

Roadsoft Users Conference of the US 2016

# Michigan Transportation Asset Management Council & Center for Shared Solutions



Rog Belknap, TAMC Coordinator



Mark Holmes, DTMB

Dave Jennett, CSS



Melissa Carswell, MDOT





## ❖ Transportation Asset Management Council

- Brief Overview of TAMC
- Roles & Responsibilities
- Data Collection – Management Cycle

## ❖ Department of Technology Management & Budget

- Overview of the Michigan Geographic Framework
- Future technology updates for GIS data management

## ❖ Center for Shared Solutions

- Interaction between Roadsoft and Investment Reporting Tool (IRT)
- Overview of IRT application re-write by CSS for 2017

## ❖ Department of Transportation

- Traffic Data Management
- Update



## *Michigan – A Home Rule State*

### ❖ 617 Agencies with Road Ownership

- 83 Counties
- 533 Cities and Villages
- MDOT

### ❖ Partners in Management

- 1,240 Townships
- 14 Planning Regions
- 15 Metro Planning Agencies
- Consultants & Contractors





Michigan  
Transportation Asset  
Management Council

# Public Act 499 of 2002

*All public roads in Michigan will be managed using the principles of Asset Management*

– Michigan Legislature



- Act Creates Transportation Asset Management Council – TAMC
- Advisory to State Transportation Commission
  - ✓ Asset Management Process
  - ✓ Tools and Education
  - ✓ Statewide Asset Management Strategy
  - ✓ Federal Aid System First
- Partnership for Deployment with Metro & Regional Planning Agencies
- Reporting of Conditions & Investments



Michigan  
Transportation Asset  
Management Council

# 2016 Council



Joanna Johnson  
Chair (CRA)



Bill McEntee  
Vice Chair (CRA)



Derek Bradshaw  
(MAR)



Don Disselkoen  
(MAC)



Dale Kerbyson  
(MML)



Bob Slattery  
(MML)



Jon Start  
(MTPA)



Jennifer Tubbs  
(MTA)



Brad Wieferich  
(MDOT)



Dave Wresinski  
(MDOT)



Rob Surber  
(DTMB – CSS)



Michigan  
Transportation Asset  
Management Council

# Support & Partners



TAMC Support Division, Bureau of Transportation Planning (MDOT)



Tim Colling, PhD. P.E.  
(MTU - CTT)



Dave Jennett  
(DTMB - CSS)

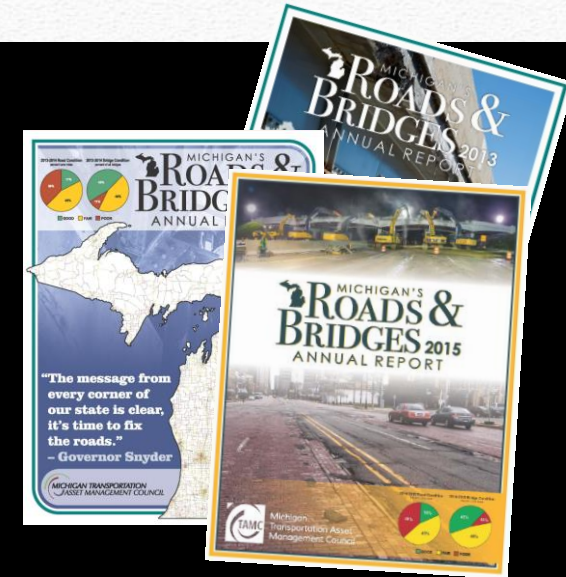




Michigan  
Transportation Asset  
Management Council

# Deliverables

- ✓ Workshops, Conferences and Trainings
- ✓ PASER Data Collection
  - +/- 163,000 lane miles of Federal Aid
  - +/- 33,740 lane miles of Non-federal Aid Paved roads rated
- ✓ Continued Publication of Michigan's Roads & Bridges Annual Report
- ✓ Recognition of Achievement through Carmine Palombo Award & TAMC Organizational Award
- ✓ Dashboards & Interactive Maps





**MDOT Department of Transportation**

Michigan.gov Home | ADARS Home | Contacts | FAQs | Help | Welcome, BelknapR | Sign Out

Notices | Report Status | Report Contact | Verify/Submit Report | Change Agency FY | Approve/Reject Report | County: Oceana | FY End: 12/31/15

Capacity Improvements | Township Mileage | Township Expenditures | **Asset Management**

**ASSET MANAGEMENT**

No Data/Project Exist for the Reporting Period

The Total Project Cost is required for work completed to open the road to traffic during the fiscal year (i.e. no other work needs to be done for this project number).  
Improvement Type: This will be the most significant for the project (i.e. multiple improvement type could be done for the project).  
This page must be completed for fiscal years ending after September 30, 2014.  
For more information about the Asset Management page please [click here](#).

Improvement Type	Project ID	Total Project Cost	Date Open To Traffic	Pavement Type
Multiple Course Chip Seal		\$20,061.08	06/30/2015	Asphalt
Multiple Course Chip Seal		\$26,261.34	06/30/2015	Asphalt
Multiple Course Chip Seal		\$29,436.10	06/30/2015	Asphalt
Multiple Course Chip Seal		\$27,047.97	06/30/2015	Asphalt
Multiple Course Chip Seal		\$32,802.47	06/30/2015	Asphalt
Multiple Course Chip Seal		\$24,242.32	06/30/2015	Asphalt
Multiple Course Chip Seal		\$24,363.34	06/30/2015	Asphalt
Multiple Course Chip Seal		\$24,538.82	06/30/2015	Asphalt

**State of Michigan  
DEPARTMENT OF TRANSPORTATION  
LANSING  
(Date)**

RICK SHIFFER  
DIRECTOR

KIRK T. STECKLE  
DIRECTOR

Dear Street Administrator:

The (Act 51 Agency) is in non-compliance with the Act 51 reporting requirements. I have rejected the ADARS report for the following reason:

The (Act 51 Agency) has not complied with the Asset Management reporting requirement found in MCL Section 247.636a(7).

