

# Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575

Telephone: (517) 546-4250 • Facsimile: (517) 546-9628

Internet Address: [www.livingstonroads.org](http://www.livingstonroads.org)

## BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON

### AGENDA

March 14, 2024

9:30 A.M.

- A. CALL TO ORDER
- B. PLEDGE OF ALLEGIANCE
- C. ROLL CALL
- D. APPROVAL OF AGENDA

**ACTION:** Staff recommends approval as presented

- E. CALL TO THE PUBLIC (1)
- F. ACTION ITEMS

- 1. Bid Acceptance
  - 2024 Pavement Marking Project  
(Resolution 2403-017)

**ACTION:** Staff recommends approval

- 2. Traffic Control Order 24-001
  - Merrill Road, Hamburg Township  
(Resolution 2403-018)

**ACTION:** Staff recommends approval

- 3. Traffic Control Order 24-002
  - Grand River Avenue and Gregory Road, Handy Township  
(Resolution 2403-019)

**ACTION:** Staff recommends approval

- 4. Project Agreements – Genoa Township
  - Euler Road
  - Kellogg Road (2)
  - McClements Road  
(Resolution 2403-020)

**ACTION:** Staff recommends approval

5. Employee Recognition
  - Todd Ames - 30<sup>TH</sup> Anniversary  
(Resolution 2403-021)

**ACTION:** Staff recommends approval

6. Local Bridge Applications – Fiscal Year 2027
  - Mason Road over the Red Cedar Imp. Drain  
(Resolution 2403-022)
  - Fowlerville Road over the Red Cedar River  
(Resolution 2403-023)
  - Milett Road over the Red Cedar River  
(Resolution 2403-024)
  - Preventive Maintenance on Byron Road over Stoner Creek, Byron Road over the Shiawassee River, and Oak Grove Road over the Shiawassee River  
(Resolution 2403-025)

**ACTION:** Staff recommends approval

7. Project Agreements – Howell Township
  - Bowen Road
  - Layton Road  
(Resolution 2403-026)

**ACTION:** Staff recommends approval

## **G. INFORMATION AND REPORTS**

1. Salt Usage

## **H. CALL TO THE PUBLIC (2)**

## **I. LEGAL**

## **J. ADMINISTRATIVE BUSINESS**

1. Minutes
  - a. Regular Board Meeting – February 29, 2024

**ACTION:** Staff recommends approval

2. Bills

**ACTION:** Staff recommends approval

3. Meetings Announced
  - a. Next Regular Board Meeting – March 28, 2024

4. Financial Reports
  - a. Cash Position Statement
  - b. MTF
5. Miscellaneous Road Items

**K. ADJOURNMENT**

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**F.1.**

## MEMO

Date: March 4, 2024

To: Board of County Road Commissioners

From: Michael Goryl, Traffic and Safety Engineer M.G.

Re: Agenda Item for March 14, 2024 Board Meeting  
2024 Pavement Marking Program

Attached is a tabulation of bids for our 2024 Pavement Marking Program.

The lowest bid was M&M Pavement Marking, Inc. with a bid total of \$436,625.00 which is 7.00% below our Engineer's Estimate of \$469,500.00

M&M Pavement Marking has been awarded the contract for our annual pavement marking program in many previous years, including last year. They have always done a good job for us and are well qualified.

I recommend that we accept the bid of M&M Pavement Marking, Inc. for the 2024 Pavement Marking Program based on low bid and experience. A resolution is attached for this purpose.

**RESOLUTION OF THE**

**NUMBER:**

**2403-017**

**BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON**

**DATE:**

**March 14, 2024**

---

**Resolution Approving the 2024 Countywide Pavement Marking Project**

- WHEREAS,** the Livingston County Road Commission advertised for bids for the 2024 Countywide Pavement Marking Project, and
- WHEREAS,** sealed proposals and bids were opened on February 29, 2024, for same Pavement Marking Project, and
- WHEREAS,** the Traffic and Safety Director has recommended that the Board of County Road Commissioners accept the low bid of M&M Pavement Marking, Inc. as the bid in the best interest of the Livingston County Road Commission, now therefore be it
- RESOLVED,** that the Board of County Road Commissioners of the County of Livingston approves the bid of M&M Pavement Marking, Inc. for the 2024 Countywide Pavement Marking Project, and be it further
- RESOLVED,** that the Managing Director is authorized to sign contract documents for the 2024 Countywide Pavement Marking Project on behalf of the Board.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

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Steven J. Wasylk, Managing Director

# Bid Comparison

**Contract ID:** 24-001  
**Description:**  
**Location:** County Wide Pavement Marking  
**Projects(s):** 467.2-24

Rank	Bidder	Total Bid	% Over Low	% Over Est.
0	ENGINEER'S ESTIMATE	\$469,500.00	7.52%	0.00%
1	(_05071) M & M Pavement Marking, Inc.	\$436,625.00	0.00%	-7.00%
2	(_01684) P.K. Contracting	\$445,280.00	1.98%	-5.15%

Line	Pay Item Code	Quantity	Units	(0) ENGINEER'S ESTIMATE		(1) M & M Pavement Marking, Inc.		(2) P.K. Contracting	
				Bid Price	Total	Bid Price	Total	Bid Price	Total
0001	8110024	600	Ft	\$4.000	\$2,400.00	\$3.500	\$2,100.00	\$3.250	\$1,950.00
	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk								
0002	8110041	200	Ft	\$8.000	\$1,600.00	\$1.100	\$220.00	\$6.500	\$1,300.00
	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk								
0003	8110045	800	Ft	\$13.500	\$10,800.00	\$12.000	\$9,600.00	\$13.000	\$10,400.00
	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar								
0004	8110063	20	Ea	\$160.000	\$3,200.00	\$150.000	\$3,000.00	\$160.000	\$3,200.00
	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym								

Line	Pay Item Code	Quantity	Units	Description	(0) ENGINEER'S ESTIMATE		(1) M & M Pavement Marking, Inc.		(2) P.K. Contracting	
					Bid Price	Total	Bid Price	Total	Bid Price	Total
0005	8110065	1	Ea	Pavt Mrkg, Ovly Cold Plastic, Merge	\$300.000	\$300.00	\$300.000	\$300.00	\$300.000	\$300.00
0006	8110068	4	Ea	Pavt Mrkg, Ovly Cold Plastic, Only	\$170.000	\$680.00	\$150.000	\$600.00	\$160.000	\$640.00
0007	8110071	6	Ea	Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow Sym	\$170.000	\$1,020.00	\$150.000	\$900.00	\$160.000	\$960.00
0008	8110077	2	Ea	Pavt Mrkg, Ovly Cold Plastic, Thru and Rt Turn Arrow Sym	\$300.000	\$600.00	\$300.000	\$600.00	\$270.000	\$540.00
0009	8110231	3,600,000	Ft	Pavt Mrkg, Waterborne, 4 inch, White	\$0.063	\$226,800.00	\$0.058	\$208,800.00	\$0.057	\$205,200.00
0010	8110232	3,400,000	Ft	Pavt Mrkg, Waterborne, 4 inch, Yellow	\$0.063	\$214,200.00	\$0.060	\$204,000.00	\$0.063	\$214,200.00
0011	8117001	100	Ft	_ Pavt Mrkg, Waterborne, 24 inch, Stop Bar	\$2.500	\$250.00	\$2.300	\$230.00	\$2.500	\$250.00
0012	8117050	35	Ea	_ Pavt Mrk, Waterborne, Railroad Sym	\$150.000	\$5,250.00	\$125.000	\$4,375.00	\$120.000	\$4,200.00
0013	8117050	6	Ea	_ Pavt Mrkg, Waterborne, Lt Turn Arrow Sym	\$60.000	\$360.00	\$50.000	\$300.00	\$50.000	\$300.00
0014	8117050	4	Ea	_ Pavt Mrkg, Waterborne, Rt Turn Arrow Sym	\$60.000	\$240.00	\$50.000	\$200.00	\$50.000	\$200.00
0015	8117050	8	Ea	_ Pavt Mrkg, Waterborne, Stop Ahead	\$100.000	\$800.00	\$100.000	\$800.00	\$105.000	\$840.00
0016	8120210	1,000	Ft	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	\$1.000	\$1,000.00	\$0.600	\$600.00	\$0.800	\$800.00
<b>Bid Totals:</b>						<b>\$469,500.00</b>		<b>\$436,625.00</b>		<b>\$445,280.00</b>

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F.2.

## MEMO

Date: March 4, 2024

To: Board of County Road Commissioners

From: Mike Goryl, Traffic & Safety Engineer *M.G.*

Re: Agenda Item for March 14, 2024 Board Meeting  
TCO for Temporary Speed Limit on Merrill Road, Hamburg Twp.

Attached is a resolution to approve a traffic control order for a temporary speed limit of thirty-five (35) miles per hour on Merrill Road. Hamburg Township is requesting the speed zone for two different events at the Township Park. The first event is for the annual Hamburg Family Fun Fest scheduled for June 12-16, 2024. The second event is for the Vietnam Memorial Moving Wall scheduled for September 12-16, 2024.

Staff recommends approval.

If approved, LCRC will provide speed limit signs at various locations along the road.



RESOLUTION OF THE

NUMBER: 2403-018

BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON

DATE: March 14, 2024

Resolution for Adoption of Traffic Control Order 24-001 for Placement of Temporary Speed Limit Signs - Merrill Road, Hamburg Township

**WHEREAS,** resolutions were adopted by the Hamburg Township Board to petition the Livingston County Road Commission for a speed limit reduction on Merrill Road during the Hamburg Family Fun Fest scheduled for June 12-16, 2024, and during the Vietnam Memorial Moving Wall scheduled for September 12-16, 2024, and

**WHEREAS,** Engineering and Traffic Investigations were conducted pursuant to Act 300, P.A. 1949 with respect to the county roads listed below in the Township of Hamburg, and

**WHEREAS,** it was determined by said Engineering and Traffic Investigations that proper Traffic Control Devices were needed on a temporary basis to provide safe and reasonable control of traffic, now therefore be it

**RESOLVED,** that in accordance with Traffic Control Order No. 24-001, the Livingston County Road Commission erect and maintain appropriate regulatory devices during the periods June 12-16, 2024, and September 12-16, 2024, in conformity with the Michigan Manual of Uniform Traffic Control Devices, which gives notice of the following determination:

Place 35 MPH Speed Limit sign(s) at the following location(s):  
**MERRILL ROAD, from STRAWBERRY LAKE ROAD to M-36**  
and be it further

**RESOLVED,** that any Traffic Control Orders heretofore made with respect to the foregoing are hereby rescinded and superseded, and be it further

**RESOLVED,** that the Traffic Control Order becomes effective when signs giving notice of same have been erected, and be it further

**RESOLVED,** that the Managing Director sign said Order on behalf of the Board.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

\_\_\_\_\_  
Steven J. Wasylk, Managing Director

## Livingston County Road Commission

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**F.3.**

### MEMO

Date: March 4, 2024

To: Board of County Road Commissioners

From: Mike Goryl, Traffic and Safety Engineer *M.G.*

Re: Agenda Item for March 14, 2024 Board Meeting  
Resolution for TCO 24-002  
Annual placement of signs near Fowlerville Fairgrounds

Attached is a resolution for your consideration to authorize approval of a traffic control order for various no parking and speed limit signs along Grand River Avenue and Gregory Road near the Fowlerville Fairgrounds.

The no parking signs on both Grand River Avenue and Gregory Road will be installed on Friday June 28, in time for the July 4th fireworks. These signs will stay up until August 19, through the Fowlerville Fair (scheduled July 22 – July 27) and the Easy Rider motorcycle event (expected schedule August 16-18).

The speed limit signs on Grand River Avenue will go up July 19 and be removed July 29 to cover the week of the Fair.

Staff recommends approval of the resolution.

RESOLUTION OF THE

NUMBER:

2403-019

BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON

DATE:

March 14, 2024

---

Resolution for Adoption of Traffic Control Order 24-002 for Placement of No Parking and Speed Limit Signs, Grand River Avenue and Gregory Road, Handy Township

**WHEREAS,** Engineering and Traffic Investigations were conducted pursuant to Act 300, P.A. 1949 with respect to the county roads listed below in the Township of Handy, and

**WHEREAS,** it was determined by said Engineering and Traffic Investigations that proper Traffic Control Devices are needed on a temporary basis to provide safe and reasonable control of traffic, now therefore be it

**RESOLVED,** that in accordance with Traffic Control Order No. 24-002, the Livingston County Road Commission erect and maintain appropriate regulatory devices during the periods described below, in conformity with the Michigan Manual on Uniform Traffic Control Devices, which gives notice of the following determination:

No Parking at any time within the right-of-way on either side of Grand River Avenue from Gregory Road to the westerly limits of the Village of Fowlerville: Effective June 28 through August 19, 2024,

No Parking at any time within the right-of-way on either side of Gregory Road from Grand River Avenue to a point 1000 feet north of Grand River Avenue: Effective June 28 through August 19, 2024,

A speed limit of thirty-five (35) miles per hour on Grand River Avenue from Gregory Road to the westerly limits of the Village of Fowlerville: Effective July 19 through July 29, 2024,

and be it further

**RESOLVED,** that any Traffic Control Orders heretofore made with respect to the foregoing are hereby rescinded and superseded, and be it further

**RESOLVED,** that the Traffic Control Order becomes effective when signs giving notice of same have been erected, and be it further

**RESOLVED,** that the Managing Director sign said Order on behalf of the Board.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasylk, Managing Director

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F.4.

## MEMORANDUM

**Date:** March 14, 2024

**To:** Board of County Road Commissioners

**From:** Steve Wasylk, Managing Director

**Subject:** Project Agreements – Genoa Township

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Attached are four project agreements authorized by Genoa Township for road improvements. The project locations are listed below.

1. Euler Road – between McClements Road and the end of the pavement
2. Kellogg Road – between Golf Club Road and McClements Road
3. Kellogg Road – between Grand River Avenue and McClements Road
4. McClements Road – between Kellogg Road and Hacker Road

Staff recommends approval of the agreements and the associated resolution.

RESOLUTION OF THE

NUMBER:

2403-020

BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON

DATE:

March 14, 2024

---

Resolution Accepting Four Project Agreements with Genoa Township

**WHEREAS,** Genoa Township wishes to provide improvements to the following road segments in accordance with cost estimates prepared by Livingston County Road Commission staff:

- Euler Road – between McClements Road and the end of the pavement
- Kellogg Road – between Golf Club Road and McClements Road
- Kellogg Road – between Grand River Avenue and McClements Road
- McClements Road – between Kellogg Road and Hacker Road

and

**WHEREAS,** Genoa Township has approved the associated project agreements, now therefore be it

**RESOLVED,** that the Board of County Road Commissioners of the County of Livingston approves said project agreements with Genoa Township for road improvements as indicated in the agreements, and be it further

**RESOLVED,** that the Board authorizes the Managing Director and the Director of Finance to sign the agreements on their behalf.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasylk, Managing Director

# PROJECT AGREEMENT

JOB NUMBER: 489.05.5133BV

This Agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2024 by and between the TOWNSHIP of GENOA, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

## WITNESSETH

The Township has selected the following road to be improved as described below:

**EULER ROAD  
(FROM END OF PAVEMENT TO MCCLEMENTS ROAD)  
APPROXIMATELY 4,900 FEET  
GRAVEL RESURFACING, LIMITED DRAINAGE  
ALTOGETHER WITH THE NECESSARY RELATED WORK**

The parties agree as follows:

1. The Township shall pay the Road Commission 100% of the cost of the project, as follows:  
\$90,000.
  - A. The balance shall be paid promptly as invoiced.
  - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
  - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
3. The work will be completed within the current contract year, unless the parties otherwise so agree.
4. In the event the project cannot be completed due to circumstances beyond the control of the Road Commission, and through no fault of the Road Commission, the contract price for later completion will be subject to renegotiation.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

TOWNSHIP OF GENOA

BY: Bill Rogers  
BILL ROGERS, SUPERVISOR

Paulette A. Skolarus  
PAULETTE A. SKOLARUS, CLERK

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON

BY: \_\_\_\_\_  
STEVEN J. WASYLK, MANAGING DIRECTOR

\_\_\_\_\_  
SARAH R. NEWTON, DIRECTOR OF FINANCE

# PROJECT AGREEMENT

JOB NUMBER: 489.05.5135BV

This Agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2024 by and between the TOWNSHIP of GENOA, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

## WITNESSETH

The Township has selected the following road to be improved as described below:

**KELLOGG ROAD  
(FROM GOLF CLUB ROAD TO MCCLEMENTS ROAD)  
APPROXIMATELY 5,370 FEET  
LIMESTONE RESURFACING, LIMITED DRAINAGE  
ALTOGETHER WITH THE NECESSARY RELATED WORK**

The parties agree as follows:

1. The Township shall pay the Road Commission 100% of the cost of the project, as follows:  
\$125,000.
  - A. The balance shall be paid promptly as invoiced.
  - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
  - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
3. The work will be completed within the current contract year, unless the parties otherwise so agree.
4. In the event the project cannot be completed due to circumstances beyond the control of the Road Commission, and through no fault of the Road Commission, the contract price for later completion will be subject to renegotiation.



IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

TOWNSHIP OF GENOA

BY: Bill Rogers  
BILL ROGERS, SUPERVISOR

Paulette A. Skolarus  
PAULETTE A. SKOLARUS, CLERK

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON

BY: \_\_\_\_\_  
STEVEN J. WASYLK, MANAGING DIRECTOR

\_\_\_\_\_  
SARAH R. NEWTON, DIRECTOR OF FINANCE

# PROJECT AGREEMENT

JOB NUMBER: 489.05.5134BV

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## WITNESSETH

The Township has selected the following road to be improved as described below:


**KELLOGG ROAD  
(FROM GRAND RIVER AVENUE TO MCCLEMENTS ROAD)  
APPROXIMATELY 6,065 FEET  
GRAVEL RESURFACING, LIMITED DRAINAGE  
ALTOGETHER WITH THE NECESSARY RELATED WORK**


The parties agree as follows:

1. The Township shall pay the Road Commission 100% of the cost of the project, as follows:  
\$105,000.
  - A. The balance shall be paid promptly as invoiced.
  - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
  - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
3. The work will be completed within the current contract year, unless the parties otherwise so agree.
4. In the event the project cannot be completed due to circumstances beyond the control of the Road Commission, and through no fault of the Road Commission, the contract price for later completion will be subject to renegotiation.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

TOWNSHIP OF GENOA

BY:   
BILL ROGERS, SUPERVISOR

  
PAULETTE A. SKOLARUS, CLERK

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON

BY: \_\_\_\_\_  
STEVEN J. WASYLK, MANAGING DIRECTOR

\_\_\_\_\_  
SARAH R. NEWTON, DIRECTOR OF FINANCE

# PROJECT AGREEMENT

JOB NUMBER: 489.05.5136BV

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## WITNESSETH

The Township has selected the following road to be improved as described below:

**MCCLEMENTS ROAD  
(FROM KELLOGG ROAD TO HACKER ROAD)  
APPROXIMATELY 5,472 FEET  
LIMESTONE RESURFACING, LIMITED DRAINAGE  
ALTOGETHER WITH THE NECESSARY RELATED WORK**

The parties agree as follows:

1. The Township shall pay the Road Commission 100% of the cost of the project, as follows: \$127,000.
  - A. The balance shall be paid promptly as invoiced.
  - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
  - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
3. The work will be completed within the current contract year, unless the parties otherwise so agree.
4. In the event the project cannot be completed due to circumstances beyond the control of the Road Commission, and through no fault of the Road Commission, the contract price for later completion will be subject to renegotiation.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

TOWNSHIP OF GENOA

BY: Bill Rogers  
BILL ROGERS, SUPERVISOR

Paulette A. Skolarus  
PAULETTE A. SKOLARUS, CLERK

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON

BY: \_\_\_\_\_  
STEVEN J. WASYLK, MANAGING DIRECTOR

\_\_\_\_\_  
SARAH R. NEWTON, DIRECTOR OF FINANCE

# Livingston County Road Commission

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Telephone: (517) 546-4250 • Facsimile: (517) 546-9628

Internet Address: [www.livingstonroads.org](http://www.livingstonroads.org)

**F.5.**

## MEMORANDUM

**Date:** March 14, 2024

**To:** Board of County Road Commissioners

**From:** Steve Wasylk, Managing Director

**Subject:** Employee Recognition – Todd Ames 30<sup>th</sup> Anniversary

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Todd Ames will reach his 30<sup>th</sup> anniversary with the Road Commission on April 4, 2024. Staff recommends approval of the attached resolution honoring Todd for his three decades of dedicated service to the Road Commission and to the citizens of Livingston County.

**RESOLUTION OF THE**

**NUMBER:**

**2403-021**

**BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON**

**DATE:**

**March 14, 2024**

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**Resolution Commending Todd Ames for Thirty Years of Service**

- WHEREAS,** Todd Ames began work with the Livingston County Road Commission on April 4, 1994, and
- WHEREAS,** Todd has diligently demonstrated his expertise over the years as an Engineering Technician, part-time IT professional, and office handyman, and
- WHEREAS,** Todd's pleasant nature and willingness to tackle any task have attributed to the successful completion of hundreds of road and bridge projects and the solution to an incalculable number of employee computer problems, now therefore be it
- RESOLVED,** that the Board of County Road Commissioners of the County of Livingston hereby congratulates Todd Ames for his 30 years of service, and be it further
- RESOLVED,** that the Board commends and thanks Todd for his dedication to the citizens of Livingston County during his career with the Livingston County Road Commission.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasylk, Managing Director

**MEMORANDUM**

**Date:** March 14, 2024  
**To:** Board of County Road Commissioners  
**From:** Steve Wasylk, Managing Director  
**Subject:** Bridge Applications for Fiscal Year 2027

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Annually, the Michigan Department of Transportation (MDOT) issues a call for projects to local agencies for bridge repair and replacement. This year, we are recommending that four bridge projects be considered by MDOT for funding under this program for fiscal year 2027.

