

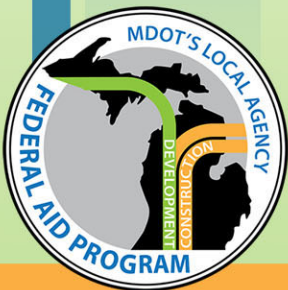
Local Bridge Program – 2023 Bridge Week



Local Bridge Program

Presentation Topics

- Program Funding
- Additional IIJA Funding
- Local Bridge Condition
- FY 25 Call for Projects
- Bridge Bundle Pilot
- Bridge Bundle Phase II
- FY 26 Call for Projects



Local Bridge Program

- Funding increases to the Local Bridge Program (LBP)
- Infrastructure Investment and Jobs Act (IIJA)
 - Additional \$36 million per year to Local Bridge Program (FY 22-26)
 - Added to annual budget \$50 million

\$86 million average LBP budget for FY 22-26 – **72% increase!**





Local Bridge Program

- Bridge Projects FY 22, FY 23, FY 24, FY 25 (fall 2022) already selected
- **FY 2025 Call** = \$50m + \$36m+\$36m = \$122 million **minus \$33 million deficit = \$89 million**
- **FY 2026 Call** = \$50m + \$36m+\$36m = **\$122 million** minus 2023 project deficits (if any)
- **FY 2027 Call** = \$50m + \$36m = **\$86 million** minus 2024 project deficits (if any)
- 5 years of IJA funds in 3 Call For Projects cycles



Local Bridge Program

- New Local Bridge Funding
 - \$24 M – Bridge Bundle Pilot – **Complete**
 - \$196 M – Bridge Bundle – FY 23-26
 - \$180 M – IIJA - FY 22-26
- Local Bridge Program Funding
 - \$50 M per year (typical)
- Total **Add Funding** for Local Bridges
 - **\$400 M – FY 22-26**
- What are the current Local Current Bridge Conditions?
- Costs to eliminate serious/critical/closed bridges?

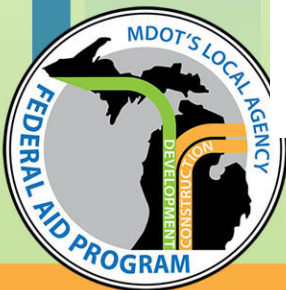
Local Bridge Condition

Structure Condition Dashboard

Jurisdiction: LA Statewide

Structure Inventory Summary	Count	Structure Condition Summary	Count	SD/FO Summary	Count
Total No. of Structures	7,420	Good/Fair (5 or Greater)	6,225	*Structurally Deficient	970
Highway (NBI) Structures greater than 20'	6,719	Highway included in NBI	5,746	*Functionally Obsolete	636
Highway Structures less than 20'	376	Non NBI Structures (<20, RR, Ped, etc.)	479	*Non-Deficient Structures	5,088
Rail Road Structures (X)	252	Poor (4)	694	*No Current SD/FO Rating	3,731
Pedestrian Structures (P)	65	Highway included in NBI	581	NBI Condition - Goals Summary	Pct.
Other Non-Highway Structures (V, Plaza)	8	Non NBI Structures (<20, RR, Ped, etc.)	113	*Good/Fair (5 or Greater)	85.6%
Additional Bridge Inventory Information		Serious/Critical (3 or less)	487	Freeway	0.0%
Posted Structures	1,063	Highway included in NBI	389	Non-Freeway	85.6%
Closed Structures	82	Non NBI Structures (<20, RR, Ped, etc.)	98	*Poor/Serious/Critical (4 or Less)	14.4%
Fracture Critical Structures	59	Unrated Structures	14	Freeway	0.0%
Scour Critical Structures	1,116	Highway included in NBI	3	Non-Freeway	14.4%
Scheduled/Under Construction (S, G)	6	Non NBI Structures (<20, RR, Ped, etc.)	11	*Good NHS Deck Area	27.2%
				*Fair NHS Deck Area	55.4%
				*Poor NHS Deck Area	17.3%

*Applies ONLY to Highway Structures > 20'