To fulfill this requirement, please complete the following steps:

- Go to the Investment Reporting Tool (IRT) and enter the road and bridge projects completed during the fiscal year ended (sometimes after Oct 1, 2015).
- In the IRT, update the status of road and bridge projects to "completed" (even if there were no projects to report during this period).
- In ADARS, on the Asset Management page, uncheck the box "No Data/Project Exist for the Reporting Period". Leave the page and select it again to have the information loaded from the IRT.
- In ADARS, on the Asset Management page, verify all road project data from the IRT is now present and enter cost information for those projects and resubmit your ADARS Report.
- NOTE: If there were no IRT road projects, then checking the box indicating "No Data/Project Exist for the Reporting Period" is still valid and you may resubmit your ADARS report.

Please contact Roger Belknap, TAMC Coordinator, at (517) 373-2249, or [belknap@mdot.state.mi.us](mailto:belknap@mdot.state.mi.us) if you have questions about how to bring your agency back into compliance with Act 51 Asset Management reporting requirements.

Information on training for filling out the IRT (including on-line tutorials) can be found at: <http://tams.michigan.gov/act51/TAMC%20training>

The due date for correcting and resubmitting your report is (month) 15, after which the (Act 51 Agency) will continue to be in non-compliance and future disbursements of MTF will be withheld.

Please let us know if you have any questions.

Thank you.

Lois Cahn, Financial Specialist  
MDOT, Financial Operations Division  
(517) 335-2556

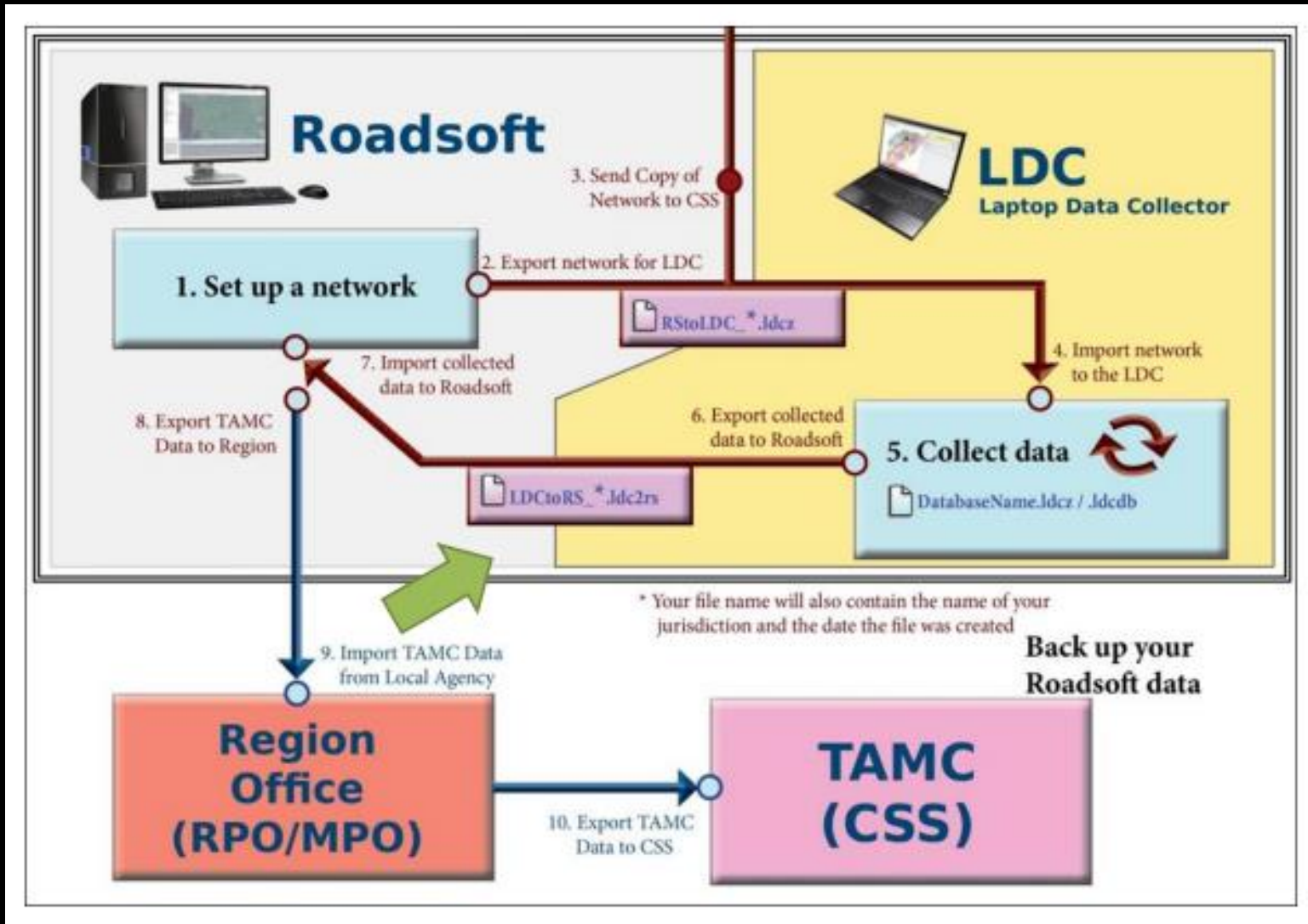
Cc: Roger Belknap  
Dave Jensen  
Gay Taylor