The details of the four proposed bridge projects are attached for your review in priority order. As part of the application process, the Board must approve the projects by individual resolution. The four required resolutions are included after the descriptions of all four proposed projects. Listed in priority order, the recommended bridge projects are as follows:


1. Superstructure Replacement of the Mason Road bridge over the Red Cedar River Imp. Drain in Iosco Township
2. Superstructure Replacement of the Fowlerville Road bridge over the Red Cedar River in Handy Township
3. Total Replacement of the Milet Road bridge over the Red Cedar River in Howell Township
4. Preventive Maintenance on the following three bridges in Cohoctah Township - the Byron Road bridge over Stoner Creek, the Byron Road bridge over the Shiawassee River, and the Oak Grove Road bridge over the Shiawassee River



MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5814

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b> MASON ROAD	<b>Latitude / Longitude</b> 42.5993 / -84.0745	<b>MDOT Structure ID</b> 47200017000B020	<b>Structure Condition</b> Poor Condition(4)	
<b>Feature</b> RED CEDAR RIVER IMP. DRN	<b>Length / Width / Spans</b> 35.8 / 46.3 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 3 IOSCO TWP	<b>Built / Recon. / Paint / Ovly.</b> 1990 / / 1990 / 1990	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(366666)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 04 Tee Beam	<b>Last NBI Inspection</b> 08/30/2023 / 28NE	<b>Scour Evaluation</b> U Unknown Scour	

NBI INSPECTION

28NE

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	08/30/2023

GENERAL NOTES

Weight limit signs in place on both ends of bridge	YES
Weight limit shown on signs at bridge	366666
Required advance warning weight limit signs in place	YES
Weight limit shown on advance warning signs	366666

Frequency Justification Comments (required when Poor Condition and frequency is equal to 24 months)

Deterioration of stringers was moderate from the past inspection cycle. A 24 month inspection cycle is still appropriate for this structure.


DECK

	08/19	08/21	08/23	
<b>1. Surface (SIA-58A)</b>	6	6	5	Bit surface longitudinal and transverse cracks in HMA throughout. Some cracks are wide and open. Dirt on shoulder in front of railing posts. Some pavement raveling at westbound lane line crack. (08/23) Bit surface longitudinal and transverse cracks in HMA throughout. Some cracks are wide and open. Dirt on shoulder in front of railing posts. (08/21) Bit surface longitudinal and transverse cracks in HMA throughout. Some cracks are wide and open. Dirt on shoulder in front of railing posts. (08/19)
<b>2. Expansion Joints</b>	6	6	5	Asphalt over joints. Partially sealed crack at east reference line that needs to be resealed. West has full width cracking. Some raveling of pavement around cracks. Raveling of pavement at both reference lines. (08/23) Asphalt over joints. Partially sealed crack at east reference line that needs to be resealed. West has full width cracking. Some raveling of pavement around cracks. (08/21) Asphalt over joints. Partially sealed crack at east reference line that needs to be resealed. West has full width cracking. Some raveling of pavement around cracks. (08/19)
<b>3. Other Joints</b>	N	N	N	(08/23) (08/21) (08/19)
<b>4. Railings</b>	7	7	7	Open concrete railing. Map cracks with leaching and rusted rebar ends at bottom of rail. (08/23) Open concrete railing. Map cracks with leaching and rusted rebar ends at bottom of rail. (08/21) Open concrete railing. Map cracks with leaching and rusted rebar ends at bottom of rail. (08/19)
<b>5. Sidewalks or Curbs</b>	N	N	N	(08/23) (08/21) (08/19)
<b>6. Deck Bottom Surface (SIA-58B)</b>	N	N	N	No structural deck. HMA surface wearing on beams. (08/23) No structural deck. HMA surface wearing on beams. (08/21) No structural deck. HMA surface wearing on beams. (08/19)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5814

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<b>Feature</b> RED CEDAR RIVER IMP. DRN	<b>Length / Width / Spans</b> 35.8 / 46.3 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 3 IOSCO TWP	<b>Built / Recon. / Paint / Ovly.</b> 1990 / / 1990 / 1990	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(366666)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 04 Tee Beam	<b>Last NBI Inspection</b> 08/30/2023 / 28NE	<b>Scour Evaluation</b> U Unknown Scour	

<b>7. Deck (SIA-58)</b>	4	4	4	No structural deck. Rating based on condition of superstructure. Bit surface longitudinal and transverse cracks in HMA throughout. Some cracks are wide and open. Dirt on shoulder in front of railing posts. Some pavement raveling at westbound lane line crack. Spalling along both fascias (08/23) No structural deck. Rating based on condition of superstructure. (08/21) No structural deck. Rating based on condition of superstructure. (08/19)
<b>8. Drainage</b>				Gravel and vegetation along barrier. SE quadrant does not drain well because of high shoulders. (08/23) Gravel and vegetation along barrier. SE quadrant does not drain well because of high shoulders. (08/21) Gravel and vegetation along barrier. SE quadrant does not drain well because of high shoulders. (08/19)

SUPERSTRUCTURE

	08/19	08/21	08/23	
<b>9. Stringer (SIA-59)</b>	4	4	4	Double T-beams. No deterioration of stems. isolated corner cracking at bearings. North fascia spalled along entire length. South fascia spalled to steel along entire length. Delamination, cracking and spalling at joints 2, 4 & 6 from the south. Delamination over 90% of length and spalled to steel with broken strands in the middle 1/2 at joints 3 4 & 5 from the south. The joint is still tight at the top flange but the bottom 2-3 inches by 6" wide is spalled along each flange as described above. Some strands have fallen off of spalled flange areas. (08/23) Double T-beams. No deterioration of stems. North fascia spalled along entire length. South fascia spalled to steel along entire length. Delamination, cracking and spalling at joints 2, 4 & 6 from the south. Delamination over 90% of length and spalled to steel with broken strands in the middle 1/2 at joints 3 4 & 5 from the south. The joint is still tight at the top flange but the bottom 2-3 inches by 6" wide is spalled along each flange as described above. (08/21) Double T-beams. No deterioration of stems. North fascia spalled along entire length. South fascia spalled to steel along entire length. Delamination, cracking and spalling at joints 2, 4 & 6 from the south. Delamination over 90% of length and spalled to steel with broken strands in the middle 1/2 at joints 3 4 & 5 from the south. The joint is still tight at the top flange but the bottom 2-3 inches by 6" wide is spalled along each flange as described above. (08/19)
<b>10. Paint (SIA-59A)</b>	N	N	N	(08/23) (08/21) (08/19)
<b>11. Section Loss</b>	N	N	N	(08/23) (08/21) (08/19)
<b>12. Bearings</b>	7	7	7	Steel plates and elastomeric bearings working as intended. (08/23) Steel plates and elastomeric bearings working as intended. (08/21) Steel plates and elastomeric bearings working as intended. (08/19)


SUBSTRUCTURE

	08/19	08/21	08/23	
<b>13. Abutments (SIA-60)</b>	7	7	7	Isolated vertical cracks in abutments at large spacing. (08/23) One vertical crack under joint 5 from south. (08/21) One vertical crack under joint 5 from south. (08/19)
<b>14. Piers (SIA-60)</b>	N	N	N	(08/23) (08/21) (08/19)
<b>15. Slope Protection</b>	N	N	N	(08/23) (08/21) (08/19)

MICHIGAN DEPARTMENT OF TRANSPORTATION

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<b>Location</b> SEC 3 IOSCO TWP	<b>Built / Recon. / Paint / Ovly.</b> 1990 / / 1990 / 1990	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(366666)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 04 Tee Beam	<b>Last NBI Inspection</b> 08/30/2023 / 28NE	<b>Scour Evaluation</b> U Unknown Scour	

<b>16. Channel (SIA-61)</b>	8	8	8	Wide channel with well vegetated banks. Flow is along west abutment. Silty muck bank along east abutment. (08/23) Wide channel with well vegetated banks. Flow is along west abutment. Silty muck bank along east abutment. (08/21) Wide channel with well vegetated banks. Flow is along west abutment. Silty muck bank along east abutment. (08/19)
<b>17. Scour Inspection</b>	7	7	7	No signs of scour. No slope protection (08/23) No signs of scour. No slope protection (08/21) No signs of scour. No slope protection (08/19)

**APPROACH**

	08/19	08/21	08/23	
<b>18. Approach Pavement</b>	5	5	4	Large transverse crack in HMA west approach 15' W of reference line, minor other cracks in the HMA on the west approach. East approach has minor cracking in the eastbound lane and significant alligator cracking and rutting in the westbound lane approximately 15' east of the reference line with some settling and cold patch. Cracks continue to expand and ravel at edges. (08/23) Large transverse crack in HMA west approach 15' W of reference line, minor other cracks in the HMA on the west approach. East approach has minor cracking in the eastbound lane and significant alligator cracking and rutting in the westbound lane approximately 15' east of the reference line with some settling and cold patch (08/21) Large transverse crack in HMA west approach 15' W of reference line, minor other cracks in the HMA on the west approach. East approach has minor cracking in the eastbound lane and significant alligator cracking and rutting in the westbound lane approximately 15' east of the reference line with some settling and cold patch (08/19)
<b>19. Approach Shoulders Sidewalks</b>	7	7	7	Guardrail has signs of minor scrapes. The NE & NW quads have twisted spacer blocks and split. Minor transverse cracking in approach shoulders. Major impact damage to approach rail in NW quadrant (08/23) Guardrail has signs of minor scrapes. The NE & NW quads have twisted spacer blocks and split. Minor transverse cracking in approach shoulders. Major impact damage to approach rail in NW quadrant (08/21) Guardrail has signs of minor scrapes. The NE & NW quads have twisted spacer blocks and split. Minor transverse cracking in approach shoulders. Major impact damage to approach rail in NW quadrant (08/19)
<b>20. Approach Slopes</b>				No sign of erosion. (08/23) No sign of erosion. (08/21) No sign of erosion. (08/19)
<b>21. Utilities</b>				Phone markers in SW & SE quads. Phone box in NW & SW quad. Conduit at south fascia connected to the railing & 2 conduits at north fascia. Overhead electrical 200' north of bridge. (08/23) Phone markers in SW & SE quads. Phone box in NW & SW quad. Conduit at south fascia connected to the railing & 2 conduits at north fascia. Overhead electrical 200' north of bridge. (08/21) Phone markers in SW & SE quads. Phone box in NW & SW quad. Conduit at south fascia connected to the railing & 2 conduits at north fascia. Overhead electrical 200' north of bridge. (08/19)
<b>22. Drainage Culverts</b>				(08/23) (08/21) (08/19)


**MISCELLANEOUS**

<b>Guard Rail</b>		<b>Other Items</b>	
Item	Rating	Item	Rating
<b>36A. Bridge Railings</b>	0	<b>71. Water Adequacy</b>	8
<b>36B. Transitions</b>	1	<b>72. Approach Alignment</b>	8

MICHIGAN DEPARTMENT OF TRANSPORTATION

**STR 5814**

**BRIDGE SAFETY INSPECTION REPORT**

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<b>Feature</b> RED CEDAR RIVER IMP. DRN	<b>Length / Width / Spans</b> 35.8 / 46.3 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 3 IOSCO TWP	<b>Built / Recon. / Paint / Ovly.</b> 1990 / / 1990 / 1990	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(366666)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 04 Tee Beam	<b>Last NBI Inspection</b> 08/30/2023 / 28NE	<b>Scour Evaluation</b> U Unknown Scour	

<b>36C. Approach Guardrail</b>	0	<b>Temporary Support</b>	0 No Temporary Supports
<b>36D. Approach Guardrail Ends</b>	0	<b>High Load Hit (M)</b>	No
		<b>Special Insp. Equipment</b>	2
		<b>Underwater Insp. Method</b>	1

**False Decking (Timber) Removed to Complete Inspection** N/A - No False Decking


**Critical Feature Inspections (SIA-92)**

	<u>Freq</u>	<u>Date</u>
92A. Fracture Critical		
92B. Underwater		
92C. Other Special		
92D. Fatigue Sensitive		

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5814

STRUCTURE INVENTORY AND APPRAISAL

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
MASON ROAD	42.5993 / -84.0745	47200017000B020	Poor Condition(4)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
RED CEDAR RIVER IMP. DRN	35.8 / 46.3 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 3 IOSCO TWP	1990 / / 1990 / 1990	Brighton(3)	P Posted for load(366666)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	5 Prestressed Concrete / 04 Tee Beam	08/30/2023 / 28NE	U Unknown Scour	

Bridge History, Type, Materials	
27 - Year Built	1990
106 - Year Reconstructed	
202 - Year Painted	1990
203 - Year Overlay	1990
43 - Main Span Bridge Type	5 04
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	0
79 - Rail Type	6
80 - Post Type	0
107 - Deck Type	1
108A - Wearing Surface	6
108B - Membrane	0
108C - Deck Protection	0

Structure Dimensions	
34 - Skew	0
35 - Struct Flared	0
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	31.8
49 - Structure Length	35.8
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	44
52 - Width Out to Out	46.3
112 - NBIS Length	Y

Inspection Data	
90 - Inspection Date	08/30/2023
91 - Inspection Freq	24
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	4
58A/B - Deck Surface/Bottom	5 N
59 - Superstructure Rating	4
59A - Paint Rating	N
60 - Substructure Rating	7
61 - Channel Rating	8
62 - Culvert Rating	N

Navigation Data	
38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brgd Vert Clear	

Route Carried By Structure(ON Record)	
5A - Record Type	1
5B - Route Signing	4
5C - Level of Service	0
5D - Route Number	04750
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000041044 03
19 - Detour Length	4
20 - Toll Facility	3
26 - Functional Class	07
28A - Lanes On	2
29 - ADT	5110
30 - Year of ADT	2020
32 - Appr Roadway Width	44
32A/B - Ap Pvt Type/Width	5 44
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	41.0
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	3
110 - Truck Network	0
114 - Future ADT	6132
115 - Year Future ADT	2039
Freeway	0

Structure Appraisal	
36A - Bridge Railing	0
36B - Rail Transition	1
36C - Approach Rail	0
36D - Rail Termination	0
67 - Structure Evaluation	4
68 - Deck Geometry	6
69 - Underclearance	N
71 - Waterway Adequacy	8
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	U

Miscellaneous	
37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	-1

Route Under Structure (UNDER Record)	
5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	-1
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	


Proposed Improvements	
75 - Type of Work	
76 - Length of Improvement	
94 - Bridge Cost	
95 - Roadway Cost	
96 - Total Cost	
97 - Year of Cost Estimate	

Load Rating and Posting	
31 - Design Load	5
41 - Open, Posted, Closed	P
63 - Fed Oper Rtg Method	6
64F - Fed Oper Rtg Load	1.36
64MA - Mich Oper Rtg Method	6
64MB - Mich Oper Rtg	.92
64MC - Mich Oper Truck	18
65 - Inv Rtg Method	6
66 - Inventory Load	.81
70 - Posting	3
141 - Posted Loading	366666
193 - Overload Class	

MICHIGAN DEPARTMENT OF TRANSPORTATION

**STR 5814**

**WORK RECOMMENDATIONS**

<b>Facility</b> MASON ROAD	<b>Latitude / Longitude</b> 42.5993 / -84.0745	<b>MDOT Structure ID</b> 47200017000B020	<b>Structure Condition</b> Poor Condition(4)	
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**WORK RECOMMENDATIONS**

**28NE**

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	08/30/2023

**RECOMMENDATIONS & ACTION ITEMS**

Recommendation Type	Priority	Description
Joint Repair	H	Seal cracks in deck and at reference lines.
Super Repair	M	Repair top flanges of beams and overlay or replace superstructure.
Other	L	Repair twisted and split spacer blocks on guardrail. Grade shoulders. Monitor beams. Load rate structure - beams have degraded.

# 1a. Situation Map

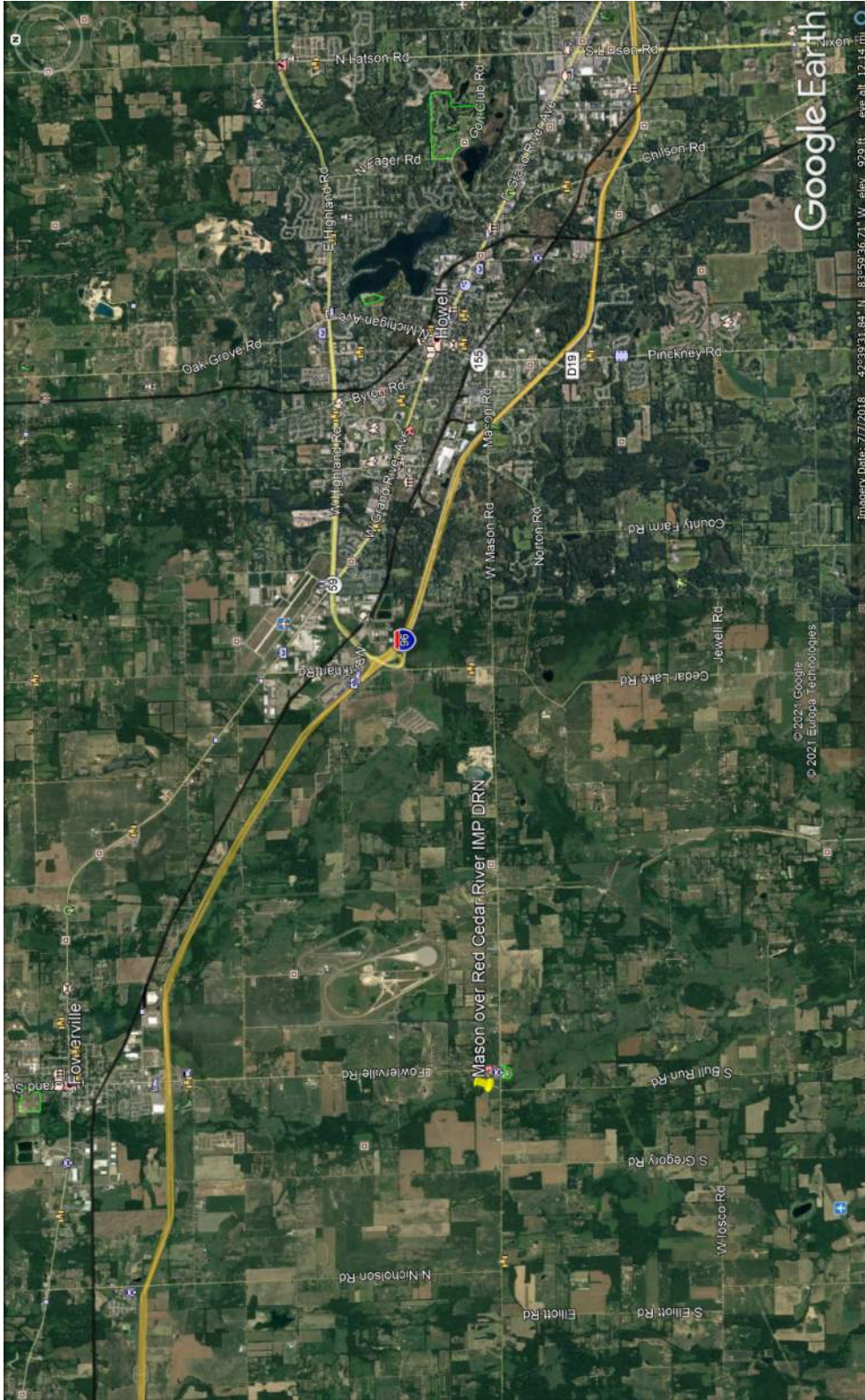
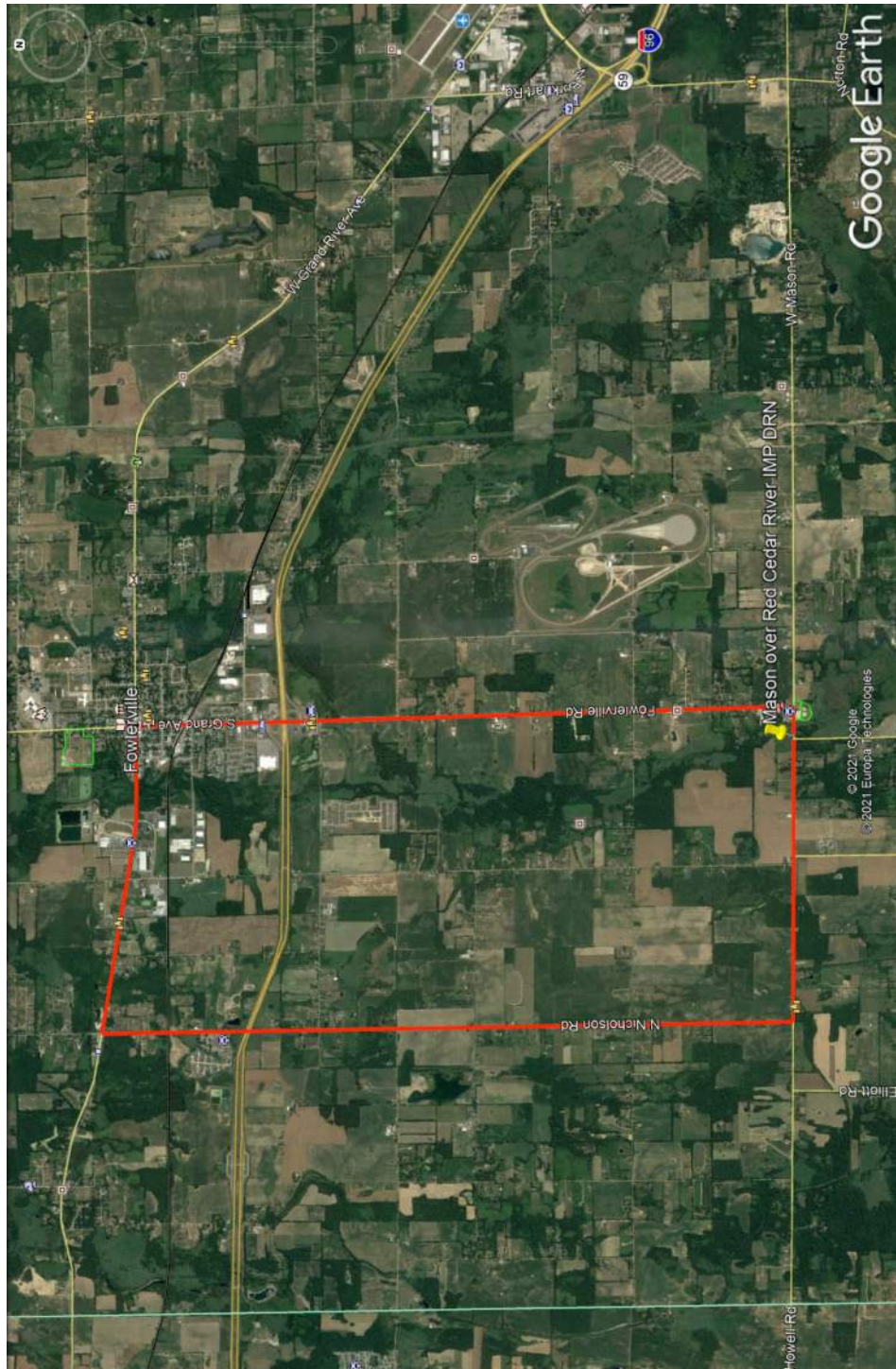


Image from Google Earth

## 2b. Detour Map



W Mason Rd to N Nicholson Rd

To E Grand River Ave

To S Grand Ave

To Fowlerville Rd

To W Mason Rd

Detour: 12.7 miles (Note: Mason is a minor arterial and detour utilizes minor arterial or greater road classifications.)