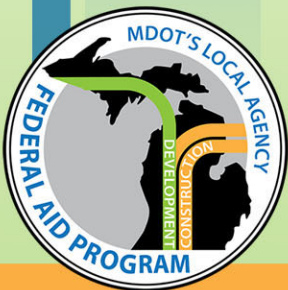
Local Bridge Condition

Michigan Bridges = 11,000

- MDOT Bridges = ~4600
- Local Bridges = ~6700

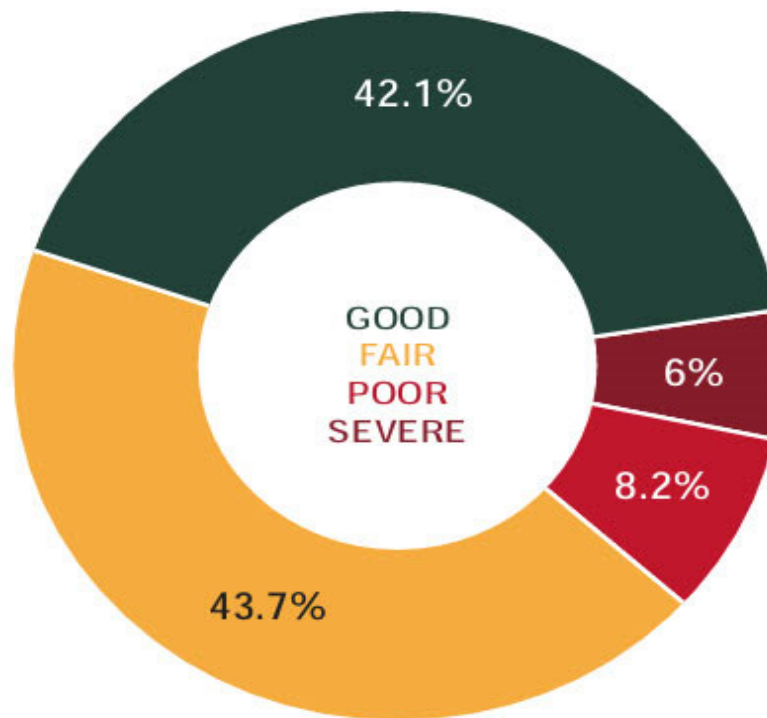
Condition of Local Bridges

- Good/Fair = 5700
- Poor = 580
- Serious/Critical = 400
- Closed = 85



Local Bridge Condition

2021 Local Agency Bridge Condition



Local Road Agency Bridges

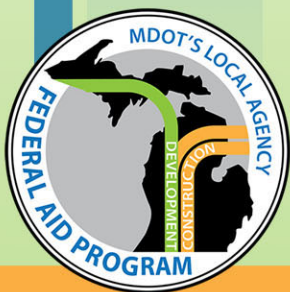
Figure 13 shows that local agencies are managing both a larger percentage of good bridges, while also managing a larger percentage of poor and severe bridges. While many local agencies are working to embrace preservation strategies but are prevented by the overwhelming need of the bridges in the worst conditions.

A bridge in poor condition is a candidate for major rehabilitation or replacement. When the bridge no longer has the strength to bear the loads for which it was designed, the bridge must be posted for lower loads in order to maintain safety. A bridge in severe condition often needs expensive emergency repairs, temporary supports, or shoulder closures. Ultimately, the inability to obtain funding will result in a safety risk to the public and the bridge will have to be closed. At the end of 2021, 60 local agency bridges remained closed due to their condition.



Figure 13

Source: 2021 National Bridge Inventory



MDOT Bridge Condition

MDOT Bridges

Unlike roads, all bridges are considered federal-aid eligible. Figure 12 shows that MDOT has nearly 7% of its bridges in poor or severe condition and 69% of bridges are in fair condition. This large population of bridges in fair condition represents the previous investments in preservation. Until recently, MDOT has been able to maintain the number of bridges in fair condition before they reach the poor category, while increasing the number of bridges in good and fair condition. An aging infrastructure and rising costs along with not enough existing revenue or new revenue to maintain our aging bridges, have reversed some of that progress.

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

2021 MDOT Bridge Condition

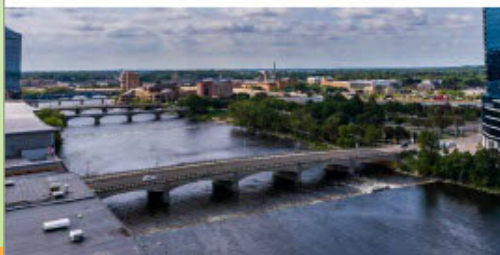
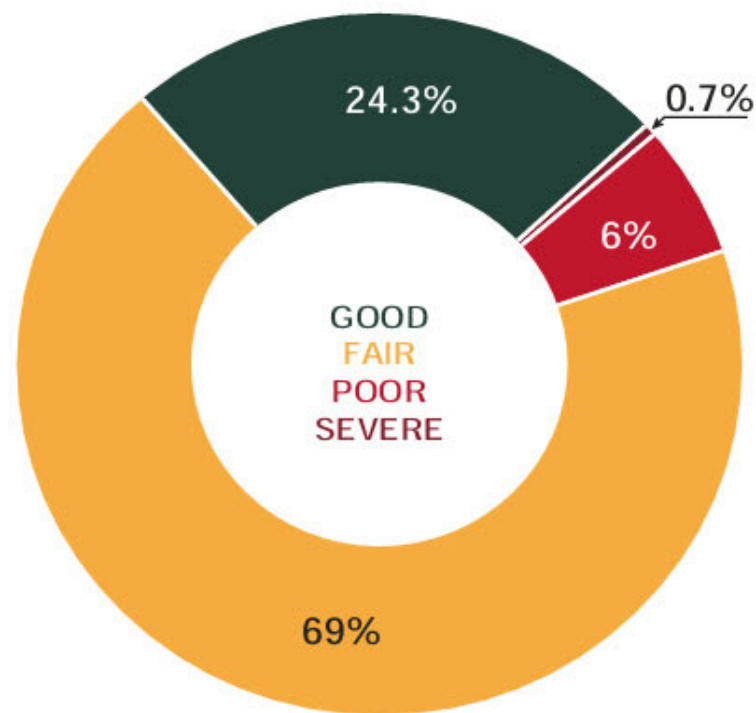