BRUNSWICK, 11 VAN WINDOMER BUILDING • P.O. BOX 30088 • LANSING, MICHIGAN 48909  
WWW.MICHIGAN.GOV • (517) 373-2000

MLP/MSD 01/15

- ✓ Integration of Investment Reporting Tool (IRT) and Act 51 Reporting (ADARS)
- ✓ MDOT performing compliance reviews
- ✓ Standardizing Asset Management within MDOT communication
  - ❖ Typically 3 categories of non-compliance
  - ❖ Customer Support
- ✓ Roadsoft Compatible





# Traffic Data Management

Web page

## New Software- TDMS



### Transportation Data Management System

[Home](#) [HPMS](#) [TMC](#) [TCLS](#) [TTDS](#) [PMS](#) [PMDS](#) [RSMS](#) [NMDS](#) [PMMS](#) [RTTV](#)  
[Backup](#) [Admin](#) [Login](#) [Logout](#) [+ Locate](#) [+ Locate All](#)  
 Welcome: carswelm [Edit Flowmap](#) [Auto-Locate OFF](#)

Quick Search    Advanced Search    Map Search    Tools

**TCDS Quick Search**

County:

Community:

Located On (Road):

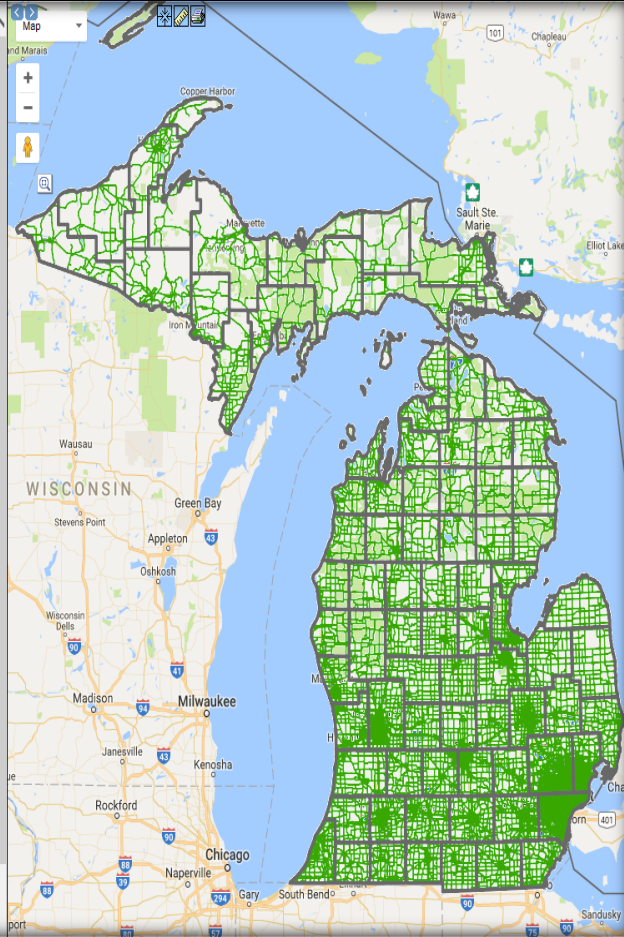
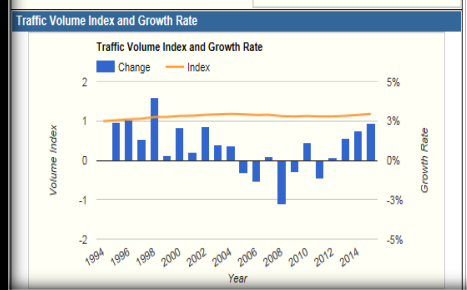
Location ID:

Count Year:

**Station Data**

Station Type	Continuous	Short	WM
Total	145	45,214	41
AADT	130	22,143	39
Volume	133	10,147	39
Class	56	2,864	40
Speed	109	20	40
Gap	0	0	0
WM	39	0	39

**Percent of Data by Type**



**MDOT Department of Transportation**

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**Highways Performance Monitoring System (HPMS)**

Resources

- HPMS Traffic Data
- HPMS Performance Monitoring System
- HPMS Data

Reference Documents

- HPMS Traffic Data
- HPMS Performance Monitoring System
- HPMS Data

Average Daily Traffic (AADT) Map  
 For more information or questions about AADT/CAADT maps, contact us.

**MDOT Traffic Monitoring Information System (TMIS)**

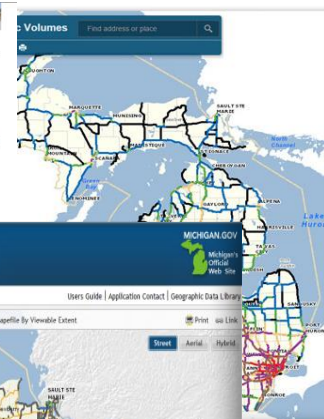
Michigan's real-time traffic information system on an annual basis.

A variety of data is collected, which includes:

- Short Counts
- Vehicle Classifications
- Annual Average Daily Traffic (AADT)

Once it is collected in the field, this data passes through various quality control measures before being made available through the application.

Build date: Oct 31st 2007



**MDOT Department of Transportation**

Michigan.gov Home | MDOT Home | Site Map | Contact MDOT | FAQ | State Web Sites

**MDOT NTFA**

Michigan's Michigan Department of Transportation, Non-Transit Federal Aid Mapping Application. Traffic segmentation details may be viewed or exported in multiple formats. The Non-Transit Federal Aid Program, NTFA, was established to:

**Navigational Tools**

- Select traffic segmentation to display and export information.
- Choose features you want to view on the map.
- A key to symbols used on a map, containing swatches of symbols with descriptions.
- View results from the place search when more than one result is found.
- Activate the Identify and select a road segment to display its Traffic ID, AADT and more.
- Map navigation information is available above the map using the Navigation Info dropdown menu.