Image from Google Earth



### 3. Photographs



Eastbound Posted Weight Limit



Westbound Posted Weight Limit



West Approach



East Approach Looking West



West Reference Line



East Reference Line



East Abutment



West Abutment



South Elevation



Underside of Deck at Joint 3



Underside of Deck at Joint 4



Underside of Deck at Joint 5 East



Underside of Deck at Joint 5 West



Barrier



#### **4. Application Requirements for Mason Road over Red Cedar River Imp. Dn.**

##### **A. Local Agency Contact Person**

Steve Wasylk, PE  
Managing Director  
(517) 546-4250

##### **B. The purpose of this application is for the rehabilitation of the bridge carrying Mason Road over Red Cedar River Imp. Dn. Funding requested for superstructure replacement. The Road Commission will provide a funding match of 25% for this project.**

##### **C. Economic Importance of the Structure**

This structure is located in the west-central portion of the county. It is southwest of I-96 and south of downtown Fowlerville. Mason is an east-west minor arterial road, and this bridge carries 8,000 cars per day. Mason takes traffic in and out of Howell and Fowlerville, south/west of I-96 and continues west into Mason. This structure allows motorists quick and easy access to Howell and Fowlerville. It is one of the few minor arterial routes in the area so keeping the route open is critical and therefore the highest priority project for the county. This bridge is also directly adjacent to a community ball fields and a local market/deli.

The existing structure is a prestressed concrete double T-beam structure built in 1990. The existing beams are in poor condition with spalling of the concrete on the bottom of the top flanges. There is corroded rebar, delamination, cracking and spalling at several joint locations. There are also broken strands with a 6" spall on each of the affected flanges. There is significant alligator cracking and rutting in the westbound lane of the east approach approximately 15ft east of the reference line.

Recommended repair for the bridge is a superstructure replacement. The County understands that replacement of a superstructure is abnormal for a 34-year-old structure, however the double T beams used in the superstructure have been problematic to the industry due to the minimal amounts of concrete cover and the general slenderness of the members. T-beams have proven not to be durable bridge beam members and their use has been discontinued. Deterioration of the beams has resulted in enough strength loss to require this bridge to be posted for legal loads. Repairing the top flanges of the beams and providing an overlay was considered but determined to be less cost effective than performing a full superstructure replacement due to the continued maintenance, limited extension of the service life and existing weight limits. The most appropriate repair is to replace the superstructure and to provide minor repairs to the existing abutments, which are in good condition.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: [Livingston County Asset Management Plan](#)

There is a very similar structure on Mason Road east of this location that has deterioration patterns that this one has mimicked. The other structure had more severe deterioration and load restrictions and the superstructure was replaced in 2022. Based on the deterioration rates of that structure which was replaced, it is anticipated that the superstructure of this structure will deteriorate at a similar rate and will require further load restrictions in the near future. The top flanges are continuing to deteriorate, and it's anticipated that in the next couple of year road plate, placed to span the top flanges, or closing the structure will be needed.

**D. If there is a current detour, what does it affect?**

Currently the bridge is open to traffic and there is no detour. The bridge is currently posted for loads.

**E. If the structure were to be closed, what would the detour affect?**

If the structure were to be closed, the detour would affect the many motorists that travel the roadway each day. The roadway is a minor arterial and although much of the local traffic will be able to find a shorter detour the truck traffic will be significantly impacted. This minor arterial is one of only a few, south of I-96. For truck traffic needing to navigate Mason Road the detour is lengthy and time consuming. With fuel prices continuing to be high this adds cost to companies using this roadway.

In addition, the community using the adjacent ball fields or traveling to the local market will be impacted if trying to access the amenities from the west. They will be required to take the 13-mile detour. Since this is a minor arterial, it is also common for emergency services to use this route when accessing the homes and businesses south/west of I-96. It is likely that an alternate detour could be used, but any time added to emergency response will adversely impact help to those in need.

**F. The structure is not currently closed.**

**G. Maintenance of the Structure**

This structure is regularly inspected and maintained. Most recently cracks in the deck and at the reference line have been sealed. This structure has also been posted for legal loads as a result of the deterioration in the beams.

## **5. Estimated Rehabilitation Costs**

<u>Superstructure Replacement</u>	
A. Approach Construction	\$ 740,000.00
B. Structure Construction	\$ 837,000.00
Total (A & B)	\$ 1,577,000.00

For a breakdown of Construction costs see Appendix A. **The Road Commission will provide a funding match of 25% for this project.**

## **6. Priority List**

- 1) **Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation - Superstructure Replacement)**
- 2) Fowlerville Rd over Red Cedar River (Rehabilitation - Superstructure Replacement)
- 3) Milett Rd over Red Cedar River (Bridge Replacement)
- 4) Multiple PM
  - a) Byron Rd over Stoner Creek
  - b) Byron Rd over Shiawassee River
  - c) Oak Grove Rd over Shiawassee River

## **7. Resolution**

The resolution is attached in Appendix B.

## **8. Previous Applications**

It is understood that all previous applications have been discarded and that this application will be used to select funding.

## **APPENDIX A**

**Exhibit 4 - Cost Estimating Worksheet**

**2024**

**BRIDGE COST ESTIMATE WORKSHEET  
- CPM, REHAB, REPLACE -**

REV. 02/8/2024

OWNER: Livingston County	FISCAL YEAR: 2027	Out to Out	Curb to Curb	DATE: 3/8/2024
REGION: University		LENGTH 35.8	WIDTH 46.3	ENGINEER: KSO
TSC: Brighton	PR: #N/A MP: #N/A		WIDTH 44.0	STRUCTURE ID: 5814
	LOCATION: MASON ROAD over RED CEDAR RIVER IMP. DRN			BRIDGE ID: N/A
PRIMARY WORK ACTIVITY Superstructure Replacement		DECK AREA: 1,658	SFT	STR. TYPE: Prestressed Concrete
OTHER WORK: Approach work for profile adjustment		CLEAR ROADWAY: 1,575	SFT	Tee Beam

WORK ACTIVITY	MDOT Bridge Design Guides	QUANTITY	UNIT	UNIT COST	TOTAL
<b>NEW BRIDGE</b> (increase deck area based on design standards and hydraulic requirements)					
Single or Multiple Spans, Grade Separation	(add demo, approach, MOT)		SFT	\$435.00/SFT	
Single Span, Over Water	Length < 100ft (add demo, approach, MOT)		SFT	\$525.00/SFT	
Multiple Spans, Over Water	Length > 100ft (add demo, approach, MOT)		SFT	\$470.00/SFT	
Precast Culvert	Length < 40ft (add demo, approach, MOT)		SFT	\$565.00/SFT	
<b>NEW SUPERSTRUCTURE</b>					
New Superstructure, Grade Separation	(incl. remove exist deck/super; add MOT & approach)		SFT	\$310.00/SFT	
New Superstructure, Over Water	(incl. remove exist deck/super; add MOT & approach)	1,519.0	SFT	\$315.00/SFT	\$478,485.00
<b>WIDENING</b>					
Structure Widening, ft	(incl. deck/super/sub widening, add approach transition)		SFT	\$630.00/SFT	
<b>NEW DECK</b>					
New Bridge Deck & Barrier	(incl. remove exist deck/railing, add approach, MOT)		SFT	\$150.00/SFT	
<b>DEMOLITION</b>					
Entire Structure, Grade Separation			SFT	\$75.00/SFT	
Entire Structure, Over Water			SFT	\$95.00/SFT	
<b>DECK REPAIR / TREATMENTS</b>					
Bridge Railing Replacement	(incl. removal and replacement)		FT	\$750.00/FT	
Concrete Brush Block / Curb Patch	(incl. hand chipping and formwork)		FT	\$29.00/FT	
Concrete Barrier Patch	(incl. hand chipping and formwork)		SFT	\$85.00/SFT	
Concrete Deck Patch	(incl. hand chipping)		SFT	\$68.00/SFT	
Deep Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
Epoxy Overlay	(incl. warranty)		SYD	\$48.00/SYD	
Expansion Joint Gland Replacement	(remove and replace elastomeric gland)		FT	\$125.00/FT	
Expansion Joint Replacement	(incl. removal)		FT	\$860.00/FT	
Full Depth Patch			SFT	\$140.00/SFT	
Healer / Sealer	(penetrates cracks in bridge deck)		SYD	\$30.00/SYD	
HMA Overlay with WP membrane			SYD	\$60.00/SYD	
Overlay Removal	(Epoxy: \$22/syd   Latex: \$26/syd   HMA: \$7/syd)		SYD	\$22.00/SYD	
Reseal Bridge Joints			FT	\$28.00/FT	
Shallow Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
<b>SUPERSTRUCTURE REPAIR</b>					
Bearing Realignment / Replacement	(incl. temporary supports)		EA	\$6,450.00/EA	
Heat Straightening	(incl. clean and coat)		EA	\$57,000.00/EA	
Pack Rust Repair	(greater than 3/8" separation)		FT	\$1,150.00/FT	
Paint - Complete	(incl. clean & coat)		SFT	\$30.00/SFT	
Paint - Partial / Spot / Zone	(incl. clean & coat - \$20k minimum)		SFT	\$60.00/SFT	
PCI Beam End Blockout	(incl. temporary supports)		EA	\$7,200.00/EA	
Pin & Hanger Replacement	(incl. temporary supports)		EA	\$17,000.00/EA	
Structural Steel Repair	(based on 6ft repair length)		EA	\$4,000.00/EA	
Structural Steel Repair - Stiffener	(includes each side of beam)		EA	\$1,500.00/EA	
<b>SUBSTRUCTURE REPAIR</b>					
Substructure Patching	(measured x 2) replace if repair area > 30%	20.0	CFT	\$360.00/CFT	\$7,200.00
Substructure Replacement	(incl. temporary supports, excavation)		CFT	\$375.00/CFT	
Substructure Horizontal Surface Sealer			SYD	\$75.00/SYD	
Temporary Supports	(add Structural Steel Repair - Stiffener for ea steel beam)		EA	\$4,000.00/EA	
<b>MISCELLANEOUS</b>					
Articulating Concrete Block System (ACB)			SYD	\$320.00/SYD	
Concrete Surface Coating			SYD	\$47.00/SYD	
Culvert Cleanout			FT	\$125.00/FT	
Epoxy Crack Injection	(structural crack repair)		FT	\$70.00/FT	
Metal Mesh Panels	(48" width, max 6'-6" length)		SFT	\$28.00/SFT	
Pressure Relief Joint	(use when approach concrete roadway exceeds 1,000ft)		FT	\$110.00/FT	
Riprap	(assume 10ft distance around perimeter of substructure)		SYD	\$275.00/SYD	
Silane Treatment	(penetrating sealer for concrete surfaces)		SFT	\$7.00/SFT	
Slope Protection Repairs			SYD	\$150.00/SYD	
Other	Scour Countermeasures	1.0	LSUM	\$80,000.00/LSUM	\$80,000.00
<b>STRUCTURE CONSTRUCTION BUDGET</b>					<b>\$565,685</b>

<b>ROAD WORK</b>					
Approach Pavement, 12" RC	(incl. removal; add curb, gutter, guardrail) 40' ea. end	356.0	SYD	\$230.00/SYD	\$81,880.00
Approach Curb & Gutter	(incl. removal) 40' ea. quadrant	160.0	FT	\$57.00/FT	\$9,120.00
Guardrail Anchorage to Bridge	(each quadrant)	4.0	EA	\$2,540.00/EA	\$10,160.00
Guardrail	(incl. removal) < 200ft beyond reference line	100.0	FT	\$41.00/FT	\$4,100.00
Guardrail Terminal	(each quadrant)	4.0	EA	\$3,900.00/EA	\$15,600.00
Roadway Approach Work	(beyond approach pavement)	1.0	LSUM	\$350,000.00/LSUM	\$350,000.00
Utilities			LSUM	LSUM	
<b>TRAFFIC CONTROL</b> <i>Unit Cost to be determined by Region or TSC Traffic &amp; Safety</i>					
Part Width Construction			LSUM	LSUM	
Crossovers			EA	/EA	
Temporary Traffic Signals			set	/set	
RR Flagging			LSUM	LSUM	
Detour		1.0	LSUM	\$30,000.00/LSUM	\$30,000.00
<b>RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET</b>					<b>\$500,860</b>

<b>CONTINGENCY</b>	(10% - 20%) (use higher contingency for small projects)	20	%	\$1,067,000.00	\$213,000
<b>MOBILIZATION</b>	(estimate at 10%)	10	%	\$1,280,000.00	\$128,000
<b>INFLATION</b>	(assume 4% per year, beginning in 2025)	12	%	\$1,408,000.00	\$169,000

(Does not include PE or CE)


**TOTAL CONSTRUCTION BUDGET** **\$1,577,000**

## **APPENDIX B**

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5831

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b> FOWLERVILLE ROAD	<b>Latitude / Longitude</b> 42.6417 / -84.0724	<b>MDOT Structure ID</b> 47200035000B010	<b>Structure Condition</b> Poor Condition(4)	
<b>Feature</b> RED CEDAR RIVER	<b>Length / Width / Spans</b> 40 / 34.4 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 22-23 HANDY TWP	<b>Built / Recon. / Paint / Ovly.</b> 1961 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(425567)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/30/2023 / H8T9	<b>Scour Evaluation</b> U Unknown Scour	

NBI INSPECTION

H8T9

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	08/30/2023

GENERAL NOTES

Bridge Posted in 2024 due to strand deterioration.

Weight limit signs in place on both ends of bridge	YES
Weight limit shown on signs at bridge	425567
Required advance warning weight limit signs in place	YES
Weight limit shown on advance warning signs	425567

DECK


08/19 08/21 08/23

	08/19	08/21	08/23	
<b>1. Surface (SIA-58A)</b>	6	6	6	Minor wear of HMA in wheel paths. Light gravel on shoulders and weeds at deck drains. Transverse cracks throughout are unsealed. Longitudinal crack at centerline is unsealed. Pavement raveling at end joints. (08/23) Minor wear of HMA in wheel paths. Light gravel on shoulders and weeds at deck drains. Transverse cracks throughout are unsealed. Longitudinal crack at centerline is unsealed. (08/21) Minor wear of HMA in wheel paths. Light gravel on shoulders and weeds at deck drains. Transverse cracks throughout are unsealed (08/19)
<b>2. Expansion Joints</b>	7	6	6	Paved over. Cracking near both reference lines. Cracks are open and unsealed. Cracks at both ends are mostly unsealed or have poor adhesion. Some pavement raveling on north side. (08/23) Paved over. Cracking near both reference lines. Cracks are open and unsealed. Cracks at both ends are mostly unsealed or have poor adhesion. (08/21) Paved over. Cracking at both reference lines. Cracks are open and unsealed. Cracks at both ends are mostly unsealed or have poor adhesion. (08/19)
<b>3. Other Joints</b>	N	N	N	(08/23) (08/21) (08/19)
<b>4. Railings</b>	7	7	7	No vehicular damage. Corrosion on anchor bolts. Good condition - no approaching guardrail - object marker signs in all 4 quads. Small dent in top rail, east railing near midspan. (08/23) No vehicular damage. Corrosion on anchor bolts. Good condition - no approaching guardrail - object marker signs in all 4 quads. Small dent in top rail, east railing near midspan. (08/21) No vehicular damage. Corrosion on anchor bolts. Good condition - no approaching guardrail - object marker signs in all 4 quads. Small dent in top rail, east railing near midspan. (08/19)
<b>5. Sidewalks or Curbs</b>	6	6	6	Spall to steel in northeast quadrant fascia. Backwall/brush block is delaminated, cracked and leaching in the NE quadrant. (08/23) Spall to steel in northeast quadrant fascia. Backwall/brush block is delaminated, cracked and leaching in the NE quadrant. (08/21) Spall to steel in northeast quadrant fascia. Backwall/brush block is delaminated, cracked and leaching in the NE quadrant. (08/19)
<b>6. Deck Bottom Surface (SIA-58B)</b>	N	N	N	Not visible (Side-by-side box beams) (08/23) Not visible (Side-by-side box beams) (08/21) Not visible (Side-by-side box beams) (08/19)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5831

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<b>Feature</b> RED CEDAR RIVER	<b>Length / Width / Spans</b> 40 / 34.4 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 22-23 HANDY TWP	<b>Built / Recon. / Paint / Ovly.</b> 1961 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(425567)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/30/2023 / H8T9	<b>Scour Evaluation</b> U Unknown Scour	

<b>7. Deck (SIA-58)</b>	6	6	6	Leaking onto beams at south end, north end is wet (suspect HMA overlay only without a deck). Rating based on a combination of surface and stringers. (08/23) Leaking onto beams at south end, north end is wet (suspect HMA overlay only without a deck). Rating based on a combination of surface and stringers. (08/21) Leaking onto beams at south end, north end is wet (suspect HMA overlay only without a deck). Rating based on a combination of surface and stringers. (08/19)
<b>8. Drainage</b>				Deck drains are open. Weeds growing adjacent to drains. Bridge is near high point with dips on each approach. Gravel along curbline. (08/23) Deck drains are open. Weeds growing adjacent to drains. Bridge is near high point with dips on each approach. Gravel along curbline. (08/21) Deck drains are open. Weeds growing adjacent to drains. Bridge is near high point with dips on each approach. Gravel along curbline. (08/19)

**SUPERSTRUCTURE**

	08/19	08/21	08/23	
<b>9. Stringer (SIA-59)</b>	5	5	4	Beam 2W has insipient spall in middle 1/4 of the beam width middle half of span with very little rust staining. Beam 4W has insipient spall 8' long at midspan at west corner with rust staining. Beam 7W has 4' of rust staining, delamination, and cracking on the west side of the beam near midspan. Beam 10W has insipient spall in middle 1/4 of the beam width for south 60% of span with additional longitudinal cracks with rust staining. Joints are leaking with stalactites. Heavy corrosion on post tensioning duct nuts on east fascia. Level of rust staining indicates corrosion of beam strands. (08/23) 2nd beam from west has 2 longitudinal cracks from midspan to the south abutment. Cracks are wet and leaching. Some delamination and vertical separation evident within the bottom flange. 7th beam from west has 4 feet of rust, delamination, and cracking on the west side of the beam near mid span. 10th beam from west has longitudinal cracking, vertical separation and delaminations for east half of the beam from midspan to the south abutment with rust staining. Leaking at every beam joint. (08/21) 2nd beam from west has 2 longitudinal cracks from midspan to the south abutment. Cracks are wet and leaching. Some delamination and vertical separation evident within the bottom flange. 7th beam from west has 4 feet of rust, delamination, and cracking on the west side of the beam near mid span. 10th beam from west has longitudinal cracking, vertical separation and delaminations for east half of the beam from midspan to the south abutment with rust staining. Leaking at every beam joint. (08/19)
<b>10. Paint (SIA-59A)</b>	N	N	N	(08/23) (08/21) (08/19)
<b>11. Section Loss</b>	N	N	N	(08/23) (08/21) (08/19)
<b>12. Bearings</b>	7	7	7	No problems noted. (08/23) No problems noted. (08/21) No problems. (08/19)