Figure 12

Source: 2021 Michigan Bridge Inventory

Local Bridge Condition

Bridge Cycle of Life

Every year, analysts examine the bridge data to determine the extent to which bridges are improved or deteriorate over a 4-year span. This effort tracks how bridges change from between the good, fair, and poor ratings and is referenced as the Bridge Cycle of Life.

Figure 14 shows over 5.5% more bridges have deteriorated than have been improved between 2018-2021.

In simplified terms, bridges are deteriorating faster than the agencies can repair or replace them.



Bridge Cycle of Life

All Roadway Bridges 2018-2021

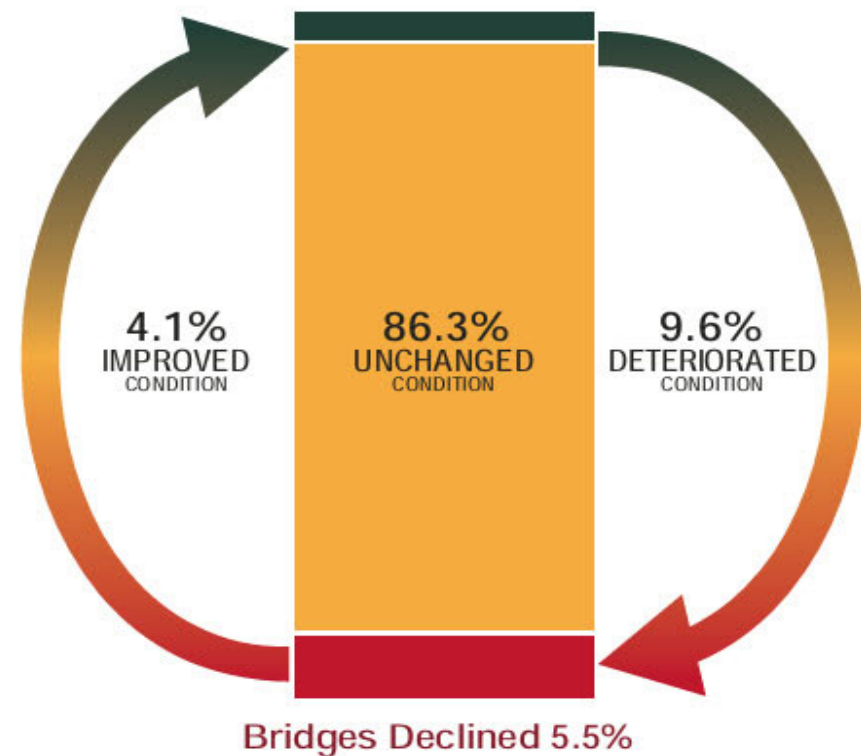


Figure 14

Source: 2018-2021 Michigan Bridge Inventory

Local Bridge Condition

Local Bridge Program: \$50 million budget + IJA \$39 million = \$89 million

- 2022 – 424 Applications - \$400 million – 8 times typical budget

- Selected 2022 Call:

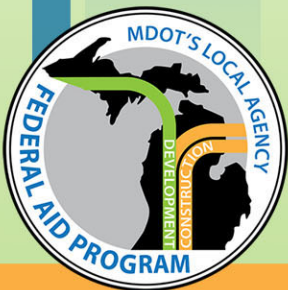
33 Replacements

107 Rehabilitation/PM

140 Total Bridges



- 25% more bridges than last year
- ~\$1.3 Billion estimated cost to eliminate the 400 plus Serious/Critical/Closed Bridges

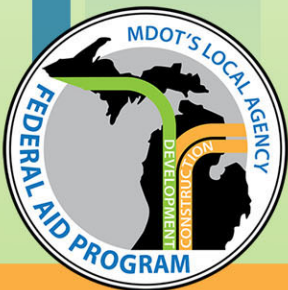


Bridge Bundling

Bridge Bundling Pilot

- \$24 million in federal grant funds due to Michigan's Poor bridges
- 19 local agency superstructure replacements
- All bridges open to traffic Nov. 2022, pilot went well
- A sample of Bridges in the pilot
 - Linn Road over Deer Creek – Ingham County
 - Bentley Street over Farmers Creek – City of Lapeer
 - Sand Creek Hwy over River Raisin - Lenawee County