Access to hourly and AADT data



# Michigan Geographic Framework (MGF)

Technology Upgrade Project

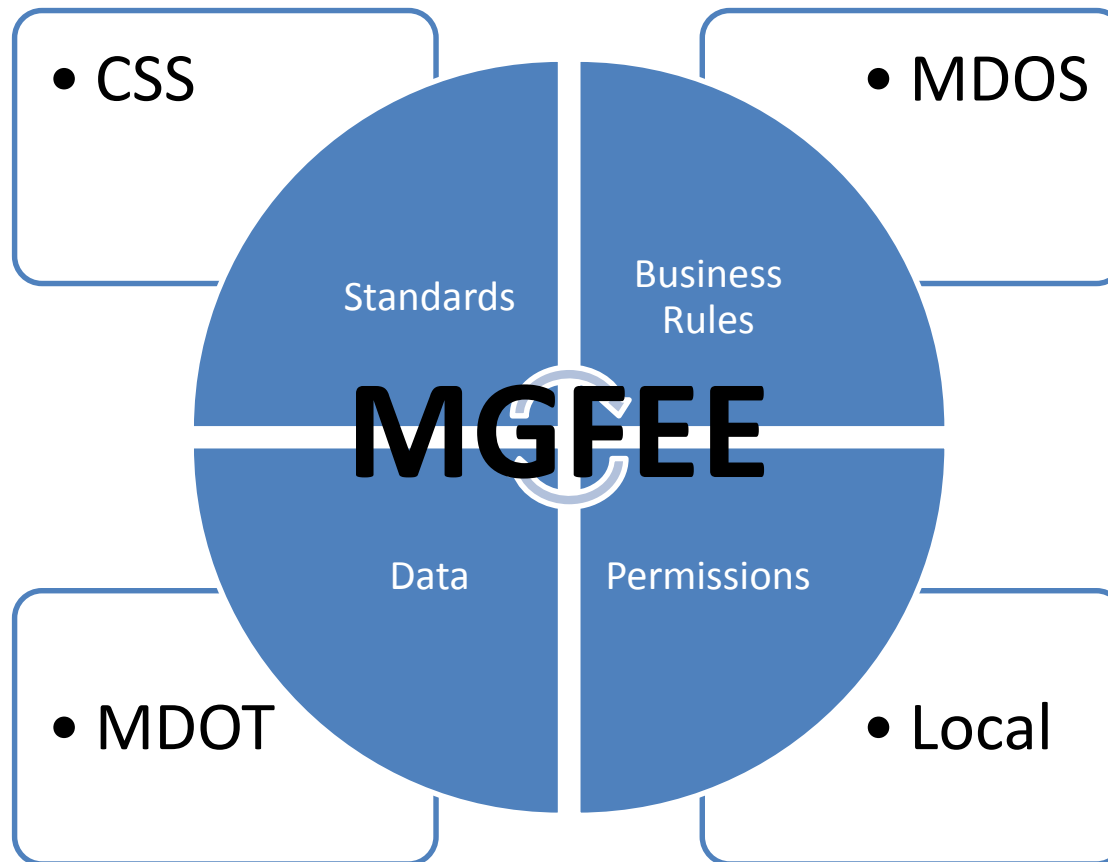


# MGF Background

- MGF began in the 1990s
  - Produced 16 annual versions to date
  - Framework modeled after national Framework concepts
  - Modeled using Census Tiger topological model
  - Initially used ArcInfo Coverage Data Format
  - Integrated boundary geography, roads, hydrology, rail
  - Integrated Linear Referencing System for all roads
  - Annual versions are made publicly available
  - Seen by federal agencies and other states as a model integrated state framework