**SUBSTRUCTURE**


	08/19	08/21	08/23	
<b>13. Abutments (SIA-60)</b>	6	6	6	Honeycombing throughout. A few hairline cracks. Wingwalls have a few hairline cracks. (08/23) Honeycombing throughout. A few hairline cracks. Wingwalls have a few hairline cracks. (08/21) Honeycombing throughout. A few hairline cracks. Wingwalls have a few hairline cracks. (08/19)



MICHIGAN DEPARTMENT OF TRANSPORTATION

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<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/30/2023 / H8T9	<b>Scour Evaluation</b> U Unknown Scour	

<b>14. Piers (SIA-60)</b>	N	N	N	(08/23) (08/21) (08/19)
<b>15. Slope Protection</b>	N	N	N	(08/23) (08/21) (08/19)
<b>16. Channel (SIA-61)</b>	6	6	6	Stream migration to south on west side. Banks well vegetated. (08/23) Stream migration to south on west side. Banks well vegetated. (08/21) Stream migration to south on west side. Banks well vegetated. (08/19)
<b>17. Scour Inspection</b>	6	6	6	No slope protection and no signs of scour. Mucky channel bottom approx 2'. Middle of channel is flat and sandy. (08/23) No slope protection and no signs of scour. Mucky channel bottom approx 2' (08/21) No slope protection and no signs of scour. Mucky channel bottom approx 2' (08/19)

APPROACH

	08/19	08/21	08/23	
<b>18. Approach Pavement</b>	7	7	7	Good condition. Unsealed crack at centerline. Some minor raveling in NE approach (08/23) Good condition. Unsealed crack at centerline. Some minor raveling in NE approach (08/21) Good condition. Unsealed crack at centerline. Some minor raveling in NE approach (08/19)
<b>19. Approach Shoulders Sidewalks</b>	7	7	7	Gravel shoulders with heavy vegetation beyond. No approach guardrail. (08/23) Gravel shoulders with heavy vegetation beyond. No approach guardrail. (08/21) Gravel shoulders with heavy vegetation beyond. No approach guardrail. (08/19)
<b>20. Approach Slopes</b>				Gentle well vegetated slopes. No erosion evident. (08/23) Gentle well vegetated slopes. No erosion evident. (08/21) Gentle well vegetated slopes. No erosion evident. (08/19)
<b>21. Utilities</b>				Phone markers NW and SW quads. Gas marker NE quad. Conduit on west fascia not attached to bridge. Overhead 25-30' west of structure. (08/23) Phone markers NW and SW quads. Gas marker NE quad. Conduit on west fascia not attached to bridge. Overhead 25-30' west of structure. (08/21) Phone markers NW and SW quads. Gas marker NE quad. Conduit on west fascia not attached to bridge. Overhead 25-30' west of structure. (08/19)
<b>22. Drainage Culverts</b>				(08/23) (08/21) (08/19)

MISCELLANEOUS

Guard Rail		Other Items	
Item	Rating	Item	Rating
36A. Bridge Railings	0	71. Water Adequacy	8
36B. Transitions	0	72. Approach Alignment	8
36C. Approach Guardrail	0	Temporary Support	0 No Temporary Supports
36D. Approach Guardrail Ends	0	High Load Hit (M)	No
		Special Insp. Equipment	2
		Underwater Insp. Method	1
False Decking (Timber) Removed to Complete Inspection		N/A - No False Decking	


**Critical Feature Inspections (SIA-92)**

	Freq	Date
92A. Fracture Critical		

MICHIGAN DEPARTMENT OF TRANSPORTATION

**STR 5831**

**BRIDGE SAFETY INSPECTION REPORT**

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<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/30/2023 / H8T9	<b>Scour Evaluation</b> U Unknown Scour	

92B. Underwater


92C. Other Special

92D. Fatigue Sensitive

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5831

STRUCTURE INVENTORY AND APPRAISAL

<b>Facility</b> FOWLERVILLE ROAD	<b>Latitude / Longitude</b> 42.6417 / -84.0724	<b>MDOT Structure ID</b> 47200035000B010	<b>Structure Condition</b> Poor Condition(4)	
<b>Feature</b> RED CEDAR RIVER	<b>Length / Width / Spans</b> 40 / 34.4 / 1	<b>Owner</b> County: Livingston(47)		
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<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/30/2023 / H8T9	<b>Scour Evaluation</b> U Unknown Scour	

**Bridge History, Type, Materials**

27 - Year Built	1961
106 - Year Reconstructed	
202 - Year Painted	
203 - Year Overlay	
43 - Main Span Bridge Type	5 05
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	0
79 - Rail Type	3
80 - Post Type	3
107 - Deck Type	9
108A - Wearing Surface	6
108B - Membrane	0
108C - Deck Protection	0

**Structure Dimensions**

34 - Skew	0
35 - Struct Flared	N
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	36.7
49 - Structure Length	40
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	28.9
52 - Width Out to Out	34.4
112 - NBIS Length	Y

**Inspection Data**

90 - Inspection Date	08/30/2023
91 - Inspection Freq	12
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	6
58A/B - Deck Surface/Bottom	6 N
59 - Superstructure Rating	4
59A - Paint Rating	N
60 - Substructure Rating	6
61 - Channel Rating	6
62 - Culvert Rating	N

**Navigation Data**

38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brgd Vert Clear	

**Route Carried By Structure(ON Record)**

5A - Record Type	1
5B - Route Signing	4
5C - Level of Service	0
5D - Route Number	04715
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000009350 04
19 - Detour Length	7
20 - Toll Facility	3
26 - Functional Class	07
28A - Lanes On	2
29 - ADT	4150
30 - Year of ADT	2019
32 - Appr Roadway Width	27.9
32A/B - Ap Pvt Type/Width	4 27.99
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	29.2
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	
110 - Truck Network	0
114 - Future ADT	4980
115 - Year Future ADT	2039
Freeway	0

**Structure Appraisal**

36A - Bridge Railing	0
36B - Rail Transition	0
36C - Approach Rail	0
36D - Rail Termination	0
67 - Structure Evaluation	4
68 - Deck Geometry	4
69 - Underclearance	N
71 - Waterway Adequacy	8
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	U

**Miscellaneous**

37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	1
148 - No. of Pin & Hangers	

**Route Under Structure (UNDER Record)**

5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	-1
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	

**Proposed Improvements**

75 - Type of Work	
76 - Length of Improvement	
94 - Bridge Cost	
95 - Roadway Cost	
96 - Total Cost	
97 - Year of Cost Estimate	


**Load Rating and Posting**

31 - Design Load	6
41 - Open, Posted, Closed	P
63 - Fed Oper Rtg Method	6
64F - Fed Oper Rtg Load	1.18
64MA - Mich Oper Rtg Method	6
64MB - Mich Oper Rtg	.76
64MC - Mich Oper Truck	17
65 - Inv Rtg Method	6
66 - Inventory Load	.7
70 - Posting	2
141 - Posted Loading	425567
193 - Overload Class	

MICHIGAN DEPARTMENT OF TRANSPORTATION

**STR 5831**

**WORK RECOMMENDATIONS**

<b>Facility</b> FOWLERVILLE ROAD	<b>Latitude / Longitude</b> 42.6417 / -84.0724	<b>MDOT Structure ID</b> 47200035000B010	<b>Structure Condition</b> Poor Condition(4)	
<b>Feature</b> RED CEDAR RIVER	<b>Length / Width / Spans</b> 40 / 34.4 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 22-23 HANDY TWP	<b>Built / Recon. / Paint / Ovly.</b> 1961 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(425567)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/30/2023 / H8T9	<b>Scour Evaluation</b> U Unknown Scour	

**WORK RECOMMENDATIONS**

**H8T9**

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	08/30/2023

**RECOMMENDATIONS & ACTION ITEMS**

Recommendation Type	Priority	Description
Railing Repair	M	Thrie beam retrofit and approach guardrail
Super Repair	H	Replace superstructure.
Substr Repair	H	Seal cracks as necessary.

## 2a. Situation Map

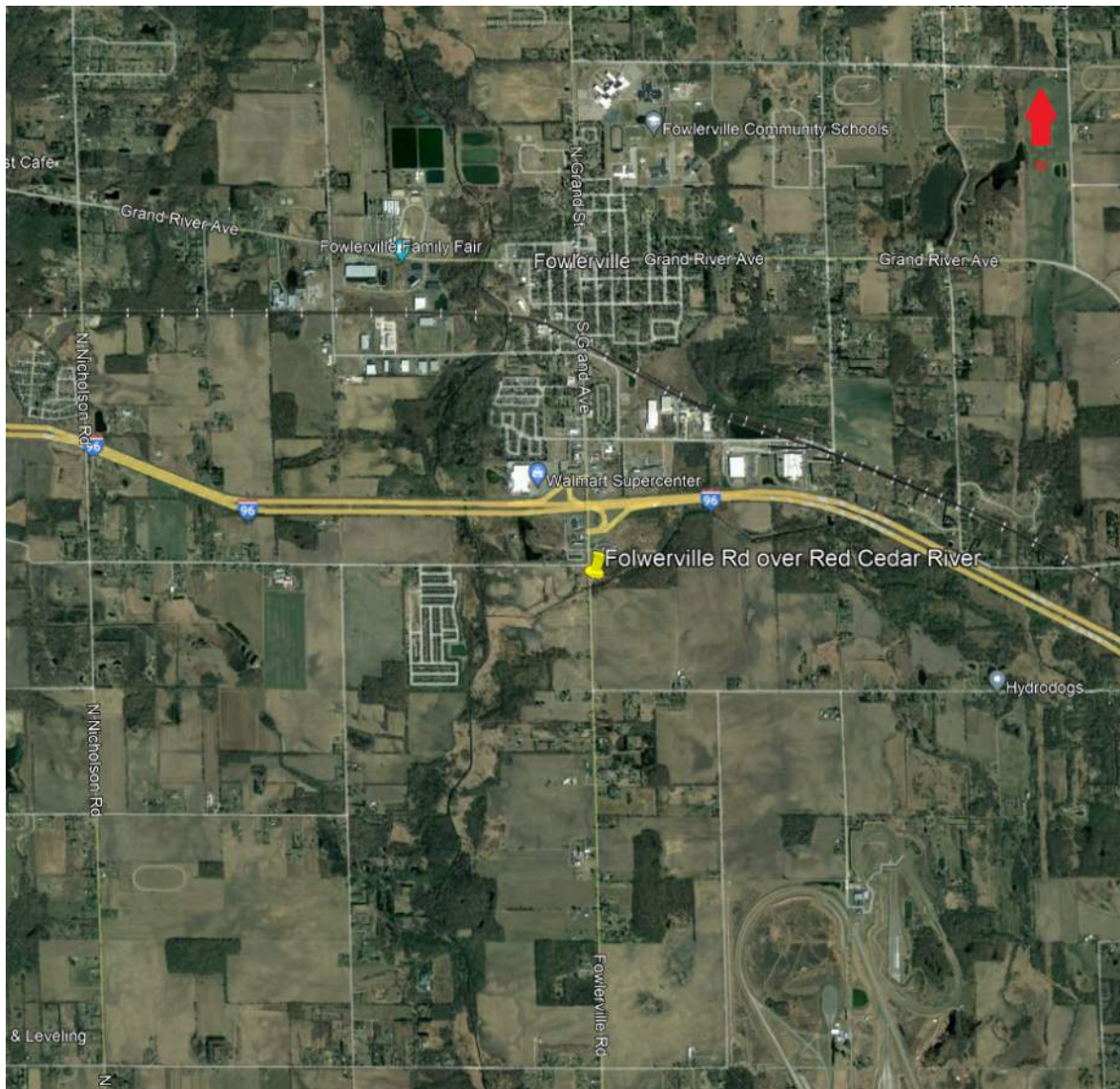
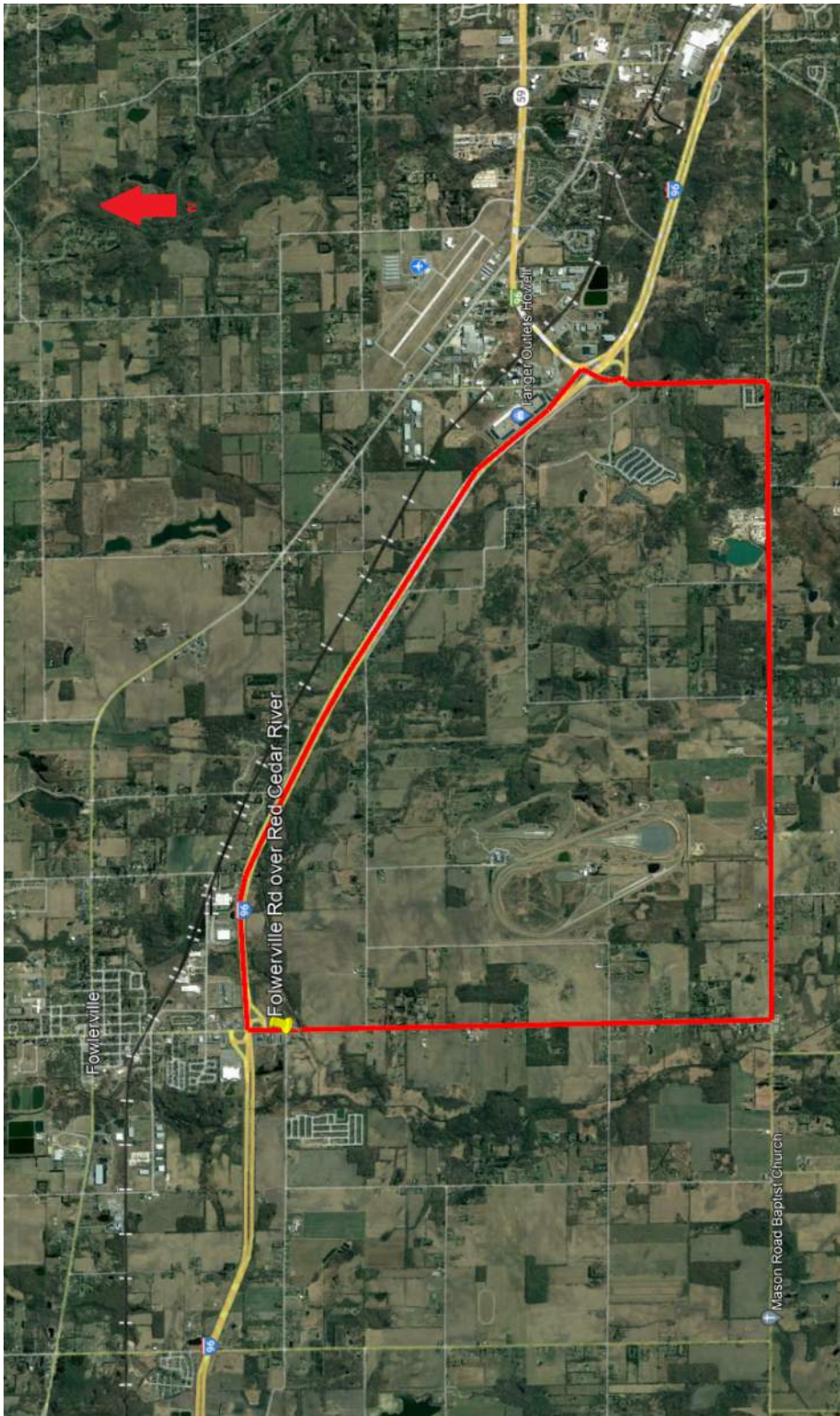


Image from Google Earth

**2b. Detour Map**



Fowlerville to Mason  
To Burkhart  
To I-96  
To Fowlerville

Detour Length: 13.2 Miles

Image from Google Earth

### 3. Photographs



North Approach Looking South



Typical Deck Surface



Typical Abutment



Beam 2W Exposed Steel





Beam 2W Cracking and Delamination



Beam 10W Cracking and Delamination



Typical Elevation

#### **4. Application Requirements for Fowlerville Road over Red Cedar River**

##### **A. Local Agency Contact Person**

Steven J. Wasylk  
Managing Director  
(517) 546-4250

##### **B. The purpose of this application is for the rehabilitation of the bridge carrying Fowlerville Road over Red Cedar River. Funding requested for a superstructure replacement and approach work. The Road Commission will provide a funding match of 20% for this project.**

##### **C. Economic Importance of the Structure**

This structure is located approximately 0.25 miles south of the I-96 interchange with Fowlerville Road and is 1.2 miles south of the downtown of the Village of Fowlerville. The area around the structure consists of residential, agricultural, and commercial properties. It is classified as a major collector and has an ADT of over 4300.

Although there are no schools in the immediate area of the bridge, Fowlerville Road is utilized by the school district for bussing purposes. The Fowlerville Community schools main campus consisting of the high school, junior high school, and one of the elementary schools is located north of the interchange of Fowlerville Road and I-96. Many school bus routes use Fowlerville Road to cross I-96 to reach this campus. If bus traffic is not able to cross the bridge it will result in long detours and it will put a financial burden on the already tight school budgets because of increased length of bus routes for all students living south of the interstate. Emergency vehicles would also be impacted by the closing as well, increasing response times.

Access to the shopping areas and the Village of Fowlerville will be severely impacted by the closure of the bridge. Fowlerville Road is the main artery for the village and provides access to all areas south of I-96. Restricting this access will cause economic hardship for the businesses of Fowlerville and also be a large inconvenience with increased fuel costs for all the motorists who use road daily to reach I-96. The detour route on equal or greater road classification is approximately 13 miles which adds considerable time and expense to motorists should it become necessary to close the bridge.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: [Livingston County Asset Management Plan](#).

The Fowlerville Road bridge is a 1-span structure that is 40' long that crosses the Red Cedar River. It is an adjacent prestressed concrete box beam bridge. The overall condition of the bridge is poor rated a 4 due to the condition of the

box beams. Beam 2W has an incipient spall on the middle  $\frac{1}{4}$  of the beam width with exposed strands over the middle  $\frac{1}{2}$  of the beam length. Beam 4W has an incipient spall that is 8' long centered at midspan with rust staining. Beam 7W has 4' of rust staining, delamination, and cracking on the west bottom corner of the beam near midspan. Beam 10W has an incipient spall in the middle  $\frac{1}{4}$  of beam width for the south 60% of the span with additional longitudinal cracks and rust staining. Level of rust staining indicates corrosion of beam strands. This condition has resulted in the recent posting of this structure.

The deck surface consists of HMA on top of the box beams and is rated a 6. There are several unsealed transverse and longitudinal cracks in the HMA surface. The substructure is in fair condition and rated a 6. There is honeycombing throughout and a few hairline cracks. The approaches are rated a 7. There is an unsealed crack at the centerline and some minor raveling in the NE approach.

The recommended repair for the bridge is a superstructure replacement. The condition of the box beams warrants replacement due to the exposed and corroded strands. The deterioration of the beams has caused the bridge to be posted for legal loads. The only way to repair the structure is to replace the beams. The substructure is in fair condition with a few vertical cracks and some honeycombing with no structural defects, so a full replacement is not warranted. The approaches should be replaced to provide a smooth transition to the bridge deck.

**D. If there is a current detour, what does it affect?**

Currently the bridge is open to traffic and there is no detour.

**E. If the structure were to be closed, what would the detour affect?**

If the structure were to be closed, the 13 mile detour would affect motorists and local businesses in the area as it is the main artery into the Village of Fowlerville. Fowlerville Road is used by school busses. Closing the structure would result in longer routes due to the main school campus being north of I-96 and increase costs for the school district, which is already on a tight budget. Emergency vehicles would have to take a longer route to reach emergencies in the area. As seconds matters in an emergency, this could become a public safety issue.

**F. The structure is not currently closed.**

**G. Maintenance of the Structure**

No work has been done on this structure.

## **5. Estimated Rehabilitation Costs**

<u>Superstructure Replacement and Approach Work</u>	
A. Approach Construction	\$ 617,000.00
B. Structure Construction	\$ 715,000.00
Total (A & B)	\$ 1,332,000.00

For a breakdown of Construction costs, see Appendix A. **The Road Commission will provide a funding match of 20% for this project.**

## **6. Priority List**

1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation - Superstructure Replacement)
2. **Fowlerville Rd over Red Cedar River (Rehabilitation - Superstructure Replacement)**
3. Milett Rd over Red Cedar River (Bridge Replacement)
4. Multiple PM
  1. Byron Rd over Stoner Creek
  2. Byron Rd over Shiawassee River
  3. Oak Grove Rd over Shiawassee River

## **7. Resolution**

The resolution is attached in Appendix B.

## **8. Previous Applications**

It is understood that all previous applications have been discarded and that this application will be used to select funding.