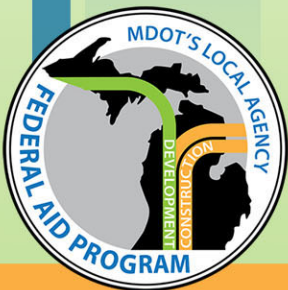
[Website: MDOT Bridge Bundling \(arcgis.com\)](https://arcgis.com)



Bridge Bundling



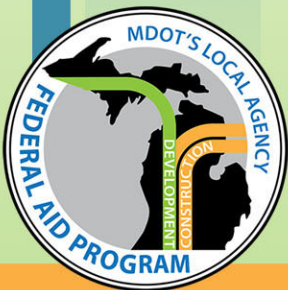
Linn Road – Ingham
County



Bridge Bundling



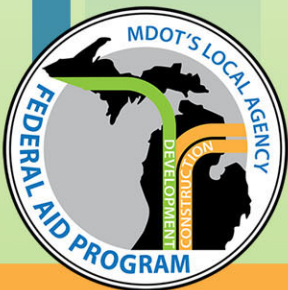
Bentley St. – City of
Lapeer



Bridge Bundling



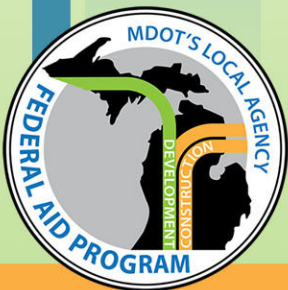
Sand Creek Hwy –
Lenawee County



Bridge Bundling

Bridge Bundling – CRRSAA Phase (2)

- \$196 million for the State Legislature
- 59 local agency bridges selected
- 10 Bridge Bundles
 - 3 Bundles are (13 total) permanent bridge removals - DBB
 - 1 Bundle is 2 large bridges in Wayne County - DBB
 - 2 Bridges will be stand alone bridge contracts -DBB
 - Remaining bundles are bridge replacements – Will be Design Build contract process
- Bundles Let from Nov 2022 – Aug 2024
- Consultant Project Managers will handle all oversight of Phase 2 BB



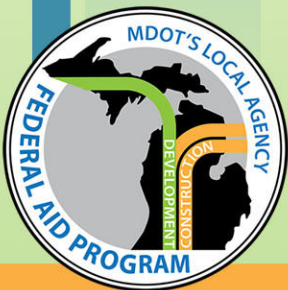
2023 Call For Applications

Sent out in February to CRA and MML – Call for FY 2026 Construction

Application Deadline – April 3rd, 2023

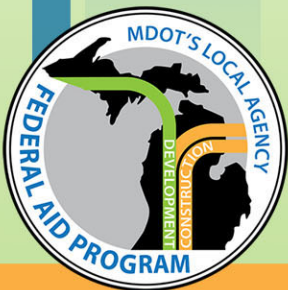
Local Bridge Program Website

- Call Letter/Instructions
- Call for Applications - Submission sheet
- Est. Worksheet – Revised (Jan 2023)
- 2022 Selected Projects for FY 2025