# Components of Today's MGF

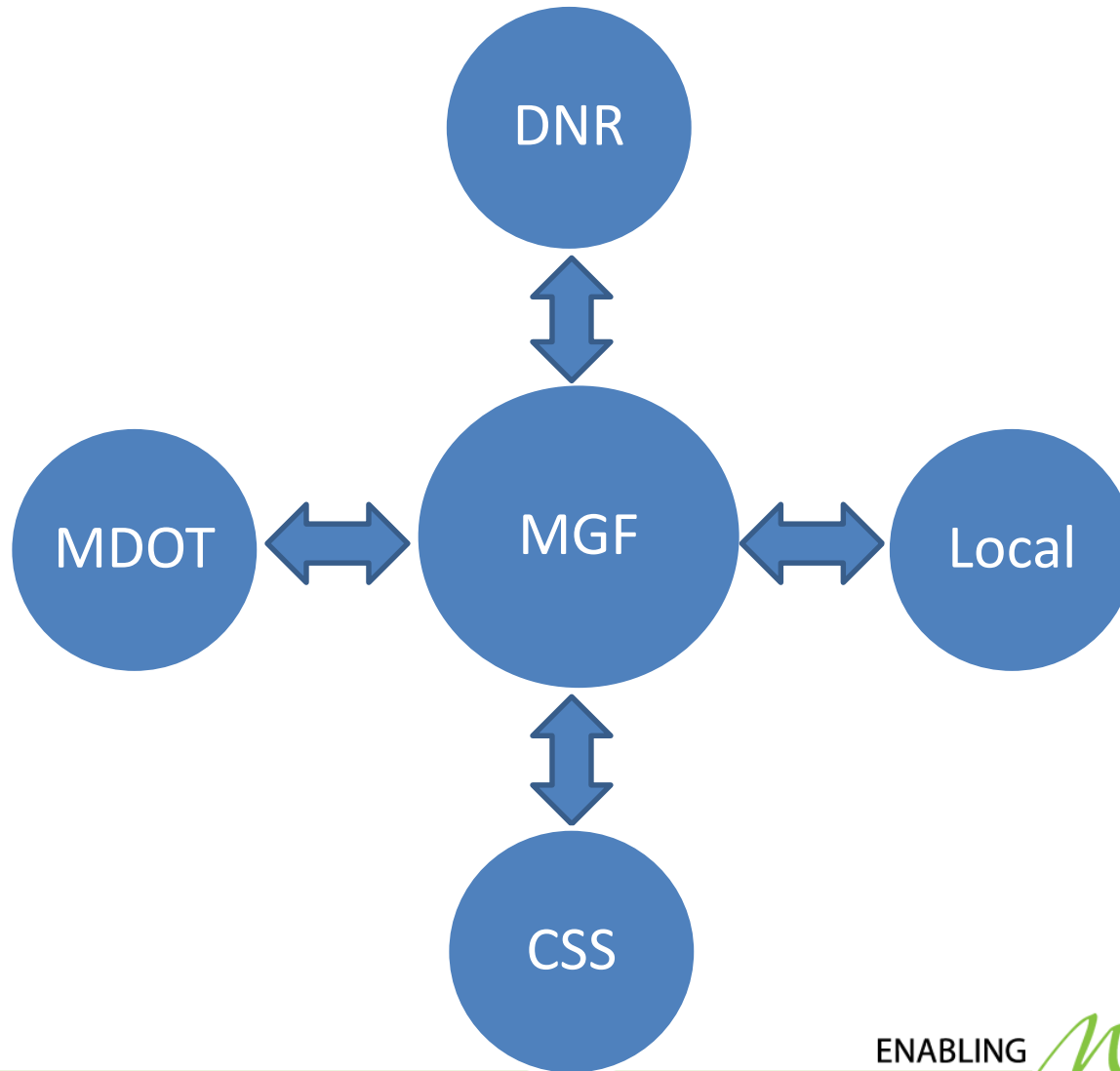
## Michigan Geographic Framework Editing Environment (MGFEE)