## **APPENDIX A**

Exhibit 4 - Cost Estimating Worksheet

2024

BRIDGE COST ESTIMATE WORKSHEET  
- CPM, REHAB, REPLACE -

REV. 02/8/2024

OWNER: Livingston County	FISCAL YEAR: 2027	Out to Out	Curb to Curb	DATE: 3/8/2024
REGION: University		LENGTH 40.0	WIDTH 34.4	ENGINEER: KSO
TSC: Brighton	PR: #N/A MP: #N/A		WIDTH 28.9	STRUCTURE ID: 5831
				BRIDGE ID: N/A
LOCATION: FOWLerville ROAD over RED CEDAR RIVER		DECK AREA: 1,376	SFT	STR. TYPE: Prestressed Concrete
PRIMARY WORK ACTIVITY Superstructure Replacement		CLEAR ROADWAY: 1,156	SFT	Box Beam or Girders - Mu
OTHER WORK:				

WORK ACTIVITY	MDOT Bridge Design Guides	QUANTITY	UNIT	UNIT COST	TOTAL
<b>NEW BRIDGE</b> (increase deck area based on design standards and hydraulic requirements)					
Single or Multiple Spans, Grade Separation	(add demo, approach, MOT)		SFT	\$435.00/SFT	
Single Span, Over Water	Length < 100ft (add demo, approach, MOT)		SFT	\$525.00/SFT	
Multiple Spans, Over Water	Length > 100ft (add demo, approach, MOT)		SFT	\$470.00/SFT	
Precast Culvert	Length < 40ft (add demo, approach, MOT)		SFT	\$565.00/SFT	
<b>NEW SUPERSTRUCTURE</b>					
New Superstructure, Grade Separation	(incl. remove exist deck/super; add MOT & approach)		SFT	\$310.00/SFT	
New Superstructure, Over Water	(incl. remove exist deck/super; add MOT & approach)	1,536.7	SFT	\$315.00/SFT	\$484,050.00
<b>WIDENING</b>					
Structure Widening, ft	(incl. deck/super/sub widening, add approach transition)		SFT	\$630.00/SFT	
<b>NEW DECK</b>					
New Bridge Deck & Barrier	(incl. remove exist deck/railing, add approach, MOT)		SFT	\$150.00/SFT	
<b>DEMOLITION</b>					
Entire Structure, Grade Separation			SFT	\$75.00/SFT	
Entire Structure, Over Water			SFT	\$95.00/SFT	
<b>DECK REPAIR / TREATMENTS</b>					
Bridge Railing Replacement	(incl. removal and replacement)		FT	\$750.00/FT	
Concrete Brush Block / Curb Patch	(incl. hand chipping and formwork)		FT	\$29.00/FT	
Concrete Barrier Patch	(incl. hand chipping and formwork)		SFT	\$85.00/SFT	
Concrete Deck Patch	(incl. hand chipping)		SFT	\$68.00/SFT	
Deep Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
Epoxy Overlay	(incl. warranty)		SYD	\$48.00/SYD	
Expansion Joint Gland Replacement	(remove and replace elastomeric gland)		FT	\$125.00/FT	
Expansion Joint Replacement	(incl. removal)		FT	\$860.00/FT	
Full Depth Patch			SFT	\$140.00/SFT	
Healer / Sealer	(penetrates cracks in bridge deck)		SYD	\$30.00/SYD	
HMA Overlay with WP membrane			SYD	\$60.00/SYD	
Overlay Removal	(Epoxy: \$22/syd   Latex: \$26/syd   HMA: \$7/syd)		SYD	\$22.00/SYD	
Reseal Bridge Joints			FT	\$28.00/FT	
Shallow Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
<b>SUPERSTRUCTURE REPAIR</b>					
Bearing Realignment / Replacement	(incl. temporary supports)		EA	\$6,450.00/EA	
Heat Straightening	(incl. clean and coat)		EA	\$57,000.00/EA	
Pack Rust Repair	(greater than 3/8" separation)		FT	\$1,150.00/FT	
Paint - Complete	(incl. clean & coat)		SFT	\$30.00/SFT	
Paint - Partial / Spot / Zone	(incl. clean & coat - \$20k minimum)		SFT	\$60.00/SFT	
PCI Beam End Blockout	(incl. temporary supports)		EA	\$7,200.00/EA	
Pin & Hanger Replacement	(incl. temporary supports)		EA	\$17,000.00/EA	
Structural Steel Repair	(based on 6ft repair length)		EA	\$4,000.00/EA	
Structural Steel Repair - Stiffener	(includes each side of beam)		EA	\$1,500.00/EA	
<b>SUBSTRUCTURE REPAIR</b>					
Substructure Patching	(measured x 2) replace if repair area > 30%		CFT	\$360.00/CFT	
Substructure Replacement	(incl. temporary supports, excavation)		CFT	\$375.00/CFT	
Substructure Horizontal Surface Sealer			SYD	\$75.00/SYD	
Temporary Supports	(add Structural Steel Repair - Stiffener for ea steel beam)		EA	\$4,000.00/EA	
<b>MISCELLANEOUS</b>					
Articulating Concrete Block System (ACB)			SYD	\$320.00/SYD	
Concrete Surface Coating			SYD	\$47.00/SYD	
Culvert Cleanout			FT	\$125.00/FT	
Epoxy Crack Injection	(structural crack repair)		FT	\$70.00/FT	
Metal Mesh Panels	(48" width, max 6'-6" length)		SFT	\$28.00/SFT	
Pressure Relief Joint	(use when approach concrete roadway exceeds 1,000ft)		FT	\$110.00/FT	
Riprap	(assume 10ft distance around perimeter of substructure)		SYD	\$275.00/SYD	
Silane Treatment	(penetrating sealer for concrete surfaces)		SFT	\$7.00/SFT	
Slope Protection Repairs			SYD	\$150.00/SYD	
Other					

**STRUCTURE CONSTRUCTION BUDGET** \$484,050

<b>ROAD WORK</b>					
Approach Pavement, 12" RC	(incl. removal; add curb, gutter, guardrail) 20' ea. end	160.0	SYD	\$230.00/SYD	\$36,800.00
Approach Curb & Gutter	(incl. removal) 20' ea. quadrant	80.0	FT	\$57.00/FT	\$4,560.00
Guardrail Anchorage to Bridge	(each quadrant)	4.0	EA	\$2,540.00/EA	\$10,160.00
Guardrail	(incl. removal) < 200ft beyond reference line		FT	\$41.00/FT	
Guardrail Terminal	(each quadrant)	4.0	EA	\$3,900.00/EA	\$15,600.00
Roadway Approach Work	(beyond approach pavement)	1.0	LSUM	\$300,000.00/LSUM	\$300,000.00
Utilities			LSUM		
<b>TRAFFIC CONTROL</b> Unit Cost to be determined by Region or TSC Traffic & Safety					
Part Width Construction			LSUM		
Crossovers			EA	/EA	
Temporary Traffic Signals			set	/set	
RR Flagging			LSUM	LSUM	
Detour		1.0	LSUM	\$50,000.00/LSUM	\$50,000.00

**RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET** \$417,120

<b>CONTINGENCY</b> (10% - 20%) (use higher contingency for small projects)	20	%	\$901,000.00	\$180,000
<b>MOBILIZATION</b> (estimate at 10%)	10	%	\$1,081,000.00	\$108,000
<b>INFLATION</b> (assume 4% per year, beginning in 2025)	12	%	\$1,189,000.00	\$143,000

(Does not include PE or CE)

**TOTAL CONSTRUCTION BUDGET** \$1,332,000


## **APPENDIX B**



MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5875

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/19/2023 / 43DZ	U Unknown Scour	

NBI INSPECTION

43DZ

<b>Inspector Name</b>	<b>Agency / Company Name</b>	<b>Insp. Freq.</b>	<b>Insp. Date</b>
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	06/19/2023

GENERAL NOTES

inspection frequency reduced to 12 months based on channel alignment attacking east approach in accordance with federal guidelines.

<b>Weight limit signs in place on both ends of bridge</b>	YES
<b>Weight limit shown on signs at bridge</b>	233157
<b>Required advance warning weight limit signs in place</b>	YES
<b>Weight limit shown on advance warning signs</b>	233157

DECK


06/20 06/22 06/23

<b>1. Surface (SIA-58A)</b>	7	7	6	Concrete surface with a few transverse cracks and some abrasion. Partially covered with gravel. Transverse cracks are open. 1 sqft spall near middle. (06/23) Concrete surface with a few transverse cracks and some abrasion. Partially covered with gravel. (06/22) Concrete surface with a few transverse cracks and some abrasion. (06/20)
<b>2. Expansion Joints</b>				(06/23) (06/22) (06/20)
<b>3. Other Joints</b>				(06/23) (06/22) (06/20)
<b>4. Railings</b>	2	2	2	All posts on south railing except for end posts have holes at base. All other posts on each railing have corrosion at the base. Vehicular damage in SW quad with railing leaning outward. (06/23) All posts on south railing except for end posts have holes at base. All other posts on each railing have corrosion at the base. Vehicular damage in SW quad with railing leaning outward. (06/22) All posts on south railing except for end posts have holes at base. All other posts on each railing have corrosion at the base. Vehicular damage in SW quad with railing leaning outward. (06/20)
<b>5. Sidewalks or Curbs</b>	5	5	5	A few small cracks in brush block. Crack through brush block at 2nd post from west in south rail from vehicle impact. Minor spalling on top of north and south brush blocks. Broken brush block at south side west end behind triton barrier. north brush block as isolated small spalling, less than 1 sqft. (06/23) A few small cracks in brush block. Crack through brush block at 2nd post from west in south rail from vehicle impact. Minor spalling on top of north and south brush blocks. Broken brush block at south side west end behind triton barrier. (06/22) A few small cracks in brush block. Crack through brush block at 2nd post from west in south rail from vehicle impact. Minor spalling on top of north and south brush blocks. Broken brush block at south side west end behind triton barrier. (06/20)
<b>6. Deck Bottom Surface (SIA-58B)</b>	6	6	6	A few trans cracks and a couple of spalls at top flanges (no steel visible). Approx 40% of underside covered in felt paper from construction. (06/23) A few trans cracks and a couple of spalls at top flanges (no steel visible). Approx 40% of underside covered in felt paper from construction. (06/22) A few trans cracks and a couple of spalls at top flanges (no steel visible). Approx 40% of underside covered in felt paper from construction. (06/20)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5875

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/19/2023 / 43DZ	U Unknown Scour	

<b>7. Deck (SIA-58)</b>	7	7	6	Concrete surface with a few transverse cracks and some abrasion. Partially covered with gravel. Transverse cracks are open. 1 sqft spall near middle. A few trans cracks and a couple of spalls at top flanges (no steel visible). Approx 40% of underside covered in felt paper from construction. (06/23) Overall good condition with some abrasion and a few cracks on surface and underside. (06/22) Overall good condition with some abrasion and a few cracks on surface and underside. (06/20)
<b>8. Drainage</b>				(06/23) (06/22) No problems noted. Bridge is highpoint of road. (06/20)

**SUPERSTRUCTURE**

	06/20	06/22	06/23	
<b>9. Stringer (SIA-59)</b>	4	4	4	Pack rust on web of south fascia beam with section loss. Angles at abutment connecting the beam and abutment are missing in several locations. No damage or distress noted. Pack rust along entire bottom flange of north and south fascia channels. All interior beams appear to have full section with surface rust only (06/23) Pack rust on web of south fascia beam with section loss. Angles at abutment connecting the beam and abutment are missing in several locations. No damage or distress noted. Pack rust along entire bottom flange of north and south fascia channels. All interior beams appear to have full section with surface rust only (06/22) Pack rust on web of south fascia beam with section loss. Angles at abutment connecting the beam and abutment are missing in several locations. No damage or distress noted. Pack rust along entire bottom flange of north and south fascia channels. All interior beams appear to have full section with surface rust only (06/20)
<b>10. Paint (SIA-59A)</b>	2	2	2	Paint has failed. (06/23) Paint has failed. (06/22) Paint has failed. (06/20)
<b>11. Section Loss</b>	0	0	0	Heavy section loss on fascia channels. Holes in web of south channel. (06/23) Heavy section loss on fascia channels. Holes in web of south channel. (06/22) Heavy section loss on fascia channels. Holes in web of south channel. (06/20)
<b>12. Bearings</b>	7	7	7	No problems noted. Steel directly on timber (06/23) No problems noted. Steel directly on timber (06/22) No problems noted. Steel directly on timber (06/20)

**SUBSTRUCTURE**

	06/20	06/22	06/23	
<b>13. Abutments (SIA-60)</b>	5	5	5	Some hollowness in piles. SW pile top crushed approximately 1", no distress in header. Some splits in timber lagging. (06/23) Some hollowness in piles. SW pile top crushed approximately 1", no distress in header. Some splits in timber lagging. (06/22) Wingwalls damaged with many planks no longer attached to the piles (deterioration). Abutment timbers and piles in fair condition. Some of the boards between piles are bending. Areas of checks and splits at bottom of columns. Boards are beginning to deteriorate behind the columns. Bottom board is not visible. Abutment header ends are hollow under fascia beam bearings (06/20)
<b>14. Piers (SIA-60)</b>	N	N	N	(06/23) (06/22) (06/20)
<b>15. Slope Protection</b>	N	N	N	(06/23) (06/22) No slope protection. (06/20)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5875

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/19/2023 / 43DZ	U Unknown Scour	

<b>16. Channel (SIA-61)</b>	3	3	3	Very poor alignment. Flow is directed to west abutment. Sediment build up at east abutment. Minor debris in channel. Banks heavily vegetated. Some debris in channel but doesn't appear to be effecting flow. (06/23) Very poor alignment. Flow is directed to west abutment. Sediment build up at east abutment. Minor debris in channel. Banks heavily vegetated. Some debris in channel but doesn't appear to be effecting flow. (06/22) Very poor alignment. Flow is directed to west abutment. Sediment build up at east abutment. Minor debris in channel. Banks heavily vegetated. Some debris in channel but doesn't appear to be effecting flow. (06/20)
<b>17. Scour Inspection</b>	5	5	5	No evidence of scour. SE quadrant approach bank is very steep due to river attacking that corner (06/23) No evidence of scour. SE quadrant approach bank is very steep due to river attacking that corner (06/22) No evidence of scour. SE quadrant approach bank is very steep due to river attacking that corner (06/20)

**APPROACH**

	06/20	06/22	06/23	
<b>18. Approach Pavement</b>	6	6	5	Gravel with some general roughness. several small potholes in both approaches (06/23) Gravel with some general roughness. Small potholes in both approaches (06/22) Gravel with some general roughness. (06/20)
<b>19. Approach Shoulders Sidewalks</b>	7	7	6	Gravel shoulders. Vegetated beyond. No issues noted. Some unevenness and build-up at edge of structures. (06/23) Gravel shoulders. Vegetated beyond. No issues noted (06/22) Gravel shoulders. Vegetated beyond (06/20)
<b>20. Approach Slopes</b>				Erosion in NW quad at wingwall. Slopes are steep but well vegetated. (06/23) Erosion in NW quad at wingwall. Slopes are steep but well vegetated. (06/22) Erosion in NW quad at wingwall. Slopes are steep but well vegetated. (06/20)
<b>21. Utilities</b>				OH 40' south, galv steel pipe attached to south fascia beam. (06/23) OH 40' south, galv steel pipe attached to south fascia beam. (06/22) OH 40' south, galv steel pipe attached to south fascia beam. (06/20)
<b>22. Drainage Culverts</b>				(06/23) (06/22) None. (06/20)

**MISCELLANEOUS**

<b>Guard Rail</b>		<b>Other Items</b>	
<u>Item</u>	<u>Rating</u>	<u>Item</u>	<u>Rating</u>
36A. Bridge Railings	0	71. Water Adequacy	6
36B. Transitions	0	72. Approach Alignment	8
36C. Approach Guardrail	0	Temporary Support	0 No Temporary Supports
36D. Approach Guardrail Ends	0	High Load Hit (M)	No
		Special Insp. Equipment	2
		Underwater Insp. Method	1
False Decking (Timber) Removed to Complete Inspection		N/A - No False Decking	


**Critical Feature Inspections (SIA-92)**

	<u>Freq</u>	<u>Date</u>
92A. Fracture Critical		
92B. Underwater		
92C. Other Special		

MICHIGAN DEPARTMENT OF TRANSPORTATION

**STR 5875**

**BRIDGE SAFETY INSPECTION REPORT**


Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)	
Feature	Length / Width / Spans	Owner		
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/19/2023 / 43DZ	U Unknown Scour	

**92D. Fatigue Sensitive**

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5875

STRUCTURE INVENTORY AND APPRAISAL

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/19/2023 / 43DZ	U Unknown Scour	

**Bridge History, Type, Materials**

27 - Year Built	1933
106 - Year Reconstructed	
202 - Year Painted	
203 - Year Overlay	
43 - Main Span Bridge Type	3 02
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	0
79 - Rail Type	
80 - Post Type	
107 - Deck Type	1
108A - Wearing Surface	1
108B - Membrane	0
108C - Deck Protection	0

**Structure Dimensions**

34 - Skew	0
35 - Struct Flared	N
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	22
49 - Structure Length	24
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	21
52 - Width Out to Out	22
112 - NBIS Length	Y

**Inspection Data**

90 - Inspection Date	06/19/2023
91 - Inspection Freq	12
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	6
58A/B - Deck Surface/Bottom	6 6
59 - Superstructure Rating	4
59A - Paint Rating	2
60 - Substructure Rating	5
61 - Channel Rating	3
62 - Culvert Rating	N

**Navigation Data**

38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brgd Vert Clear	

**Route Carried By Structure(ON Record)**

5A - Record Type	1
5B - Route Signing	4
5C - Level of Service	8
5D - Route Number	00000
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000009349 07
19 - Detour Length	6
20 - Toll Facility	3
26 - Functional Class	09
28A - Lanes On	2
29 - ADT	142
30 - Year of ADT	2013
32 - Appr Roadway Width	20
32A/B - Ap Pvt Type/Width	2 20.01
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	20.7
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	-1
110 - Truck Network	0
114 - Future ADT	200
115 - Year Future ADT	2021
Freeway	0

**Structure Appraisal**

36A - Bridge Railing	0
36B - Rail Transition	0
36C - Approach Rail	0
36D - Rail Termination	0
67 - Structure Evaluation	4
68 - Deck Geometry	4
69 - Underclearance	N
71 - Waterway Adequacy	6
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	U

**Miscellaneous**

37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	-1

**Route Under Structure (UNDER Record)**

5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	-1
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	

**Proposed Improvements**

75 - Type of Work	
76 - Length of Improvement	
94 - Bridge Cost	
95 - Roadway Cost	
96 - Total Cost	
97 - Year of Cost Estimate	


**Load Rating and Posting**

31 - Design Load	6
41 - Open, Posted, Closed	P
63 - Fed Oper Rtg Method	6
64F - Fed Oper Rtg Load	.95
64MA - Mich Oper Rtg Method	6
64MB - Mich Oper Rtg	.7
64MC - Mich Oper Truck	18
65 - Inv Rtg Method	6
66 - Inventory Load	.57
70 - Posting	2
141 - Posted Loading	233157
193 - Overload Class	

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5875

WORK RECOMMENDATIONS

<b>Facility</b> MILLET ROAD	<b>Latitude / Longitude</b> 42.6214 / -84.0172	<b>MDOT Structure ID</b> 47310H00001B010	<b>Structure Condition</b> Poor Condition(4)	
<b>Feature</b> RED CEDAR RIVER	<b>Length / Width / Spans</b> 24 / 22 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 30 HOWELL TWP	<b>Built / Recon. / Paint / Ovly.</b> 1933 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(233157)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 3 Steel / 02 Multi Str Non Comp	<b>Last NBI Inspection</b> 06/19/2023 / 43DZ	<b>Scour Evaluation</b> U Unknown Scour	

WORK RECOMMENDATIONS

43DZ

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	06/19/2023

RECOMMENDATIONS & ACTION ITEMS

Recommendation Type	Priority	Description
Scour Repair	L	Armor SE quadrant bank
Channel Repair	L	Armor SE quadrant bank
Bridge Repl.	L	Replace bridge