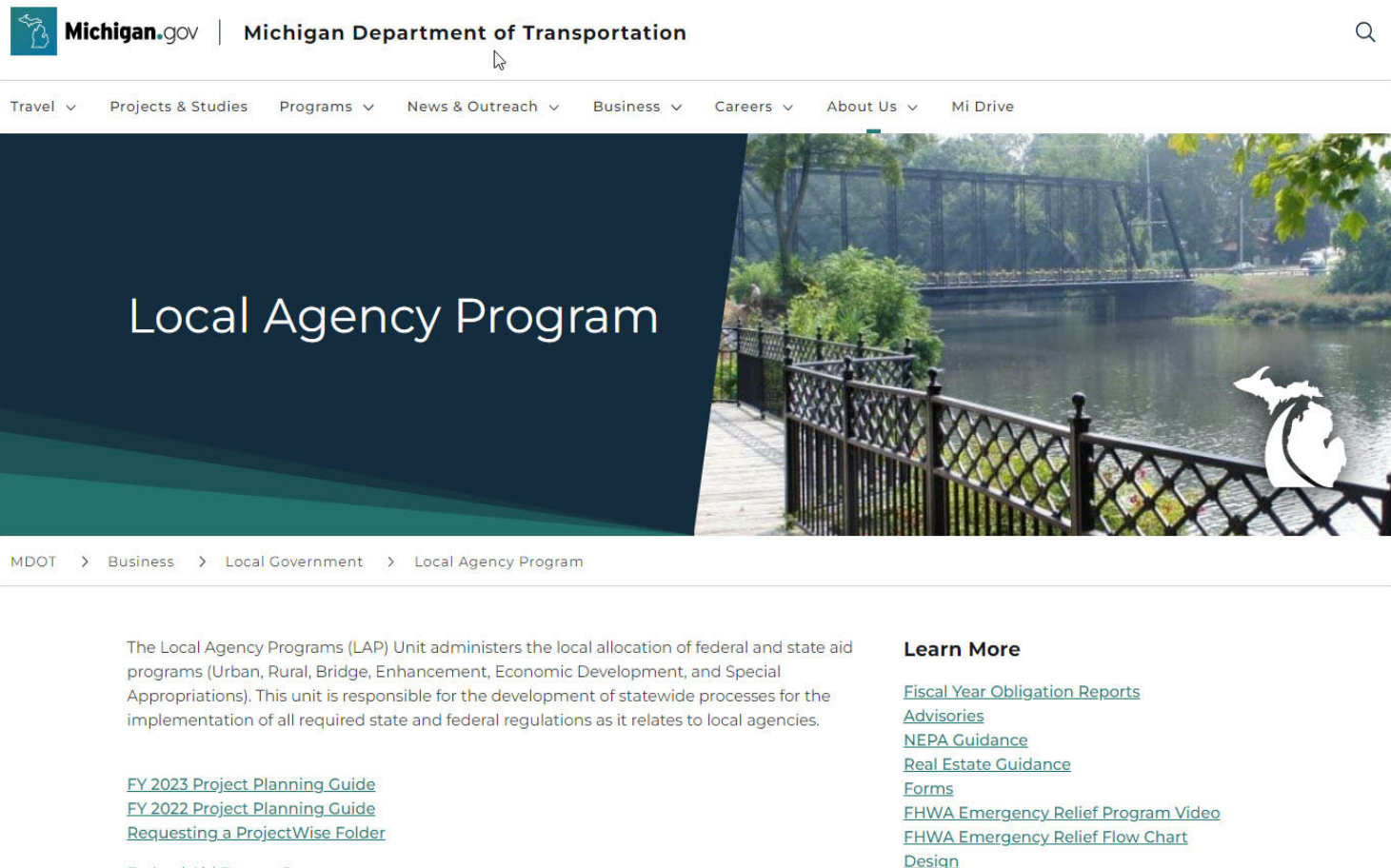
2023 Call For Applications

1. Request for Preliminary (calculated) rating points for local agencies bridge inventory
 - Send requests: MDOT-Bridge-Data-Request@michigan.gov
 - Verify all Bridge data is correct
 - Calculated/Voted Points Guidance on website
 - **Under – “Additional Information” – “Local Bridge Program”**
2. Additional Information Tab
 - Overview of Local Bridge Program
 - Bridge Selection Process
 - Design Submittal Requirements
 - 3-Year Local Bridge Program Selected Bridges

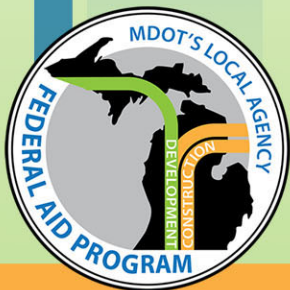


2023 Call For Applications

Google: MDOT Local Agency Bridge Program



The screenshot shows the Michigan Department of Transportation website. The header includes the Michigan.gov logo and the text "Michigan Department of Transportation". A navigation menu contains links for Travel, Projects & Studies, Programs, News & Outreach, Business, Careers, About Us, and Mi Drive. The main content area features a large image of a bridge over a river with the text "Local Agency Program" overlaid. Below the image is a breadcrumb trail: MDOT > Business > Local Government > Local Agency Program. The text below the breadcrumb reads: "The Local Agency Programs (LAP) Unit administers the local allocation of federal and state aid programs (Urban, Rural, Bridge, Enhancement, Economic Development, and Special Appropriations). This unit is responsible for the development of statewide processes for the implementation of all required state and federal regulations as it relates to local agencies." To the right of this text is a "Learn More" section with links to: Fiscal Year Obligation Reports, Advisories, NEPA Guidance, Real Estate Guidance, Forms, FHWA Emergency Relief Program Video, FHWA Emergency Relief Flow Chart, and Design. In the bottom left corner of the screenshot, there is a circular logo for "MDOT'S LOCAL AGENCY FEDERAL AID PROGRAM" with a map of Michigan and the text "ECONOMIC DEVELOPMENT" and "CONNECTION".



2023 Call For Applications

[Urban Road Program](#) [Rural Road Program](#) [Bridge Program](#) [TAP](#) [Safety Program](#)

[Keith Cooper](#), P.E., Supervisor, 517-331-1395

[Monica Uribe](#), P.E., Project Development Engineer, 517-335-4522

[Bridge Area Staff Engineer Contact Information](#)

[Regional Bridge Councils Contact Information](#)

[Local Bridge Advisory Board Contact Information](#)

General Program Instructions

[Instructions for Preparing to Bid Federal Aid Projects Through MDOT](#)

[Instructions for Construction of Federally Funded Local Agency projects by Non-Competitive Bid Contract \(Force Account\)](#)

Local Bridge Program Public Meeting Announcements

[Public Notice of Local Bridge Advisory Board Meeting October 27, 2022 - Location Change](#)