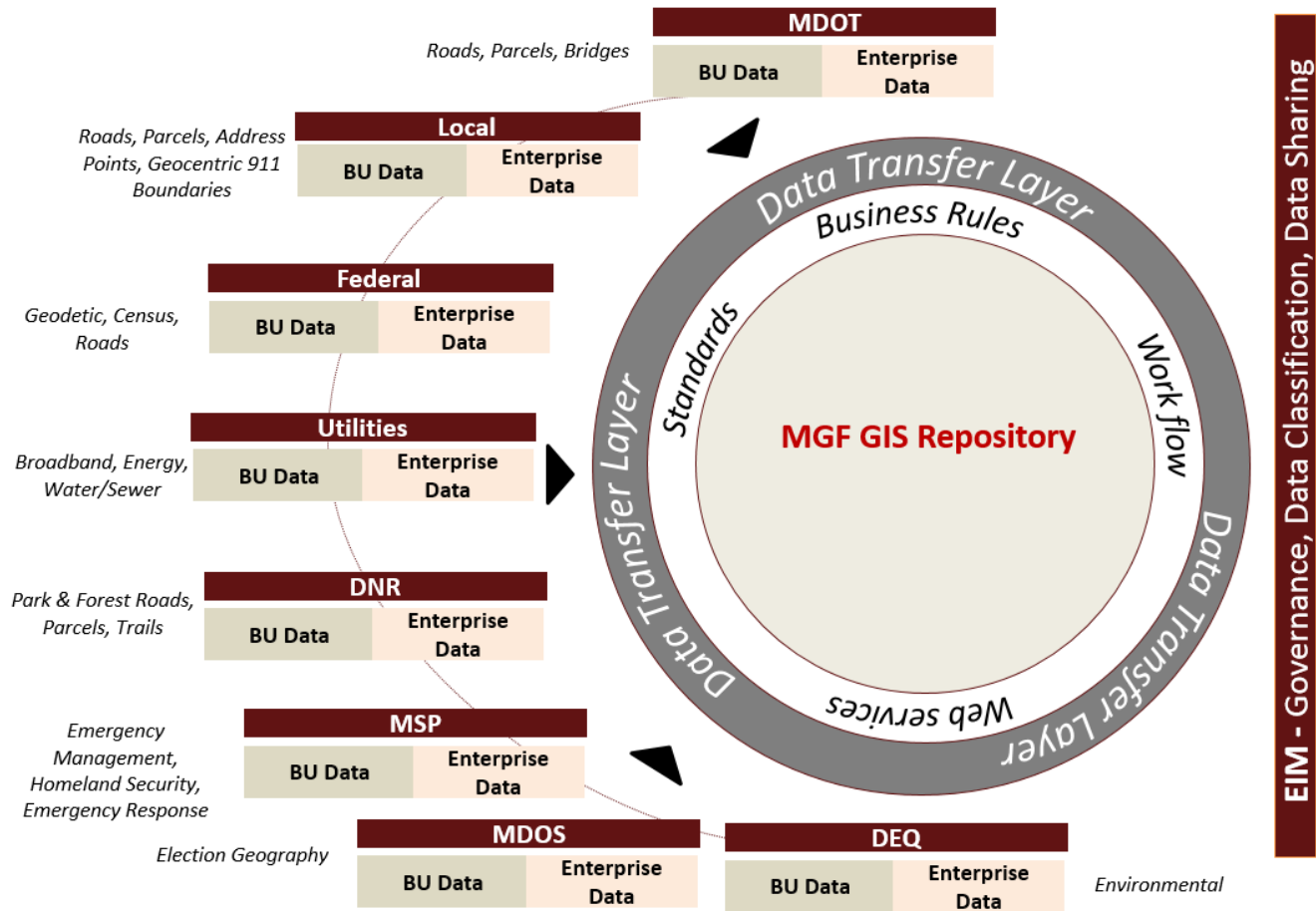
# Reasons for change

- MGFE system is end of life
  - Older programming technology
  - No longer being supported through new version releases
  - Delivery generation tools use old technology and data formats
- Newer technology to improve data management
- Develop new federated model using distributed architecture
- Data stewards use their own editing tools to manage their authoritative data then provide changes back to MGF master GIS repository – State Spatial Data Infrastructure model
  - MDOT implementing ESRI Roads and Highways
  - State agencies use their own editing software
- Leverage services to provide access to MGF data more frequently

# New Technology



# MGF Federated System





# What to expect

- Version 17 to be delivered in current MGF format
- Version 18 will be a transitional delivery, LRS will be produced from ESRI Roads and Highways
- Anticipate some changes to current deliverables
  - No .e00 export
  - Files as shapefiles or feature classes
  - Some fields that are no longer used may be removed
- Migration table is planned to be produced from ESRI Roads and Highways
- More outreach and communication as project begins
- Survey in progress

# Today and Tomorrow

MGF Today	MGF Next
One editing environment	Distributed editing
Annual versions	More frequent versions
Cannot load bulk features	Can integrate bulk uploads
Data products are produced as exported files	Service oriented architecture – connect to a service to get updates
Highly customized	More COTS than customized (expected)
MGF data layers publicly available	Geospatial repository to manage publication version of data based on data classification, open and internal



# Center for Shared Solutions

## Interaction Between Roadsoft & Investment Reporting Tool (IRT)

### Overview of IRT Application Re-write by CSS for 2017



# Roadsoft and the IRT (Investment Reporting Tool)

- Both the IRT and Roadsoft are free to local agencies.
- IRT can have multiple users and is a website where Roadsoft is software loaded on a single computer.
- Jurisdictions can use either tool for managing their investment data. The IRT is suited directly for investment reporting whereas Roadsoft offers more advanced features and additional tools.
- REMINDER: Roadsoft Users must still use portions of the IRT to meet their reporting requirements. (Specifically they must upload or export their investment data to the IRT so it can sync to ADARS and update their annual reporting Status to being complete.)



Michigan  
Transportation Asset  
Management Council

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[Dashboards](#)

[Reporting Hub](#)

**SPOTLIGHT**  
Spring Brochure

## INTERACTIVE MAPS

Create an up-to-date road and bridge condition map

## DASHBOARDS

Condition, operation, and investment in  
Michigan's public road system

## REPORTING HUB

Investment Reporting Tool (IRT), Act 51  
Distribution and Reporting System  
(ADARS), Non-Trunkline Federal Aid  
(NTFA)

## TRAINING

Sponsored training, support,  
and education programs

The Michigan Transportation Asset Management Council (TAMC) - A resource for independent, objective data on the condition of Michigan's

## MICHIGAN'S ROADS & BRIDGES

[Learn More](#)

122,284

11,072

# Overview of Investment Reporting Process

## PROJECTS

- “The what, the where and the when”
- Current year Road & Bridge work
- 3yr Plan - Planned Projects

## PROJECT ID / PROJECT NAME

- Unique for each project
- Common ground - links all systems.
- Can be street names or ID numbers

### Step 1

#### IRT (CSS)

- Enter PROJECTS

#### ROADSOFT (CTT)

- Enter PROJECTS
- PASER Ratings

### Step 2

#### IRT (CSS)

- TAMC  
Statewide  
Database

### Step 3

#### ADARS/ACT51 (MDOT)

- Verify PROJECTS  
pulled from IRT
- Enter Project Costs
- Requires Total Costs  
for Each Project (Not  
annual cost)

# Investment Reporting Tool (IRT)

## Data

- Road Data
- Bridge Data
- Send / Get Data
- HPMS Data

## Map

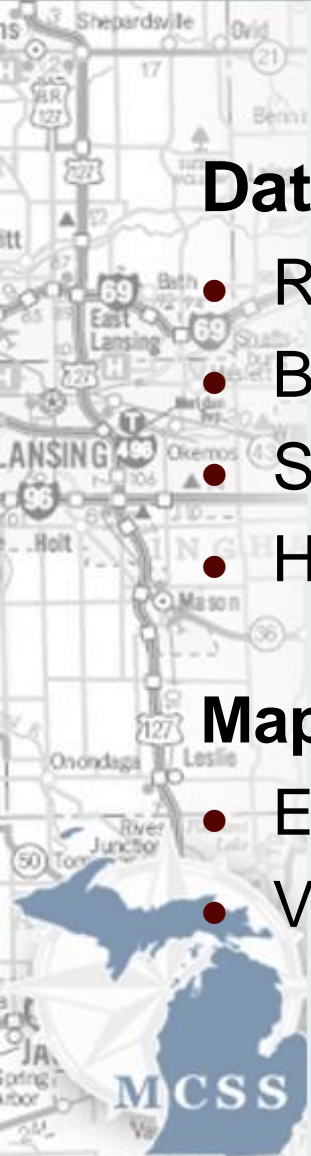
- Enter Road & Bridge data
- View Road (TAMC) data

## Reports

- Road and Bridge projects
- Includes ADARS Report that matches Asset Management page in ADARS