# 1a. Situation Map

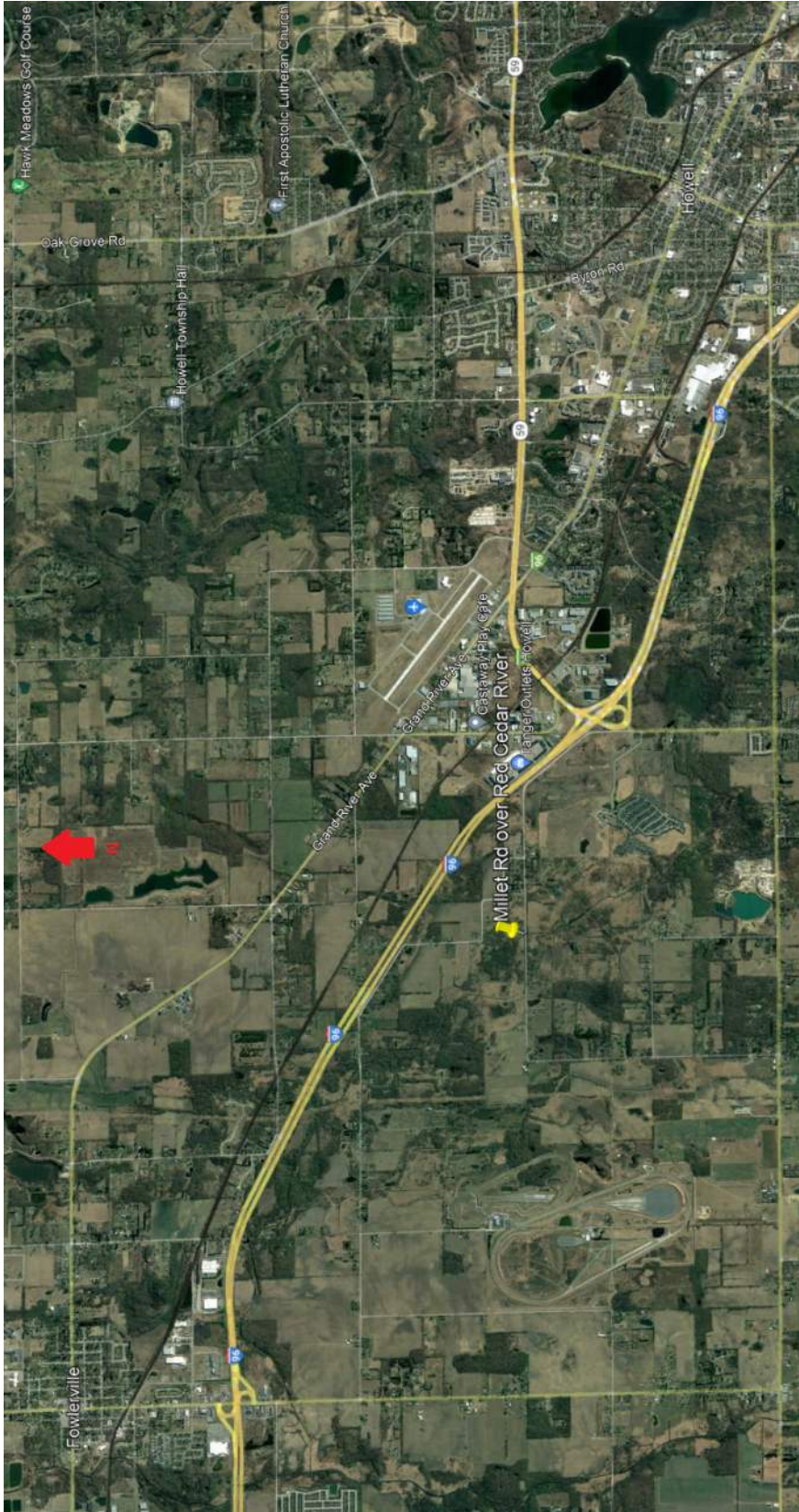
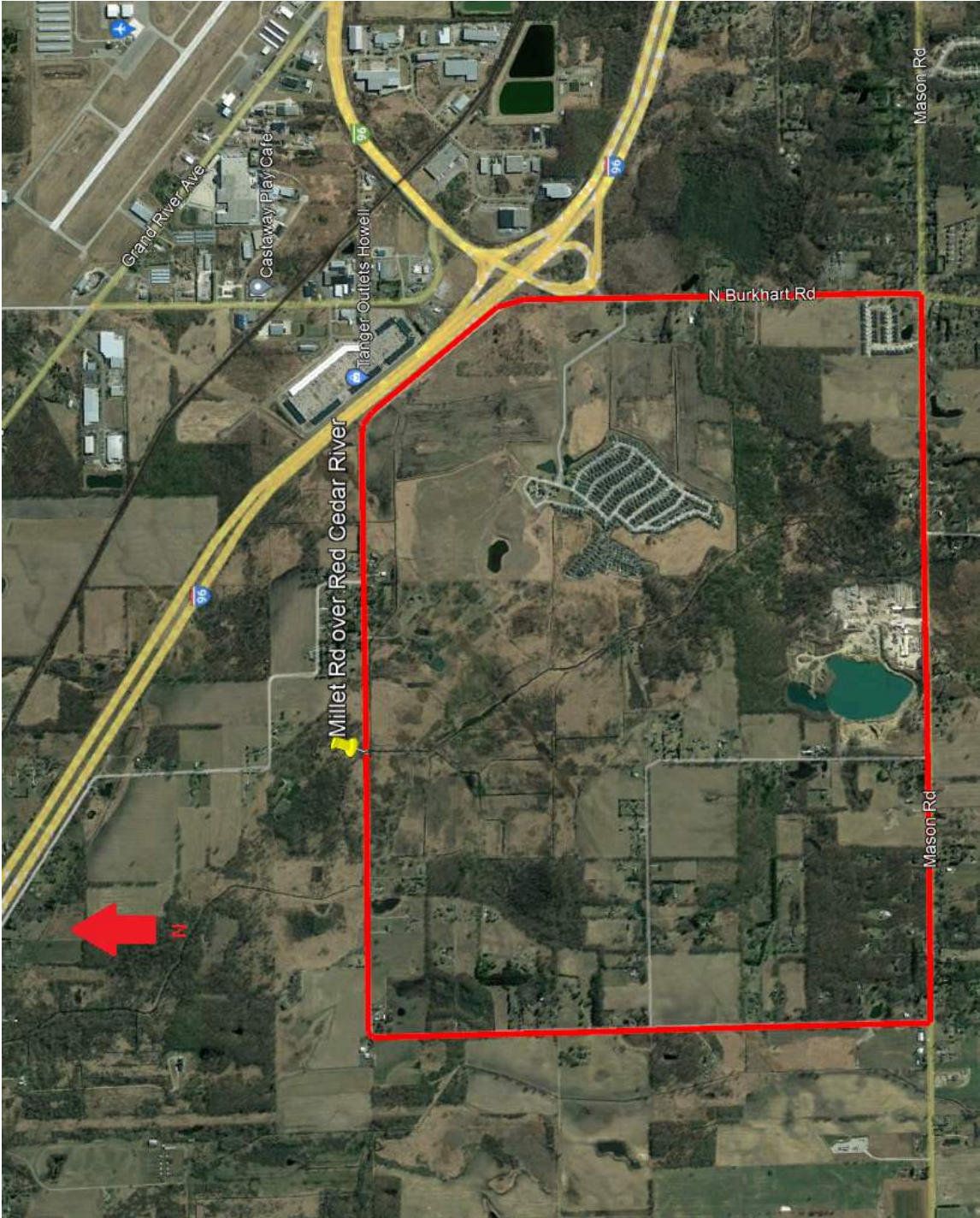


Image from Google Earth

**2b. Detour Map**



Millet Rd to Burkhart Rd  
to Mason Rd  
to Truhn Rd  
to Millet Rd

Detour Length: 6.7 Miles

Image from Google Earth



### 3. Photographs



Approach Looking West (note temporary barrier to keep load off fascia beam)



South Elevation and Poor Channel Alignment



Typical Abutment



Typical Interior Beams and Deck Underside



South Fascia Beam Deterioration



South Fascia Beam Deterioration

#### **4. Application Requirements for Milett Rd over Red Cedar River**

##### **A. Local Agency Contact Person**

Steven J. Wasylk  
Managing Director  
(517) 546-4250

##### **B. The purpose of this application is for the replacement of the bridge carrying Milett Rd over Red Cedar River. The Road Commission will provide a funding match of 10% for this project.**

##### **C. Economic Importance of the Structure**

This structure is located approximately 1.4 miles west of M-59 and I-96 interchange in Howell. Milett is classified as a local road according to the National Function Classification system. It is an east/west roadway that serves residential and farming areas between Howell and Fowlerville.

Although there are no schools in the immediate area of the bridge, Milett Road is utilized by the school district for bussing purposes. If bus traffic is not able to cross the bridge it will put a financial burden on the already tight school budgets because of increased length of bus routes. Emergency vehicles would also be impacted by the closing as well, increasing response times.

The existing bridge is a one span steel beam structure supported structure on timber abutments. The existing structure is in poor condition and rated a 4 overall. It is posted for load and has temporary barrier in place to keep traffic off the south fascia beam. The stringers are in poor condition and rated a 4. The south fascia beam has several holes in the web and the flange and pack rust and section loss throughout. Pack rust extends the length of the entire north fascia beam as well. All interior beams have little to no section loss and only are exhibiting surface rust. Several angles connecting the beams to the abutment are missing. The abutments are in fair condition and rated a 5. The wingwalls are damaged and many of the earth retaining planks no longer attached to the piles. The abutment timbers and piles are in fair condition, with areas of checks and splits. Several of the earth retaining board behind the piles are bending and beginning to deteriorate. The abutment header ends are hollow under the fascia beam bearings. The channel is in serious condition and rated a 3. It is poorly aligned with the bridge and in the southeast quadrant the bank is eroding away and flow is behind the wingwall.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: [Livingston County Asset Management Plan](#)

The recommended course of action for the bridge is to do a full replacement. The stringers have reached a point where they cannot carry the required loads

and cannot be cost effectively repaired due to their condition. A superstructure replacement is not recommended because of the condition of substructure, the poor alignment of the channel, and unknown capacity of the piles.

**D. If there is a current detour, what does it affect?**

Currently the bridge is open to traffic and there is no detour. However, temporary barriers have been placed to keep traffic from applying load to the fascia beams, resulting in a one lane bridge.

**E. If the structure were to be closed, what would the detour affect?**

If the structure were to be closed, the detour would affect the residents in the area. The school system, with its already tight budget, will have cost increases because of the need to reroute its buses. Emergency vehicles would have to take a longer route to reach emergencies in the area. As seconds matter in an emergency, this could become a public safety issue.

**F. The structure is not currently closed.**

**G. Maintenance of the Structure**

No maintenance has been done on this structure.

**5. Estimated Rehabilitation Costs**

<u>Bridge Replacement</u>	
A. Road/Traffic	\$ 352,000.00
B. Structure Construction	\$ 1,188,000.00
Total (A & B)	\$ 1,540,000.00

For a breakdown of Construction costs, see Appendix A. **The Road Commission will provide a funding match of 10% for this project.**

**6. Priority List**

1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation - Superstructure Replacement)
2. Fowlerville Rd over Red Cedar River (Rehabilitation - Superstructure Replacement)
3. **Milett Rd over Red Cedar River (Bridge Replacement)**
4. Multiple PM
  1. Byron Rd over Stoner Creek
  2. Byron Rd over Shiawassee River
  3. Oak Grove Rd over Shiawassee River

**7. Resolution**

The resolution is attached in Appendix B.

**8. Previous Applications**

It is understood that all previous applications have been discarded and that this application will be used to select funding.

## **APPENDIX A**

Exhibit 4 - Cost Estimating Worksheet

2024

BRIDGE COST ESTIMATE WORKSHEET  
- CPM, REHAB, REPLACE -

REV. 02/8/2024

OWNER: Livingston County	FISCAL YEAR: 2027	Out to Out	Curb to Curb	DATE: 3/8/2024
REGION: University		LENGTH	WIDTH	ENGINEER: KSO
TSC: Brighton	PR: 934907 MP: 0.768	24.0	22.0	21.0
	LOCATION: MILLET ROAD over RED CEDAR RIVER			STRUCTURE ID: 5875
PRIMARY WORK ACTIVITY: Bridge Replacement		DECK AREA: 528	SFT	BRIDGE ID: N/A
OTHER WORK:		CLEAR ROADWAY: 504	SFT	STR. TYPE: Steel Multi-Stringer, W or I-Bear

WORK ACTIVITY	MDOT Bridge Design Guides	QUANTITY	UNIT	UNIT COST	TOTAL
<b>NEW BRIDGE</b> (increase deck area based on design standards and hydraulic requirements)					
Single or Multiple Spans, Grade Separation	(add demo, approach, MOT)		SFT	\$435.00/SFT	
Single Span, Over Water	Length < 100ft (add demo, approach, MOT)	1,376.7	SFT	\$525.00/SFT	\$722,750.00
Multiple Spans, Over Water	Length > 100ft (add demo, approach, MOT)		SFT	\$470.00/SFT	
Precast Culvert	Length < 40ft (add demo, approach, MOT)		SFT	\$565.00/SFT	

<b>NEW SUPERSTRUCTURE</b>					
New Superstructure, Grade Separation	(incl. remove exist deck/super; add MOT & approach)		SFT	\$310.00/SFT	
New Superstructure, Over Water	(incl. remove exist deck/super; add MOT & approach)		SFT	\$315.00/SFT	

<b>WIDENING</b>					
Structure Widening,	ft	(incl. deck/super/sub widening, add approach transition)		SFT	\$630.00/SFT

<b>NEW DECK</b>					
New Bridge Deck & Barrier	(incl. remove exist deck/railing, add approach, MOT)		SFT	\$150.00/SFT	

<b>DEMOLITION</b>					
Entire Structure, Grade Separation			SFT	\$75.00/SFT	
Entire Structure, Over Water		528.0	SFT	\$95.00/SFT	\$50,160.00

<b>DECK REPAIR / TREATMENTS</b>					
Bridge Railing Replacement	(incl. removal and replacement)		FT	\$750.00/FT	
Concrete Brush Block / Curb Patch	(incl. hand chipping and formwork)		FT	\$29.00/FT	
Concrete Barrier Patch	(incl. hand chipping and formwork)		SFT	\$85.00/SFT	
Concrete Deck Patch	(incl. hand chipping)		SFT	\$68.00/SFT	
Deep Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
Epoxy Overlay	(incl. warranty)		SYD	\$48.00/SYD	
Expansion Joint Gland Replacement	(remove and replace elastomeric gland)		FT	\$125.00/FT	
Expansion Joint Replacement	(incl. removal)		FT	\$860.00/FT	
Full Depth Patch			SFT	\$140.00/SFT	
Healer / Sealer	(penetrates cracks in bridge deck)		SYD	\$30.00/SYD	
HMA Overlay with WP membrane			SYD	\$60.00/SYD	
Overlay Removal	(Epoxy: \$22/syd   Latex: \$26/syd   HMA: \$7/syd)		SYD	\$22.00/SYD	
Reseal Bridge Joints			FT	\$28.00/FT	
Shallow Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	

<b>SUPERSTRUCTURE REPAIR</b>					
Bearing Realignment / Replacement	(incl. temporary supports)		EA	\$6,450.00/EA	
Heat Straightening	(incl. clean and coat)		EA	\$57,000.00/EA	
Pack Rust Repair	(greater than 3/8" separation)		FT	\$1,150.00/FT	
Paint - Complete	(incl. clean & coat)		SFT	\$30.00/SFT	
Paint - Partial / Spot / Zone	(incl. clean & coat - \$20k minimum)		SFT	\$60.00/SFT	
PCI Beam End Blockout	(incl. temporary supports)		EA	\$7,200.00/EA	
Pin & Hanger Replacement	(incl. temporary supports)		EA	\$17,000.00/EA	
Structural Steel Repair	(based on 6ft repair length)		EA	\$4,000.00/EA	
Structural Steel Repair - Stiffener	(includes each side of beam)		EA	\$1,500.00/EA	

<b>SUBSTRUCTURE REPAIR</b>					
Substructure Patching	(measured x 2) replace if repair area > 30%		CFT	\$360.00/CFT	
Substructure Replacement	(incl. temporary supports, excavation)		CFT	\$375.00/CFT	
Substructure Horizontal Surface Sealer			SYD	\$75.00/SYD	
Temporary Supports	(add Structural Steel Repair - Stiffener for ea steel beam)		EA	\$4,000.00/EA	

<b>MISCELLANEOUS</b>					
Articulating Concrete Block System (ACB)			SYD	\$320.00/SYD	
Concrete Surface Coating			SYD	\$47.00/SYD	
Culvert Cleanout			FT	\$125.00/FT	
Epoxy Crack Injection	(structural crack repair)		FT	\$70.00/FT	
Metal Mesh Panels	(48" width, max 6'-6" length)		SFT	\$28.00/SFT	
Pressure Relief Joint	(use when approach concrete roadway exceeds 1,000ft)		FT	\$110.00/FT	
Riprap	(assume 10ft distance around perimeter of substructure)	110.0	SYD	\$275.00/SYD	\$30,250.00
Silane Treatment	(penetrating sealer for concrete surfaces)		SFT	\$7.00/SFT	
Slope Protection Repairs			SYD	\$150.00/SYD	
Other					

**STRUCTURE CONSTRUCTION BUDGET** \$803,160

<b>ROAD WORK</b>					
Approach Pavement, 12" RC	(incl. removal; add curb, gutter, guardrail) 40' ea. end	284.4	SYD	\$230.00/SYD	\$65,422.22
Approach Curb & Gutter	(incl. removal) 40' ea. quadrant	160.0	FT	\$57.00/FT	\$9,120.00
Guardrail Anchorage to Bridge	(each quadrant)	4.0	EA	\$2,540.00/EA	\$10,160.00
Guardrail	(incl. removal) < 200ft beyond reference line	200.0	FT	\$41.00/FT	\$8,200.00
Guardrail Terminal	(each quadrant)	4.0	EA	\$3,900.00/EA	\$15,600.00
Roadway Approach Work	(beyond approach pavement)	1.0	LSUM	\$100,000.00/LSUM	\$100,000.00
Utilities			LSUM	LSUM	

<b>TRAFFIC CONTROL</b> Unit Cost to be determined by Region or TSC Traffic & Safety					
Part Width Construction			LSUM	LSUM	
Crossovers			EA	/EA	
Temporary Traffic Signals			set	/set	
RR Flagging			LSUM	LSUM	
Detour		1.0	LSUM	\$30,000.00/LSUM	\$30,000.00

**RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET** \$238,502

<b>CONTINGENCY</b>	(10% - 20%) (use higher contingency for small projects)	20	%	\$1,042,000.00	\$208,000
<b>MOBILIZATION</b>	(estimate at 10%)	10	%	\$1,250,000.00	\$125,000
<b>INFLATION</b>	(assume 4% per year, beginning in 2025)	12	%	\$1,375,000.00	\$165,000

(Does not include PE or CE)

**TOTAL CONSTRUCTION BUDGET** \$1,540,000



## **APPENDIX B**

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5854

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b> BYRON ROAD	<b>Latitude / Longitude</b> 42.732 / -83.9686	<b>MDOT Structure ID</b> 47302H00023B020	<b>Structure Condition</b> Fair Condition(5)	
<b>Feature</b> STONER CREEK	<b>Length / Width / Spans</b> 35 / 29.2 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 15 COHOCTAH TWP	<b>Built / Recon. / Paint / Ovly.</b> 1947 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(425468)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 3 Steel / 02 Multi Str Non Comp	<b>Last NBI Inspection</b> 08/25/2022 / 937B	<b>Scour Evaluation</b> 5 Stable w/in footing	

NBI INSPECTION

937B

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	08/25/2022

GENERAL NOTES

Posted 42/54/68

Weight limit signs in place on both ends of bridge	YES
Weight limit shown on signs at bridge	425468
Required advance warning weight limit signs in place	YES
Weight limit shown on advance warning signs	425468

Frequency Justification Comments (required when Poor Condition and frequency is equal to 24 months)

Rate of deterioration does not warrant more frequent inspection cycle at this time.