[Public Notice of Bay Region Bridge Council Meeting for October 3, 2022](#)

[Public Notice of Grand Region Bridge Council Meeting for October 10, 2022](#)

[Public Notice of Metro Region Bridge Council Meeting for September 28, 2022](#)

[Public Notice of North Region Bridge Council Meeting for September 22, 2022](#)

[Public Notice of Southwest Region Bridge Council Meeting for October 5, 2022](#)

[Public Notice of Superior Region Bridge Council Meeting for September 23, 2022](#)

[Public Notice of University Region Bridge Council Meeting for October 12, 2022](#)

Call for Projects

[FY 2025 Local Bridge Applications Received](#)

[FY 2022 LAP Bridge Scoping Estimate Key](#)

[2022 Selected Projects for FY 2025](#)

[FY 2022 LAP Bridge Scoping Cost Estimate Worksheet](#)

[FY 2025 Local Bridge Program Call For Applications - Due April 2022](#)

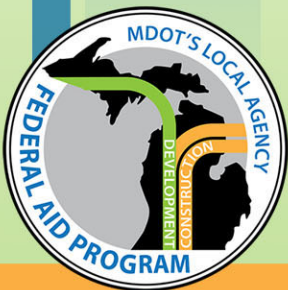
[FY 2025 Local Bridge Program - Call for Applications Submission Sheet](#)



LAP Construction

MDOT's Local Agency Program assists local agencies with preserving state and federal aid in a fair and consistent manner and serves as an information resource.

[Local Agency Program Construction](#) >



2023 Call For Applications

Call for Projects

[FY 2025 Local Bridge Applications Received](#)

[FY 2022 LAP Bridge Scoping Estimate Key](#)

[2022 Selected Projects for FY 2025](#)

[FY 2022 LAP Bridge Scoping Cost Estimate Worksheet](#)

[FY 2025 Local Bridge Program Call For Applications - Due April 2022](#)

[FY 2026 Local Bridge Program - Call for Applications Submission Sheet](#)

Secondary Route Bridge Design Plan Guides

[Final Report Part 1](#)

[Final Report Part 2](#)

[Final Report Part 3](#)

[Secondary Route Bridge Design Plan Guides](#)

[MDOT Microstation Workspace Instructions](#)

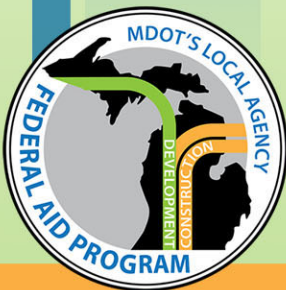
Asset Management

[Asset Management Guide for Local Agency Bridges in Michigan](#)

[Asset Management Bridge Inventory Data and Maintenance Plan Spreadsheet](#)

Additional Information

[Local Bridge Program](#)



2023 Call For Applications

Overview

- [Local Bridge Program Overview](#)
- [Local Bridge Program Guidelines](#)
- [Flow Chart of Local Bridge Process Steps](#)
- [Local Bridge Advisory Board Procedures](#)
- [Regional Bridge Council Procedures](#)

Bridge Selection Process

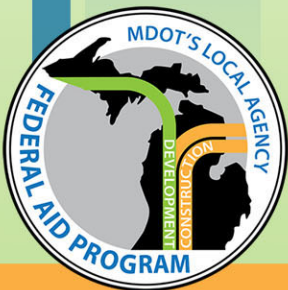
- [Calculated Rating Point Guidance](#)
- [Voted Rating Point Guidance](#)
- [Sample Bridge Rating Sheet](#)

Design Submittal Requirements

- [Type Size and Location Procedures for Replacement Projects Only](#)
- [Items Required for Local Agency Bridge Plan Review \(GI\)](#)

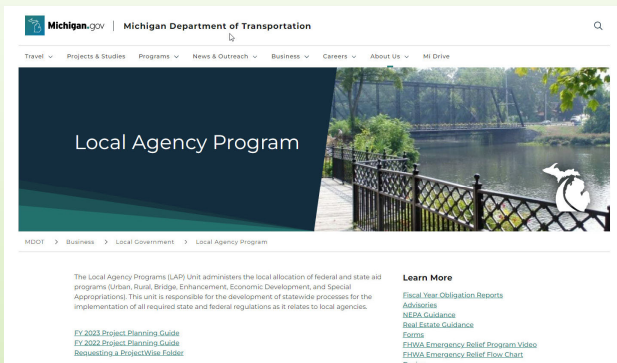
3-Year Local Bridge Program Selected Bridges

- [2022 Selected Projects for FY 2025](#)
- [Large Bridge Projects FY 2023-2025](#)
- [Bay FY 2025](#)
- [Grand FY 2025](#)
- [Metro FY 2025](#)
- [North FY 2025](#)
- [Southwest 2025](#)
- [Superior FY 2025](#)
- [University FY 2025](#)