## Status





- Indicate TAMC compliance
- Review summary





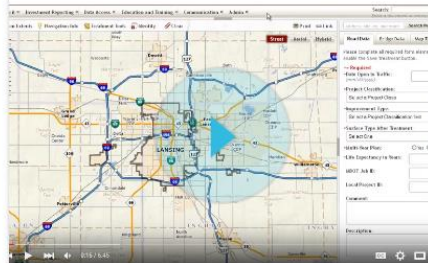
# IRT Training Page - Resources

## MATERIAL

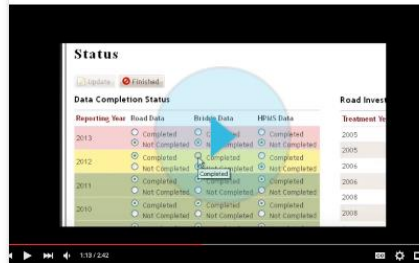
- 
[2016 TAMC-IRT Training Schedule](#) (234 KB)
- 
[2016 TAMC-IRT Training PowerPoint Slides](#) (4.6 MB)
- 
[Investment Reporting 101 & Key Points on ADARS Integration](#) (133 KB)
- 
[Investment Reporting Process Overview Diagram](#) (317 KB)

## VIDEOS

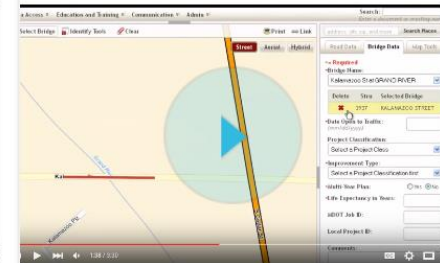
### Entering Road Projects Using a Map



### Updating Your Completion Status



### Entering Bridge Projects Using a Map





## Lessons Learned so far...

- Make sure to update to latest version of Roadsoft
- Interaction with IRT and ADARS depend on keeping consistent file formats, work types, MGF versions etc.
- Talk to your accounting areas so on the same page with Project ID / Project Naming convention
- “Project Builder” option in Roadsoft was designed to fit the investment reporting process more efficiently.
- If the file export from Roadsoft has issues try uploading directly into the IRT.





# IRT Data Page / Send (Upload File)

Michigan Transportation Reporting Portal - Internet Explorer

Transportation Asset Management Council  
MI Transportation Reporting Portal
Michigan.gov  
The Official State of Michigan Website

Name: Dave Jennett    Jurisdiction: Lansing    [Logout](#)

Investment Reporting ▾    Data Access ▾    Admin ▾    Search:  [Go](#)  
Enter a document or meeting name.

Internet Explorer 11 Users may have issues logging in and will need to use a different web browser such as Chrome or Firefox

## Data

New: [Click here to view IRT Training Videos](#)

Road
Bridge
Send
Get
HPMS

RoadSoft
 PASER
 Other File

Next
Cancel

Upload File

Select the location and RoadSoft text file on your machine to process to load your Treatment data into the Asset Management Council database. TXT file type expected.

Browse... & Upload


Michigan.gov | [Feedback](#)

[Privacy Policy](#) | [Link Policy](#) | [Accessibility Policy](#) | [Security Policy](#)  
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# IRT Data Page / Send / Roadsoft



Michigan Transportation Reporting Portal - Internet Explorer


Transportation Asset Management Council  
 MI Transportation Reporting Portal

Michigan.gov  
 The Official State of Michigan Website

Name: Dave Jennett    Jurisdiction: Lansing    [Logout](#)

Investment Reporting ▾    Data Access ▾    Admin ▾    Search:  [GO](#)  
Enter a document or meeting name.

Internet Explorer 11 Users may have issues logging in and will need to use a different web browser such as Chrome or Firefox

## Data

New: [Click here to view IRT Training Videos](#)

Road
Bridge
Send
Get
HPMS

RoadSoft
PASER
Other File

Check Road Segments 
[Back](#)    [Next](#)    [Cancel](#)

Not Valid Ownership(0)
Valid Ownership(6)

Valid

You have treatments that can be loaded into the TAMC database. [Click the Next button to load these treatments..](#)

Project Date	PR	BMP	EMP	Surface	Treatment	Class	Life Exp.	Num. Lanes	Comment
05/11/2015	342209	0	0.088	Composite	Single Course Chip Seal	MCPM	3	2	
06/11/2015	341608	1.426	1.858	Seal Coat	Reconstruct Non Freeway	MSI	7	2	
07/11/2015	342906	1.141	1.323	Asphalt	Multiple Course HMA Overlay on Composite Pavement	MSI	7	2	
04/11/2015	342906	1.141	1.323	Asphalt	Multiple Course HMA Overlay on Composite Pavement	MSI	7	2	
04/11/2015	342209	0	0.088	Asphalt	Multiple Course HMA Overlay on Composite Pavement	MSI	7	2	
09/11/2015	335505	1.522	2.592	Asphalt	Multiple Course HMA Overlay on Composite Pavement	MSI	7	2	

125%



# IRT Data Page / Send / Roadsoft

Michigan Transportation Reporting Portal - Internet Explorer

Transportation Asset Management Council  
MI Transportation Reporting Portal
Michigan.gov  
The Official State of Michigan Website

Name: Dave Jennett    Jurisdiction: Lansing    [Logout](#)

Investment Reporting ▾    Data Access ▾    Admin ▾    Search:  [GO](#)  
Enter a document or meeting name.

Internet Explorer 11 Users may have issues logging in and will need to use a different web browser such as Chrome or Firefox

## Data

Road   
 Bridge   
 Send   
 Get   
 HPMS

RoadSoft     PASER     Other File

Update Status [Next](#)    [Cancel](#)

✔ Entries loaded into the system. You must still update your Reporting Status after your file upload is complete!

What would you like to do next?