DECK

	09/18	09/20	08/22	
<b>1. Surface (SIA-58A)</b>	4	4	4	Most of deck spalled ~2-3". No steel visible. Dirt built up along brushblocks. Cold patch pockets at random locations throughout deck. (08/22) 18' x 6' HMA patch at center of deck. Most of deck spalled ~2-3". No steel visible. Dirt built up along brushblocks (09/20) 18' x 6' HMA patch at center of deck. Most of deck spalled ~2-3". No steel visible. Dirt built up along brushblocks (09/18)
<b>2. Expansion Joints</b>	5	5	4	HMA patching along reference lines is deteriorating and spalling out. 1/2" settlement of both approach pavements. Open potholes at south reference line and wide unsealed cracks. (08/22) HMA patching along reference lines is deteriorating and spalling out. 1/2" settlement of both approach pavements. (09/20) HMA patching along reference lines is deteriorating and spalling out. 1/2" settlement of both approach pavements. (09/18)
<b>3. Other Joints</b>	N	N	N	(08/22) (09/20) (09/18)
<b>4. Railings</b>	4	4	4	Corrosion over nearly entire rail. Pack rust on many vertical members and on bottom rail in several areas. Vertical member bent in SW panel. some panels completely rusted through. West railing. south half, covered in vines/vegetation. Spalling and cracking on several of the concrete posts. (08/22) Corrosion over nearly entire rail. Pack rust on many vertical members and on bottom rail in several areas. Spall in 2nd from the south post in the west barrier. Vertical member bent in SW panel. some panels completely rusted through. West railing. south half, covered in vines/vegetation. Map cracking in east rail, north post, bottom half. (09/20) Corrosion over nearly entire rail. Pack rust on many vertical members and on bottom rail in several areas. Spall in 2nd from the south post in the west barrier. Vertical member bent in SW panel. some panels completely rusted through. West railing. south half, covered in vines/vegetation. Map cracking in east rail, north post, bottom half. (09/18)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5854

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
BYRON ROAD	42.732 / -83.9686	47302H00023B020	Fair Condition(5)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
STONER CREEK	35 / 29.2 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 15 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	08/25/2022 / 937B	5 Stable w/in footing	

<b>5. Sidewalks or Curbs</b>	6	5	5	Spall along curbline of east brush block northern two thirds. Map cracking with leaching of east fascia. Spalling on west brush block near center of span. Spalling, cracking and leaching of west fascia. General scaling throughout. (08/22) Spall along curbline of east brush block northern two thirds. Map cracking with leaching of east fascia. Spalling on west brush block near center of span. Spalling, cracking and leaching of west fascia. (09/20) Spall along curbline of east brush block northern two thirds. Map cracking with leaching of east fascia. Spalling on west brush block near center of span. Spalling, cracking and leaching of west fascia. (09/18)
<b>6. Deck Bottom Surface (SIA-58B)</b>	6	6	6	Transverse cracks with efflorescence at 2' - 4' spacing. Average of 3 cracks per bay. (08/22) Transverse cracks with efflorescence at 2' - 4' spacing. Average of 3 cracks per bay. (09/20) Transverse cracks with efflorescence at 2' - 4' spacing. Average of 3 cracks per bay. (09/18)
<b>7. Deck (SIA-58)</b>	5	5	5	Heavy abrasion and spalling on surface and leaching cracks on underside. Spalling and crumbling concrete at isolated areas along fascias. (08/22) Heavy abrasion and spalling on surface and leaching cracks on underside. Spalling and crumbling concrete at isolated areas along fascias. (09/20) Heavy abrasion and spalling on surface and leaching cracks on underside. (09/18)
<b>8. Drainage</b>				Bridge is high point of road. Road and shoulders graded to drain properly. (08/22) Bridge is high point of road. Road and shoulders graded to drain properly. (09/20) Bridge is high point of road. Road and shoulders graded to drain properly. (09/18)

**SUPERSTRUCTURE**

	09/18	09/20	08/22	
<b>9. Stringer (SIA-59)</b>	7	7	6	Leaking between deck and backwall in a few bays. Spalling at beam ends on half of the beams. Minor section loss along top flanges. East fascia beam has minor section loss at mid span of bottom flange and web. Loss is less than 10%. Beam 5w has minor section loss on south half of span bottom of web and bottom flange. (08/22) Leaking between deck and backwall in a few bays. Spalling at beam ends on half of the beams. Minor section loss along top flanges. East fascia beam has minor section loss at mid span of bottom flange and web. Loss is less than 10%. Beam 5w has minor section loss on south half of span bottom of web and bottom flange. (09/20) Leaking between deck and backwall in a few bays. Spalling at beam ends on half of the beams. Minor section loss along top flanges. East fascia beam has minor section loss at mid span of bottom flange and web. Loss is less than 10%. Beam 5w has minor section loss on south half of span bottom of web and bottom flange. (09/18)
<b>10. Paint (SIA-59A)</b>	5	5	5	Spotty corrosion of webs and bottom flange. Much of the paint of the top flange is failing. About 50% remain on bottom flanges. (08/22) Spotty corrosion of webs and bottom flange. Much of the paint of the top flange is failing (09/20) Spotty corrosion of webs and bottom flange. Much of the paint of the top flange is failing (09/18)
<b>11. Section Loss</b>	2	2	2	Minor section loss along top flanges. Minor section loss less than 10% at beam 5W and east fascia beam at midspan. (08/22) Minor section loss along top flange of east fascia beam and beam 5w (09/20) Minor section loss along top flange of east fascia beam and beam 5w (09/18)
<b>12. Bearings</b>	7	7	6	Some rust on masonry plates. Pack rust and scaling at a few isolated locations. (08/22) Some rust on masonry plates. (09/20) Some rust on masonry plates. (09/18)


**SUBSTRUCTURE**

	09/18	09/20	08/22	
<b>13. Abutments (SIA-60)</b>	8	8	8	No cracks visible. (08/22) No cracks visible. (09/20) No cracks visible. (09/18)

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BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
BYRON ROAD	42.732 / -83.9686	47302H00023B020	Fair Condition(5)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
STONER CREEK	35 / 29.2 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 15 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	08/25/2022 / 937B	5 Stable w/in footing	

<b>14. Piers (SIA-60)</b>	N	N	N	(08/22) (09/20) (09/18)
<b>15. Slope Protection</b>	N	N	N	(08/22) (09/20) (09/18)
<b>16. Channel (SIA-61)</b>	7	7	7	Sand bar along north abutment. (08/22) Sand bar along north abutment. (09/20) Sand bar along both abutments. (09/18)
<b>17. Scour Inspection</b>	7	7	7	No evidence of scour. Slow moving water with muddy even bottom. (08/22) No evidence of scour. Slow moving water with muddy even bottom. (09/20) No evidence of scour. (09/18)

**APPROACH**

	09/18	09/20	08/22	
<b>18. Approach Pavement</b>	7	6	5	Several transverse cracks throughout north and south approach. Some settlement up to 1". Cold patch at reference lines. Some open potholes at south approach. (08/22) Several transverse cracks throughout north and south approach. Some settlement. Cold patch at reference lines. (09/20) Several transverse cracks throughout north and south approach. One transverse crack in south approach. (09/18)
<b>19. Approach Shoulders Sidewalks</b>	7	7	6	Gravel road with few small potholes. Minor erosion in NE quad. East shoulders do not drain properly. (08/22) Gravel road with few small potholes. Minor erosion in NE quad. (09/20) Gravel road with few small potholes. Minor erosion in NE quad. (09/18)
<b>20. Approach Slopes</b>				Well vegetated beyond first 8', but steep. (08/22) Well vegetated beyond first 8', but steep. (09/20) Well vegetated beyond first 8', but steep. (09/18)
<b>21. Utilities</b>				Cable zip tied to east railing. (08/22) Cable zip tied to east railing. (09/20) Cable zip tied to east railing. (09/18)
<b>22. Drainage Culverts</b>				None. (08/22) None. (09/20) None. (09/18)

**MISCELLANEOUS**

<b>Guard Rail</b>		<b>Other Items</b>	
<u>Item</u>	<u>Rating</u>	<u>Item</u>	<u>Rating</u>
36A. Bridge Railings	0	71. Water Adequacy	6
36B. Transitions	0	72. Approach Alignment	8
36C. Approach Guardrail	0	Temporary Support	0 No Temporary Supports
36D. Approach Guardrail Ends	0	High Load Hit (M)	No
		Special Insp. Equipment	2
		Underwater Insp. Method	1

False Decking (Timber) Removed to Complete Inspection N/A - No False Decking

**Critical Feature Inspections (SIA-92)**


	<u>Freq</u>	<u>Date</u>
--	-------------	-------------

92A. Fracture Critical

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**BRIDGE SAFETY INSPECTION REPORT**

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
BYRON ROAD	42.732 / -83.9686	47302H00023B020	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
STONER CREEK	35 / 29.2 / 1	County: Livingston(47)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 15 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	08/25/2022 / 937B	5 Stable w/in footing	

92B. Underwater


92C. Other Special

92D. Fatigue Sensitive

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STRUCTURE INVENTORY AND APPRAISAL

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
BYRON ROAD	42.732 / -83.9686	47302H00023B020	Fair Condition(5)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
STONER CREEK	35 / 29.2 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 15 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	08/25/2022 / 937B	5 Stable w/in footing	

**Bridge History, Type, Materials**

27 - Year Built	1947
106 - Year Reconstructed	
202 - Year Painted	
203 - Year Overlay	
43 - Main Span Bridge Type	3 02
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	0
79 - Rail Type	4
80 - Post Type	0
107 - Deck Type	1
108A - Wearing Surface	1
108B - Membrane	0
108C - Deck Protection	0

**Structure Dimensions**

34 - Skew	0
35 - Struct Flared	0
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	33.8
49 - Structure Length	35
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	24
52 - Width Out to Out	29.2
112 - NBIS Length	Y

**Inspection Data**

90 - Inspection Date	08/25/2022
91 - Inspection Freq	24
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	5
58A/B - Deck Surface/Bottom	4 6
59 - Superstructure Rating	6
59A - Paint Rating	5
60 - Substructure Rating	8
61 - Channel Rating	7
62 - Culvert Rating	N

**Navigation Data**

38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brgd Vert Clear	

**Route Carried By Structure(ON Record)**

5A - Record Type	1
5B - Route Signing	4
5C - Level of Service	0
5D - Route Number	00000
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000009397 03
19 - Detour Length	4
20 - Toll Facility	3
26 - Functional Class	09
28A - Lanes On	2
29 - ADT	249
30 - Year of ADT	2013
32 - Appr Roadway Width	24
32A/B - Ap Pvt Type/Width	2 24.02
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	24.0
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	0
110 - Truck Network	0
114 - Future ADT	585
115 - Year Future ADT	2004
Freeway	0

**Structure Appraisal**

36A - Bridge Railing	0
36B - Rail Transition	0
36C - Approach Rail	0
36D - Rail Termination	0
67 - Structure Evaluation	6
68 - Deck Geometry	5
69 - Underclearance	N
71 - Waterway Adequacy	6
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	5

**Miscellaneous**

37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	

**Route Under Structure (UNDER Record)**

5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	

**Proposed Improvements**

75 - Type of Work	
76 - Length of Improvement	
94 - Bridge Cost	
95 - Roadway Cost	
96 - Total Cost	
97 - Year of Cost Estimate	

**Load Rating and Posting**

31 - Design Load	6
41 - Open, Posted, Closed	P
63 - Fed Oper Rtg Method	6
64F - Fed Oper Rtg Load	1.16
64MA - Mich Oper Rtg Method	6
64MB - Mich Oper Rtg	.75
64MC - Mich Oper Truck	18
65 - Inv Rtg Method	6
66 - Inventory Load	.69
70 - Posting	3
141 - Posted Loading	425468
193 - Overload Class	

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5854

WORK RECOMMENDATIONS

<b>Facility</b> BYRON ROAD	<b>Latitude / Longitude</b> 42.732 / -83.9686	<b>MDOT Structure ID</b> 47302H00023B020	<b>Structure Condition</b> Fair Condition(5)	
<b>Feature</b> STONER CREEK	<b>Length / Width / Spans</b> 35 / 29.2 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 15 COHOCTAH TWP	<b>Built / Recon. / Paint / Ovly.</b> 1947 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(425468)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 3 Steel / 02 Multi Str Non Comp	<b>Last NBI Inspection</b> 08/25/2022 / 937B	<b>Scour Evaluation</b> 5 Stable w/in footing	

WORK RECOMMENDATIONS

937B

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	08/25/2022

RECOMMENDATIONS & ACTION ITEMS

Recommendation Type	Priority	Description
Deep Overlay	L	Place HMA overlay with deck patching
Full Paint	L	paint beams

**2a. Situation Map**

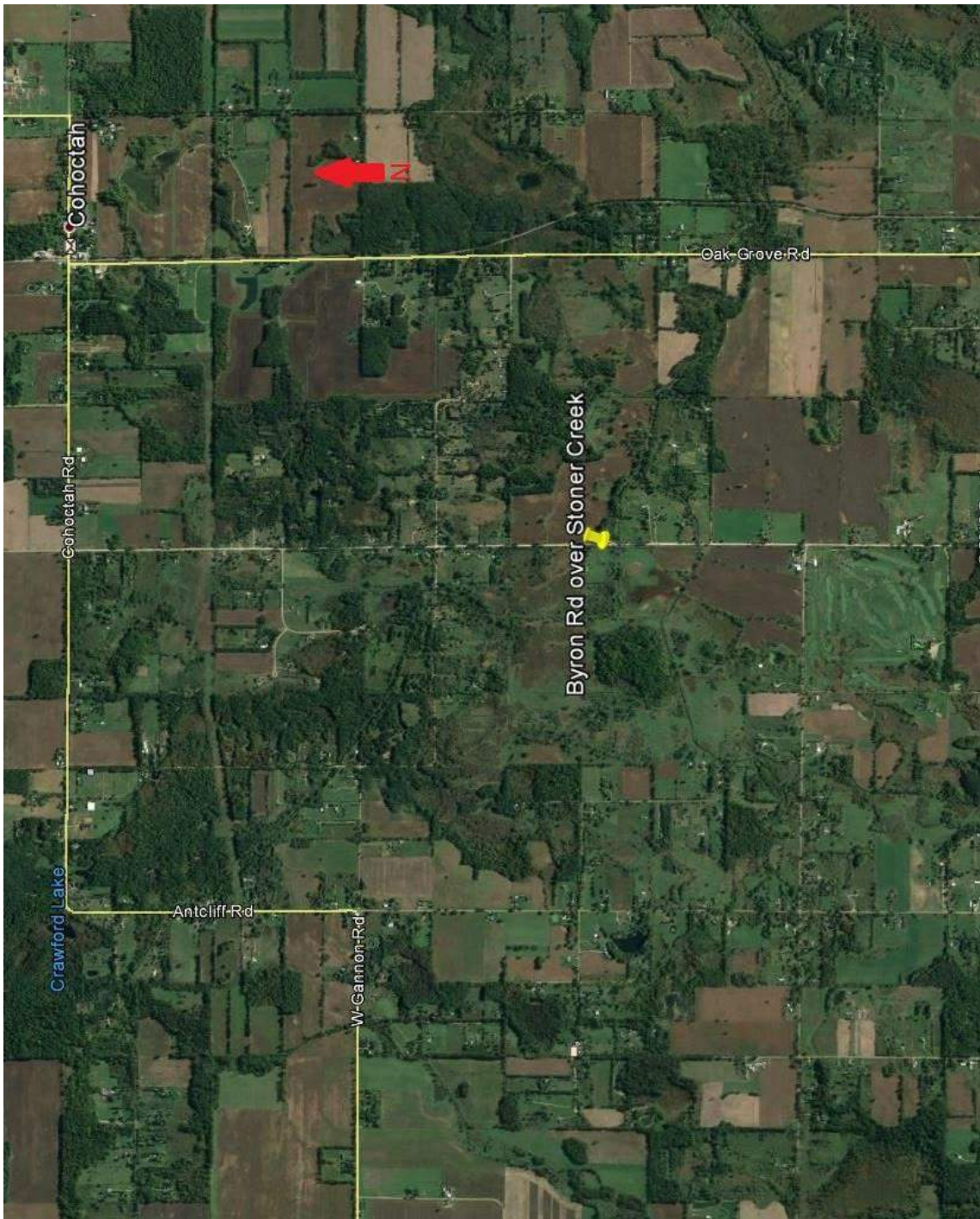
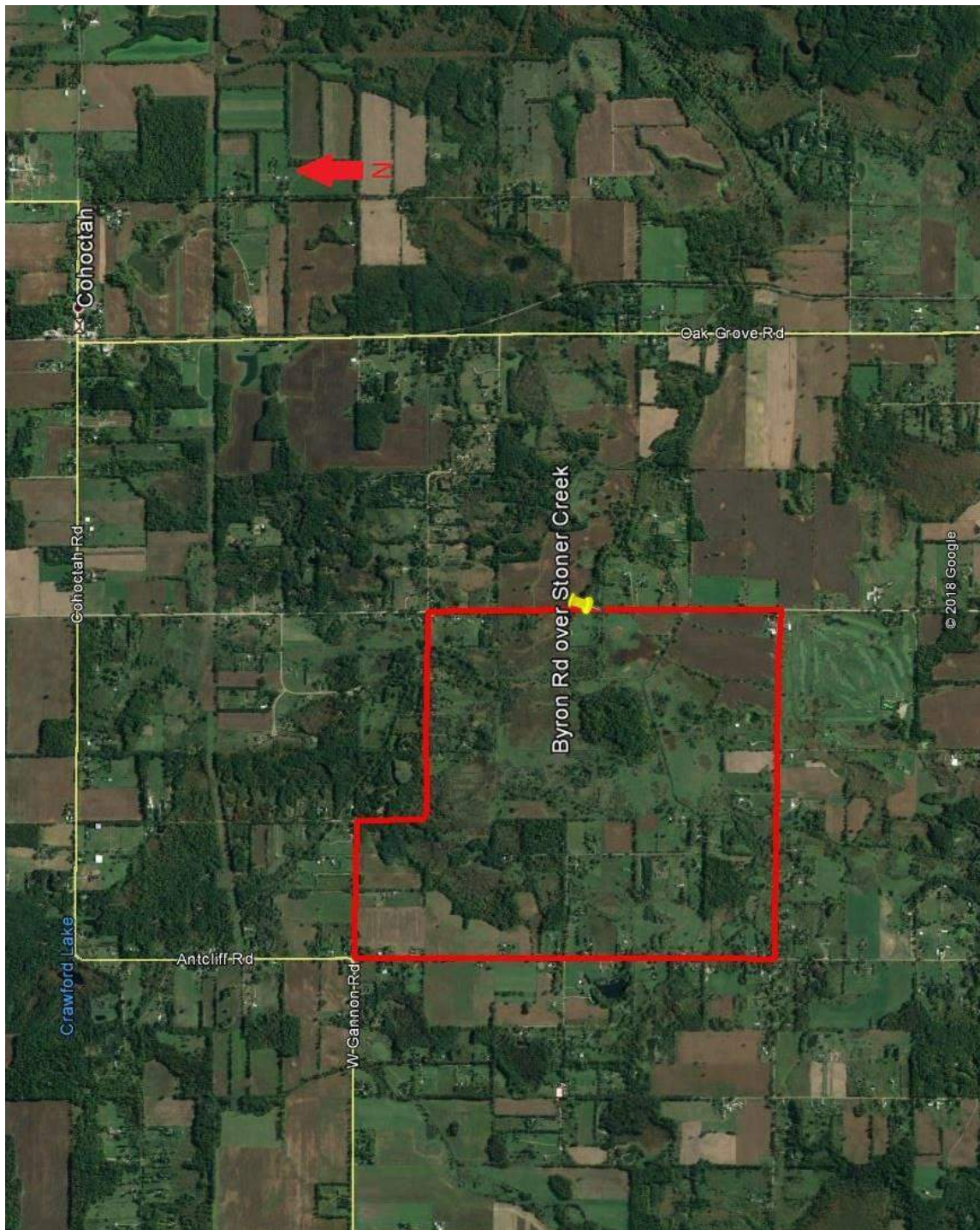


Image from Google Earth



## 2b. Detour Map



Byron to Gannon  
To Antcliff  
To Steinacker  
To Byron

Detour Length: 5.49 Miles

Image from Google Earth

### 3. Photographs



North approach looking south



North reference line



Typical Surface



Barrier



Typical underside



South abutment



West elevation

#### **4. Application Requirements for Byron Road over Stoner Creek**

##### **A. Local Agency Contact Person**

Steve Wasylk, PE  
Managing Director  
(517) 546-4250

##### **B. The purpose of this application is for the preventative maintenance of the bridge carrying Byron Road over Stoner Creek. Funding requested for a deep overlay, deck patching, painting the beams, railing replacement, resealing bridge end joints, and approach pavement replacement.**

##### **C. Economic Importance of the Structure**

This structure is located approximately 7.5 miles north of the City of Howell. Byron Road is a north/south roadway that serves local residences and farms in the area.

Although there are no schools in the immediate area of the bridge, Byron Road is utilized by the school district for bussing purposes. If bus traffic is not able to cross the bridge it will put a financial burden on the already tight school budgets because of increased length of bus routes. Emergency vehicles would also be impacted by the closing as well, increasing response times.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: [Livingston County Asset Management Plan](#)

The existing bridge is a steel beam structure with a 35' span. It is overall in fair condition. The deck surface has an 18'x6' HMA patch of the center of the deck. Most of the deck surface is spalled 2" to 3" down, but no steel is visible. The deck underside has transverse cracks with efflorescence at 2' to 4' spacing with an average of 3 cracks per bay. A deep overlay is recommended to fill in the pits and valleys worn into the deck surface. This will keep water from ponding in the deteriorated areas and preserve the condition of the deck.

The existing bridge railing is an old style steel design which is not crash tested. It is exhibiting corrosion over the entire steel portion of the rail with pack rust on many of the vertical members. The brush block portion of the barrier is spalled, scaled, and map cracked. The railing should be replaced to prevent deterioration that could become a safety issue. The beams should be painted to preserve them from deterioration leading to more expensive repairs or replacement.

The existing HMA approaches have a few transverse cracks throughout. The approaches should be replaced to ensure that the end of the bridge is protected. A smooth approach/bridge transition reduces impact on the

superstructure and protects the abutments from deterioration. If left alone the increase in impact can cause the deck to crack and deteriorate from water infiltration which will speed the deterioration of the entire structure.

Often preventative maintenance work is small in nature and bid prices are higher than average. Combining multiple bridges, with the same or similar fixes, in the same general area can help reduce bid prices slightly. Byron Road over Shiawassee River, Byron Road over Stoner Creek, and Oak Grove Rd over Shiawassee River are structures that have similar preventative maintenance needs and are within 1 mile of each other making them perfect candidates to pair together.

This structure is posted due to H-15 design of the substructure. There currently is minimal distress noted in the substructure as well as the steel beams. The bridge is functioning well for its intended purpose with the local needs. It is therefore a fiscally responsible approach to preserve the superstructure elements as long as possible.

**D. If there is a current detour, what does it affect?**

Currently the bridge is open to traffic and there is no detour.

**E. If the structure were to be closed, what would the detour affect?**

If the structure were to be closed, the detour would affect the residents and farmers in the area. Emergency services would have to detour around the Byron Road over Stoner Creek bridge, resulting in increased response times. As every second matters in an emergency, this could become a public safety issue. The school system, with its already tight budget, will have cost increases because of the need to reroute its busses.

**F. The structure is not currently closed.**

**G. Maintenance of the Structure**

No maintenance has been done on this structure.

**5. Estimated Rehabilitation Costs**

<u>Shallow Overlay and Bridge Railing Replacement</u>	
A. Approach Construction	\$ 97,000.00
B. Structure Construction	\$ 243,000.00
Total (A & B)	\$ 340,000.00

For a breakdown of Construction costs, see Appendix A.

## **6. Priority List**

1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation - Superstructure Replacement)
2. Fowlerville Rd over Red Cedar River (Rehabilitation - Superstructure Replacement)
3. Milett Rd over Red Cedar River (Bridge Replacement)
4. **Multiple PM**
  1. **Byron Rd over Stoner Creek**
  2. **Byron Rd over Shiawassee River**
  3. **Oak Grove Rd over Shiawassee River**

## **7. Resolution**

The resolution is attached in Appendix B.