2023 Call For Applications

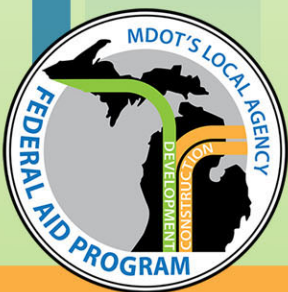
List of all submitted applications will be posted on Local Bridge Program website



Superior Region Application Selection - FY 2022																			
Str #	Structural Bridge Adequacy	Bridge Features	App Calc	Detour Voted	Detour Adequacy	Function Adequacy	Economic Importance	Disc Value	Subtotal Voted	Pre Points	Total Rating Points	Str #	Owner	Facility	Featured Intersection	Type of Work	On/Off	Cost Estimate	Local Match
68			0.00						0	0	0	68	Alger County	Woodland Road	AuTrain River	Replace	Off	\$1,137,000	
73			1.25					1.25	1.25	1.25	73	Alger County	Kivamaki Road	Whitefish River	Replace	Off	\$507,000		
78			0.25					0.25	0.25	0.25	78	Alger County	Sand Lake Road	Sand River	Replace	Off	\$510,000		
509								0	0	0	509	Baraga County	Arnhelm Road	Sturgeon River	PM	On	\$390,000		
511			1.50					1.5	1.5	1.5	511	Baraga County	Pelkie Road	Silver River	Replace	On	\$1,600,000		
1632			2.00					2	2	2	1632	Chippewa County	6 Mile Rd	Watska River	Replace	On	\$1,138,000	50%	
1636			1.50					1.5	1.5	1.5	1636	Chippewa County	Mackinac Trail	Pine River	Replace	On	\$3,293,000	250%	
1637			1.25					1.25	1.25	1.25	1637	Chippewa County	Mackinac Trail	Chub Creek	Replace	On	\$1,117,000	22%	
2118			0.75					0.75	0.75	0.75	2118	Delta County	County Road 410	Ten Mile Creek	Replace	Off	\$847,000		
2201			1.75					1.75	1.75	1.75	2201	Dickinson CBC	County Road 569	Sturgeon River	Replace	On	\$1,400,000		
2202			1.75					1.75	1.75	1.75	2202	Dickinson CBC	County Road 569	East Branch of the St	Replace	On	\$650,000		
2987								0	0	0	2987	Gogebic County	Chaney Lake Road	Little Black River	PM	On	\$366,000		
3005			0.50					0.5	0.5	0.5	3005	Gogebic County	Mosinee Grade Rd	Black River	Replace	Off	\$976,000		
3011			0.75					0.75	0.75	0.75	3011	Gogebic County	Vanderhagen Road	Welch Creek	Replace	Off	\$818,000		
3424			1.25					1.25	1.25	1.25	3424	Houghton County	Woodbush Road	Trappack River	Replace	Off	\$693,005		
6530								0	0	0	6530	Marquette County	CR 601	Michigamme River	PM-Multiple	Off	\$136,250		
6532			1.50					1.5	1.5	1.5	6532	Marquette County	CR 456	Choolay River	Replace	On	\$870,000		
6540								0	0	0	6540	Marquette County	CR 581	MB of Escanaba River	PM-Multiple	Off	\$32,700		
6544			1.50					1.5	1.5	1.5	6544	Marquette County	CR 478	Greenwood Reservoir	Replace	On	\$1,000,000		
6547								0	0	0	6547	Marquette County	CR 573	Carp River	PM-Multiple	Off	\$39,950		
6567								0	0	0	6567	Marquette County	CR 881	Choolay River	PM-Multiple	Off	\$32,700		
6568								0	0	0	6568	Marquette County	CR 8AE	Choolay River	PM-Multiple	Off	\$16,350		

By April 24th, 2023

Check list to verify all applications were received

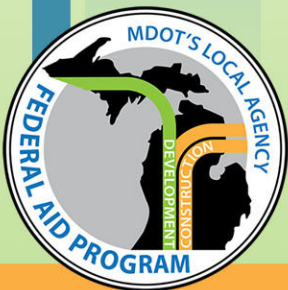


2022 Call For Applications

Application limit – Limit 4 Applications

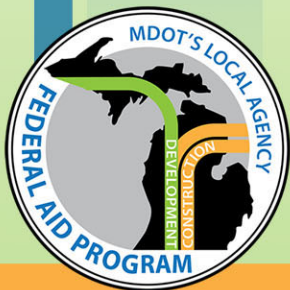
Multiple PM's still count as 1 Application

- Bundle for cost effectiveness
- Good Estimate Range for PM App - \$200k-500k
 - **PM projects are often underestimated – Be conservative**
 - Mob and Traffic are often major \$ in PM projects
 - Cost factor for small quantities and contingencies
 - PM projects present higher risks to contractors – Est. accordingly
 - High bids for bridge projects in FY 2022



