year capital project data to IRT from electronic STIP/TIPs</i>	TBD One and Done				This was proposed at a recent meeting
Public Outreach 6.a.i.	Outreach	Social Media			Explore social media platforms	TBD One and Done				ACE gave this medium priority
Training & Education 7.a.ii	Outreach	Website			Pilot two 90 second videos	TBD One and Done				There will be a video on MIC website; does that address this?
PA 325 addendum 5.c	Data Research or Analysis	Technology			Identify technology that may expedite data collection for PA 325 requirements	TBD One and Done				