[Update Status](#)

or [Upload Another File](#)

Michigan.gov | [Feedback](#)

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125%



# IRT Data Page / Get (File Library)

Michigan Transportation Reporting Portal - Internet Explorer

Transportation Asset Management Council  
MI Transportation Reporting Portal
Michigan.gov  
The Official State of Michigan Website

Name: Dave Jennett Jurisdiction: Lansing Logout

Investment Reporting ▾ Data Access ▾ Admin ▾ Search:    
Enter a document or meeting name.

Internet Explorer 11 Users may have issues logging in and will need to use a different web browser such as Chrome or Firefox

## Data New: Click here to view IRT Training Videos

Road
Bridge
Send
Get
HPMS

1
10

File	Loaded By	Loaded On	Comment
Lansing 2015 Project Data.txt	jennettd	10/30/2016	
Lansing 2016 Project Data.txt	jennettd	10/07/2016	
Lansing 2015 Project Data.txt	jennettd	10/04/2016	
Lansing 2015 Project Data.txt	jennettd	09/08/2016	
Lansing 2015 Project Data.txt	jennettd	09/08/2016	
Lansing 2015 Project Data.txt	TaylorG1	08/05/2016	
Lansing 2015 Project Data.txt	jennettd	08/01/2016	
Lansing 2015 Project Data.txt	jennettd	07/12/2016	
Lansing 2015 Project Data.txt	jennettd	07/12/2016	
Lansing 2015 Project Data.txt	jennettd	06/09/2016	

125%



## Known issues...

- Files not uploaded properly or timed out – sometimes due to outdated Roadsoft version
- Problems with matching treatment types
- No Custom treatments allowed
- Misleading confirmation emails – PASER file was uploaded but no feedback to what the file contained – problem with local PASER data last year.

.....The good news.....



# 2017 IRT Changes Overview

- Grant awarded by MDOT to rewrite existing IRT which has existed for over 10 years
- Improvements planned to keep ease of use but reduce known problem areas and offer newer features
- Rewrite to include change of Project Classifications and Treatment Types
  - 4 Classifications – SI, Rehabilitation, Heavy and Light CPM
  - Customized treatments accepted

# Direction of the New IRT:



Waterbody, County, City, Zip

County Zip Code More

2 Closures and Advisories 1226 Public Beaches 517 Private Beaches

**Good Harbor Creek**  
Good Harbor Creek Outlet, Leelanau Contamination Advisory

**Good Harbor Creek**  
Good Harbor Creek Outlet, Leelanau Contamination Advisory

Michigan BeachGuard System, a public resource provided by Michigan DEQ for information on Michigan beach water quality sampling results and beach advisories and closures.

MADE WITH mVISION

0/0 Comments OFF






## IRT Changes Overview (cont.)

- Ability to upload Asset Management Plans
- Provide feedback to TAMC on agencies investment planning processes
- Better means to manage past data sets
- Work flow to identify action items
- Mass deletes for previous planned data
- Validation and feedback on PASER file upload

# Preview of New PASER Upload



https://miloginworkerdev.michigan.gov/#/ - Paser Upload - Internet Explorer

 Michigan Transportation Asset Management Council

Interactive Maps Dashboards Reporting Hub

### PASER UPLOAD

Jurisdiction:  Select a Paser File:

Comments:



---

### UPLOAD SUMMARY

Ionia2016.txt 69% Complete

---

### PREVIOUS FILES

Filter Files

File Name	Jurisdiction	Size	Uploaded On	Status	View Summary	Download
Ionia2016.txt	Ionia County	8.2 MB	10/31/2016 10:07:11 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>
Ionia2016.txt	Ionia County	8.2 MB	10/31/2016 10:06:28 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>

https://miloginworkerdev.michigan.gov/#/ - Paser Upload - Internet Explorer

### UPLOAD SUMMARY

Ionia2016.txt 100% Complete

**Total records submitted:** 73771      **Records to be processed:** 39  
**New Records that don't already exist:** 39      **Federal lane miles added:** 45.98  
**Non Federal lane miles added:** 22.64      **Number of rejected records:** 73732

---

### PREVIOUS FILES

Filter Files

File Name	Jurisdiction	Size	Uploaded On	Status	View Summary	Download
Ionia2016.txt	Ionia County	8.2 MB	10/31/2016 10:07:47 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>
Ionia2016.txt	Ionia County	8.2 MB	10/31/2016 10:07:11 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>
Ionia2016.txt	Ionia County	8.2 MB	10/31/2016 10:06:28 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>
Ionia2016.txt	Ionia County	8.2 MB	10/31/2016 10:03:36 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>
Ionia2016.txt	Ionia County	8.2 MB	10/31/2016 9:50:25 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>
Ionia2016.txt	City of Lansing	8.2 MB	10/31/2016 9:49:05 AM	Complete	<input type="button" value="View"/>	<input type="button" value="Download"/>



# Questions Feedback Requests



## Contacts & Resources

- Rog Belknap [BelknapR@michigan.gov](mailto:BelknapR@michigan.gov)
- Melissa Carswell [CarswellM@michigan.gov](mailto:CarswellM@michigan.gov)
- Mark Holmes [HolmesM3@michigan.gov](mailto:HolmesM3@michigan.gov)
- Dave Jennett [JennettD@Michigan.gov](mailto:JennettD@Michigan.gov)
  
- TAMC IRT Helpdesk/ CSS (Center for Shared Solutions)
  - [CSS-TAMC@mi.gov](mailto:CSS-TAMC@mi.gov) (517) 373-7910
  
- Resources also can be found under Training and Support on the TAMC website: [www.michigan.gov/tamc](http://www.michigan.gov/tamc)

## Thank You