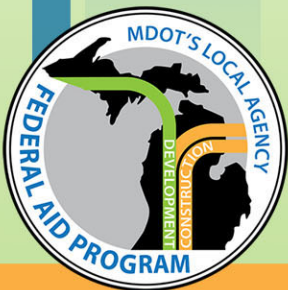
Tips to Increase Chances for Selection

- Look for additional sources of funding
 - STP, Safety, Economic Development, etc.
- Bundling PM applications
 - Similar type of work
 - Location
 - Economy of scale
 - Bundled PM's count as 1 application
- Increase Local Agencies funding share
 - \$10 million add. local match in 2022
- Innovative Design, Prefabricated Bridge Elements
 - Savings in construction
 - Does this site need a conventional bridge?



Application Selection Notice

- Local Bridge Program Funding
 - ½ Local Bridge Funds are federal off-system
 - ½ Local Bridge Funds are State funds
 - Currently an imbalance of on to off-system projects.
 - Applying for new waiver to exchange some off for on-system funding
 - FY 2026 Call for Projects: ~½ of the Selected Applications will be Off-System



Other Items

1. Bridge Design Quality Assurance (QA)

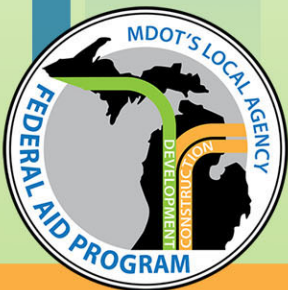
- 4 projects to be assigned Design QA review – Assigned at GI phase
- 2 are completed – Reviews went well – 1 just assigned
- Geotech and Hydraulics - Assumptions/Calcs had most comments

2. Lead Times for materials

- Structural Steel – 4-to-6-month lead time for delivery
- Check with fabricators so adjustments can be made to Progress Clause prior to project turn in

3. High Bids for Bridge Projects

- High bids for FY 2022
- Oct-Feb: Bids much closer to EE
- Overages will be taken from FY 26 allocation (Fall 2023)



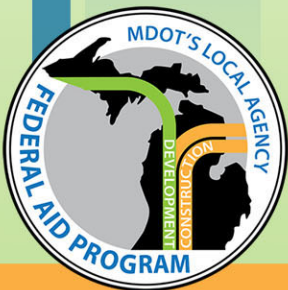
Other Items

4. New Section 106 Programmatic Agreement

- MDOT will review projects rather than SHPO
- MDOT hired an archeologist and historian
- Effective Jan 2023 – Apps to MDOT not SHPO

5. AASHTO A Policy on Geometric Design of Highways and Streets, 7th Edition (2018 Green Book)

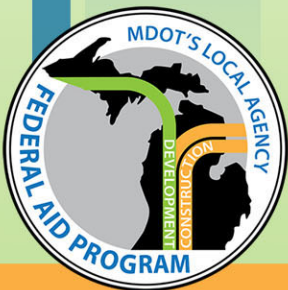
- MDOT Operations Committed has approved!!
- Does not apply to other AASHTO Design Guides or the Manual on Uniform Traffic Control Devices (MUTCD)



Bridge Construction

The Don'ts of Bridge Construction

- We know the Do's.....but here are a few examples of the Don'ts



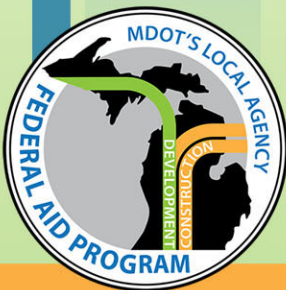
Bridge Construction

Don'ts of Bridge Construction



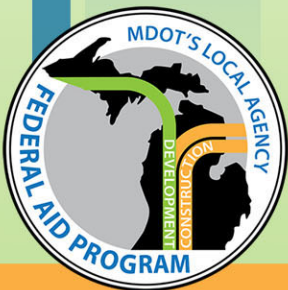
Bridge Construction

Don'ts of Bridge Construction



Local Bridge Staff

- **Keith Cooper: Bridge Program Manager**
 - Phone: (517) 331-1395 – Cell Phone
 - Email: CooperK@michigan.gov
- **Monica Uribe: Project Develop. Engineer**
 - Phone: (517) 335-4522
 - Email: UribeM1@michigan.gov
- **Rita Levine: Bridge/Rural Staff Engineer**
 - Phone: (517) 335-4528
 - Email: LevineR@michigan.gov



Local Bridge Staff

- **Tim Barry: Bridge Staff Engineer**

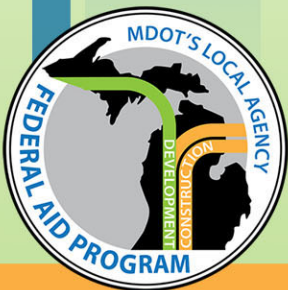
- Phone: (517) 275-1751 – Cell Phone
- Email: BarryT@michigan.gov

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Questions?