## **8. Previous Applications**

It is understood that all previous applications have been discarded and that this application will be used to select funding.



## **APPENDIX A**

Exhibit 4 - Cost Estimating Worksheet

2024

BRIDGE COST ESTIMATE WORKSHEET  
- CPM, REHAB, REPLACE -

REV. 02/8/2024

OWNER: Livingston County	FISCAL YEAR: 2027	Out to Out	Curb to Curb	DATE: 3/8/2024
REGION: University		LENGTH	WIDTH	ENGINEER: KSO
TSC: Brighton	PR: #N/A MP: #N/A	35.0	29.2	24.0
LOCATION: BYRON ROAD over STONER CREEK				STRUCTURE ID: 5854
PRIMARY WORK ACTIVITY Overlay - Deep		DECK AREA: 1,022	SFT	BRIDGE ID: N/A
OTHER WORK: Approach paving, scour countermeasures		CLEAR ROADWAY: 840	SFT	STR. TYPE: Steel
				Multi-Stringer, W or I-Bear

WORK ACTIVITY	MDOT Bridge Design Guides	QUANTITY	UNIT	UNIT COST	TOTAL
<b>NEW BRIDGE</b> (increase deck area based on design standards and hydraulic requirements)					
Single or Multiple Spans, Grade Separation	(add demo, approach, MOT)		SFT	\$435.00/SFT	
Single Span, Over Water	Length < 100ft (add demo, approach, MOT)		SFT	\$525.00/SFT	
Multiple Spans, Over Water	Length > 100ft (add demo, approach, MOT)		SFT	\$470.00/SFT	
Precast Culvert	Length < 40ft (add demo, approach, MOT)		SFT	\$565.00/SFT	
<b>NEW SUPERSTRUCTURE</b>					
New Superstructure, Grade Separation	(incl. remove exist deck/super; add MOT & approach)		SFT	\$310.00/SFT	
New Superstructure, Over Water	(incl. remove exist deck/super; add MOT & approach)		SFT	\$315.00/SFT	
<b>WIDENING</b>					
Structure Widening, ft	(incl. deck/super/sub widening, add approach transition)		SFT	\$630.00/SFT	
<b>NEW DECK</b>					
New Bridge Deck & Barrier	(incl. remove exist deck/railing, add approach, MOT)		SFT	\$150.00/SFT	
<b>DEMOLITION</b>					
Entire Structure, Grade Separation			SFT	\$75.00/SFT	
Entire Structure, Over Water			SFT	\$95.00/SFT	
<b>DECK REPAIR / TREATMENTS</b>					
Bridge Railing Replacement	(incl. removal and replacement)	70.0	FT	\$750.00/FT	\$52,500.00
Concrete Brush Block / Curb Patch	(incl. hand chipping and formwork)		FT	\$29.00/FT	
Concrete Barrier Patch	(incl. hand chipping and formwork)		SFT	\$85.00/SFT	
Concrete Deck Patch	(incl. hand chipping)	100.0	SFT	\$68.00/SFT	\$6,800.00
Deep Overlay	(incl. joint repl & hydro)	1,022.0	SFT	\$46.00/SFT	\$47,012.00
Epoxy Overlay	(incl. warranty)		SYD	\$48.00/SYD	
Expansion Joint Gland Replacement	(remove and replace elastomeric gland)		FT	\$125.00/FT	
Expansion Joint Replacement	(incl. removal)		FT	\$860.00/FT	
Full Depth Patch			SFT	\$140.00/SFT	
Healer / Sealer	(penetrates cracks in bridge deck)		SYD	\$30.00/SYD	
HMA Overlay with WP membrane			SYD	\$60.00/SYD	
Overlay Removal	(Epoxy: \$22/syd   Latex: \$26/syd   HMA: \$7/syd)		SYD	\$22.00/SYD	
Reseal Bridge Joints			FT	\$28.00/FT	
Shallow Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
<b>SUPERSTRUCTURE REPAIR</b>					
Bearing Realignment / Replacement	(incl. temporary supports)		EA	\$6,450.00/EA	
Heat Straightening	(incl. clean and coat)		EA	\$57,000.00/EA	
Pack Rust Repair	(greater than 3/8" separation)		FT	\$1,150.00/FT	
Paint - Complete	(incl. clean & coat)	1,294.4	SFT	\$45.00/SFT	\$58,249.80
Paint - Partial / Spot / Zone	(incl. clean & coat - \$20k minimum)		SFT	\$120.00/SFT	
PCI Beam End Blockout	(incl. temporary supports)		EA	\$7,200.00/EA	
Pin & Hanger Replacement	(incl. temporary supports)		EA	\$17,000.00/EA	
Structural Steel Repair	(based on 6ft repair length)		EA	\$4,000.00/EA	
Structural Steel Repair - Stiffener	(includes each side of beam)		EA	\$1,500.00/EA	
<b>SUBSTRUCTURE REPAIR</b>					
Substructure Patching	(measured x 2) replace if repair area > 30%		CFT	\$360.00/CFT	
Substructure Replacement	(incl. temporary supports, excavation)		CFT	\$375.00/CFT	
Substructure Horizontal Surface Sealer			SYD	\$75.00/SYD	
Temporary Supports	(add Structural Steel Repair - Stiffener for ea steel beam)		EA	\$4,000.00/EA	
<b>MISCELLANEOUS</b>					
Articulating Concrete Block System (ACB)			SYD	\$320.00/SYD	
Concrete Surface Coating			SYD	\$47.00/SYD	
Culvert Cleanout			FT	\$125.00/FT	
Epoxy Crack Injection	(structural crack repair)		FT	\$70.00/FT	
Metal Mesh Panels	(48" width, max 6'-6" length)		SFT	\$28.00/SFT	
Pressure Relief Joint	(use when approach concrete roadway exceeds 1,000ft)		FT	\$110.00/FT	
Riprap	(assume 10ft distance around perimeter of substructure)		SYD	\$275.00/SYD	
Silane Treatment	(penetrating sealer for concrete surfaces)		SFT	\$7.00/SFT	
Slope Protection Repairs			SYD	\$150.00/SYD	
Other	Scour Countermeasures		LSUM	\$75,000.00/LSUM	

**STRUCTURE CONSTRUCTION BUDGET** \$164,562

<b>ROAD WORK</b>					
Approach Pavement, 12" RC	(incl. removal; add curb, gutter, guardrail) 40' ea. end		SYD	\$230.00/SYD	
Approach Curb & Gutter	(incl. removal) 40' ea. quadrant		FT	\$57.00/FT	
Guardrail Anchorage to Bridge	(each quadrant)	4.0	EA	\$2,540.00/EA	\$10,160.00
Guardrail	(incl. removal) < 200ft beyond reference line		FT	\$41.00/FT	
Guardrail Terminal	(each quadrant)	4.0	EA	\$3,900.00/EA	\$15,600.00
Roadway Approach Work	(beyond approach pavement)		LSUM	LSUM	
HMA Removal Approach		344.4	SYD	\$8.00/SYD	\$2,756
HMA Approach Pavement		3,100.0	SFT	\$12.00/SFT	\$37,200
Utilities			LSUM	LSUM	

<b>TRAFFIC CONTROL</b> <i>Unit Cost to be determined by Region or TSC Traffic &amp; Safety</i>					
Part Width Construction			LSUM	LSUM	
Crossovers			EA	/EA	
Temporary Traffic Signals			set	/set	
RR Flagging			LSUM	LSUM	
Detour		1.0	LSUM	\$30,000.00/LSUM	\$15.00

**RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET** \$65,731

<b>CONTINGENCY</b>	(10% - 20%) (use higher contingency for small projects)	20	%	\$230,000.00	\$46,000
<b>MOBILIZATION</b>	(estimate at 10%)	10	%	\$276,000.00	\$28,000
<b>INFLATION</b>	(assume 4% per year, beginning in 2025)	12	%	\$304,000.00	\$36,000

(Does not include PE or CE)

**TOTAL CONSTRUCTION BUDGET** \$340,000

## **APPENDIX B**

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5853

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
BYRON ROAD	42.7281 / -83.9684	47302H00023B010	Fair Condition(5)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
SHIAWASSEE RIVER	45 / 29.2 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 22 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 9B5U	5 Stable w/in footing	

NBI INSPECTION

9B5U

<b>Inspector Name</b>	<b>Agency / Company Name</b>	<b>Insp. Freq.</b>	<b>Insp. Date</b>
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	09/14/2022

GENERAL NOTES

posted 42/54/68

<b>Weight limit signs in place on both ends of bridge</b>	YES
<b>Weight limit shown on signs at bridge</b>	425468
<b>Required advance warning weight limit signs in place</b>	YES
<b>Weight limit shown on advance warning signs</b>	425468

Frequency Justification Comments (required when Poor Condition and frequency is equal to 24 months)

Rate of deterioration does not warrant more frequent inspections at this time.

DECK


09/18 09/20 09/22

<b>1. Surface (SIA-58A)</b>	5	5	4	Entire surface is abraded and scaled. Same isolated spalls up to 2" deep. Vegetation buildup along brush blocks. Some cold patches throughout. No rebar visible. Deck drains covered by debris. (09/22) Abraded. 2" deep spall in NB lane (3'x24') with some cold patch in place. 2 Spalls in SB lane ~2" deep (2'x3' each) plus other small areas with 1" deep spalls with some cold patch in place. No rebar visible. Deck drains covered by debris. (09/20) Abraded. 2" deep spall in NB lane (3'x24') with some cold patch in place. 2 Spalls in SB lane ~2" deep (2'x3' each) plus other small areas with 1" deep spalls with some cold patch in place. No rebar visible. Deck drains covered by debris. (09/18)
<b>2. Expansion Joints</b>	5	5	4	South reference line is abraded. 3" wide openings filled with cold patch. Some open potholes surrounding joint. (09/22) South reference line is abraded. 3" wide openings filled with cold patch. (09/20) South reference line is abraded. 3" wide openings filled with cold patch. (09/18)
<b>3. Other Joints</b>	N	N	N	(09/22) (09/20) (09/18)
<b>4. Railings</b>	6	5	4	Heavy corrosion on railing elements throughout. No vehicle damage. Small spall in 2nd post from north on east rail and minor cracks in other posts on east rail. A few holes in the bottom metal rail on east side. (09/22) Spotted corrosion across entire rail. No vehicle damage. Small spall in 2nd post from north on east rail and minor cracks in other posts on east rail. A few holes in the bottom metal rail on east side. (09/20) Spotted corrosion across entire rail. No vehicle damage. Small spall in 2nd post from north on east rail and minor cracks in other posts on east rail. (09/18)
<b>5. Sidewalks or Curbs</b>	5	5	5	Spalling and scaling along entire length of east curb at toe and a few spalls on west toe of curb. Spalling, scaling and map cracking on both fascias. Spall at south end of west brush block. Scaling on north half of west brush block. (09/22) Spalling along entire length of east curb at toe and a few spalls on west toe of curb. Spalling, scaling and map cracking on both fascias. Spall at south end of west brush block. (09/20) Spalling along entire length of east curb at toe and a few spalls on west toe of curb. Spalling, scaling and map cracking on both fascias. Spall at south end of west brush block. (09/18)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5853

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
BYRON ROAD	42.7281 / -83.9684	47302H00023B010	Fair Condition(5)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
SHIAWASSEE RIVER	45 / 29.2 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 22 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 9B5U	5 Stable w/in footing	

<b>6. Deck Bottom Surface (SIA-58B)</b>	7	7	6	Efflorescence along top flange of beams. Some stalactites. Some small popout spalls over the entire length. (09/22) Efflorescence along top flange of beams. No spalls. (09/20) Efflorescence along top flange of beams. No spalls. (09/18)
<b>7. Deck (SIA-58)</b>	5	5	5	Fascia is map cracked and spalled. East fascia spalled over the entire length. Efflorescence throughout length on both sides. Entire surface is abraded and scaled. Same isolated spalls up to 2" deep. Vegetation buildup along brush blocks. Some cold patches throughout. No rebar visible. Deck drains covered by debris. Efflorescence along top flange of beams. Some stalactites. Some small popout spalls over the entire length. (09/22) Fascia is map cracked and spalled. East fascia spalled on north third. Efflorescence throughout length on both sides. (09/20) Fascia is map cracked and spalled. East fascia spalled on north third. Efflorescence throughout length on both sides. (09/18)
<b>8. Drainage</b>				(09/22) Bridge is high point. Road graded to allow for proper drainage. (09/20) Bridge is high point. Road graded to allow for proper drainage. (09/18)

**SUPERSTRUCTURE**

09/18 09/20 09/22

<b>9. Stringer (SIA-59)</b>	6	6	6	Beams have corrosion along bottom flanges and spots on webs with minimal section loss. Some leaking between backwall and abutment at the south side. (09/22) Beams have corrosion along bottom flanges and spots on webs with minimal section loss. Some leaking between backwall and abutment in second bay in SW quad. (09/20) Beams have corrosion along bottom flanges and spots on webs with minimal section loss. Some leaking between backwall and abutment in second bay in SW quad. (09/18)
<b>10. Paint (SIA-59A)</b>	4	4	4	Approximately 30% paint gone on bottom flange and 5% gone on webs and top flanges. (09/22) Approximately 30% paint gone on bottom flange and 5% gone on webs and top flanges. (09/20) Approximately 30% paint gone on bottom flange and 5% gone on webs and top flanges. (09/18)
<b>11. Section Loss</b>	2	2	2	Minor section loss. Less than 5%. (09/22) Minor section loss. (09/20) Minor section loss. (09/18)
<b>12. Bearings</b>	7	7	6	Mostly encased in concrete. A few isolated bearings visible show signs of moderate scaling. (09/22) No problems noted. (09/20) No problems noted. (09/18)

**SUBSTRUCTURE**

09/18 09/20 09/22

<b>13. Abutments (SIA-60)</b>	7	7	6	Map cracking and efflorescence in wingwalls. No cracks in north abutment. Vertical crack isolated in south abutment. Backwall leaching at south abutment. some spalling and crumbling concrete at northeast corner of abutment and return wall. (09/22) Map cracking and efflorescence in wingwalls. No cracks in north abutment. 1 vertical crack in south abutment. Backwall leaching at south abutment. some spalling and crumbling concrete at northeast corner of abutment and return wall. (09/20) Map cracking and efflorescence in wingwalls. No cracks in north abutment. 1 vertical crack half way up of south abutment. Backwall leaching at south abutment. some spalling and crumbling concrete at northeast corner of abutment and return wall. (09/18)
<b>14. Piers (SIA-60)</b>	N	N	N	(09/22) (09/20) (09/18)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5853

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
BYRON ROAD	42.7281 / -83.9684	47302H00023B010	Fair Condition(5)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
SHIAWASSEE RIVER	45 / 29.2 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 22 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 9B5U	5 Stable w/in footing	

<b>15. Slope Protection</b>	N	N	N	(09/22) (09/20) (09/18)
<b>16. Channel (SIA-61)</b>	7	7	7	Channel directed to the north abutment. Some tires along bottom. No sign of scour. Downed tree along south bank under bridge. (09/22) Channel directed to the north abutment. Some tires along bottom. No sign of scour. Downed tree along south bank under bridge. (09/20) Channel directed to the north abutment. Some tires along bottom. No sign of scour. Downed tree across most of channel at west (upstream) face. (09/18)
<b>17. Scour Inspection</b>	7	7	7	No scour evident. channel is in good condition. No riprap (09/22) No scour evident. channel is in good condition. No riprap (09/20) No scour evident. channel is in good condition. No riprap (09/18)

APPROACH

09/18 09/20 09/22

<b>18. Approach Pavement</b>	7	7	5	Crumbling pavement at reference lines. Transverse and longitudinal cracking throughout. (09/22) Wide trans crack ~8' north and south of reference lines. North approach also has alligator cracks throughout. Longitudinal cracks in south approach. (09/20) Wide trans crack ~8' north and south of reference lines. North approach also has alligator cracks throughout. Longitudinal cracks in south approach. (09/18)
<b>19. Approach Shoulders Sidewalks</b>	7	7	6	Gravel shoulders with grass beyond limits. Slightly built up and do not drain properly, but is stable. (09/22) Gravel road with small potholes mostly in south approach (09/20) Gravel road with small potholes mostly in south approach (09/18)
<b>20. Approach Slopes</b>				(09/22) Vegetated beyond first 8' and in good condition, but steep. (09/20) Vegetated beyond first 8' and in good condition, but steep. (09/18)
<b>21. Utilities</b>				(09/22) None (09/20) None (09/18)
<b>22. Drainage Culverts</b>				(09/22) (09/20) (09/18)

MISCELLANEOUS

Guard Rail

Item	Rating
36A. Bridge Railings	0
36B. Transitions	0
36C. Approach Guardrail	0
36D. Approach Guardrail Ends	0

Other Items

Item	Rating
71. Water Adequacy	7
72. Approach Alignment	8
Temporary Support	0 No Temporary Supports
High Load Hit (M)	No
Special Insp. Equipment	2
Underwater Insp. Method	1

False Decking (Timber) Removed to Complete Inspection

N/A - No False Decking


Critical Feature Inspections (SIA-92)

	Freq	Date
92A. Fracture Critical		
92B. Underwater		

MICHIGAN DEPARTMENT OF TRANSPORTATION

**STR 5853**

**BRIDGE SAFETY INSPECTION REPORT**

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
BYRON ROAD	42.7281 / -83.9684	47302H00023B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SHIAWASSEE RIVER	45 / 29.2 / 1	County: Livingston(47)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 22 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 9B5U	5 Stable w/in footing	


92C. Other Special

92D. Fatigue Sensitive

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5853

STRUCTURE INVENTORY AND APPRAISAL

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
BYRON ROAD	42.7281 / -83.9684	47302H00023B010	Fair Condition(5)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
SHIAWASSEE RIVER	45 / 29.2 / 1	County: Livingston(47)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
SEC 22 COHOCTAH TWP	1947 / / /	Brighton(3)	P Posted for load(425468)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 9B5U	5 Stable w/in footing	

Bridge History, Type, Materials	
27 - Year Built	1947
106 - Year Reconstructed	
202 - Year Painted	
203 - Year Overlay	
43 - Main Span Bridge Type	3 02
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	0
79 - Rail Type	4
80 - Post Type	0
107 - Deck Type	1
108A - Wearing Surface	1
108B - Membrane	0
108C - Deck Protection	0

Structure Dimensions	
34 - Skew	0
35 - Struct Flared	N
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	40.4
49 - Structure Length	45
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	24
52 - Width Out to Out	29.2
112 - NBIS Length	Y

Inspection Data	
90 - Inspection Date	09/14/2022
91 - Inspection Freq	24
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	5
58A/B - Deck Surface/Bottom	4 6
59 - Superstructure Rating	6
59A - Paint Rating	4
60 - Substructure Rating	6
61 - Channel Rating	7
62 - Culvert Rating	N

Navigation Data	
38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brgd Vert Clear	

Route Carried By Structure(ON Record)	
5A - Record Type	1
5B - Route Signing	4
5C - Level of Service	0
5D - Route Number	00000
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000009397 03
19 - Detour Length	4
20 - Toll Facility	3
26 - Functional Class	09
28A - Lanes On	2
29 - ADT	249
30 - Year of ADT	2013
32 - Appr Roadway Width	24
32A/B - Ap Pvt Type/Width	2 24.02
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	24.0
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	0
110 - Truck Network	0
114 - Future ADT	903
115 - Year Future ADT	2015
Freeway	0

Structure Appraisal	
36A - Bridge Railing	0
36B - Rail Transition	0
36C - Approach Rail	0
36D - Rail Termination	0
67 - Structure Evaluation	6
68 - Deck Geometry	5
69 - Underclearance	N
71 - Waterway Adequacy	7
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	5

Miscellaneous	
37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	

Route Under Structure (UNDER Record)	
5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	

Proposed Improvements	
75 - Type of Work	
76 - Length of Improvement	
94 - Bridge Cost	
95 - Roadway Cost	
96 - Total Cost	
97 - Year of Cost Estimate	

Load Rating and Posting	
31 - Design Load	6
41 - Open, Posted, Closed	P
63 - Fed Oper Rtg Method	6
64F - Fed Oper Rtg Load	1.24
64MA - Mich Oper Rtg Method	6
64MB - Mich Oper Rtg	.8
64MC - Mich Oper Truck	18
65 - Inv Rtg Method	6
66 - Inventory Load	.74
70 - Posting	3
141 - Posted Loading	425468
193 - Overload Class	



MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5853

WORK RECOMMENDATIONS

<b>Facility</b> BYRON ROAD	<b>Latitude / Longitude</b> 42.7281 / -83.9684	<b>MDOT Structure ID</b> 47302H00023B010	<b>Structure Condition</b> Fair Condition(5)	
<b>Feature</b> SHIAWASSEE RIVER	<b>Length / Width / Spans</b> 45 / 29.2 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 22 COHOCTAH TWP	<b>Built / Recon. / Paint / Ovly.</b> 1947 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> P Posted for load(425468)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 3 Steel / 02 Multi Str Non Comp	<b>Last NBI Inspection</b> 09/14/2022 / 9B5U	<b>Scour Evaluation</b> 5 Stable w/in footing	

WORK RECOMMENDATIONS

9B5U

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	09/14/2022

RECOMMENDATIONS & ACTION ITEMS

Recommendation Type	Priority	Description
Approach Repair	L	Replace approaches.
Deep Overlay	L	Deep concrete overlay.

**2a. Situation Map**

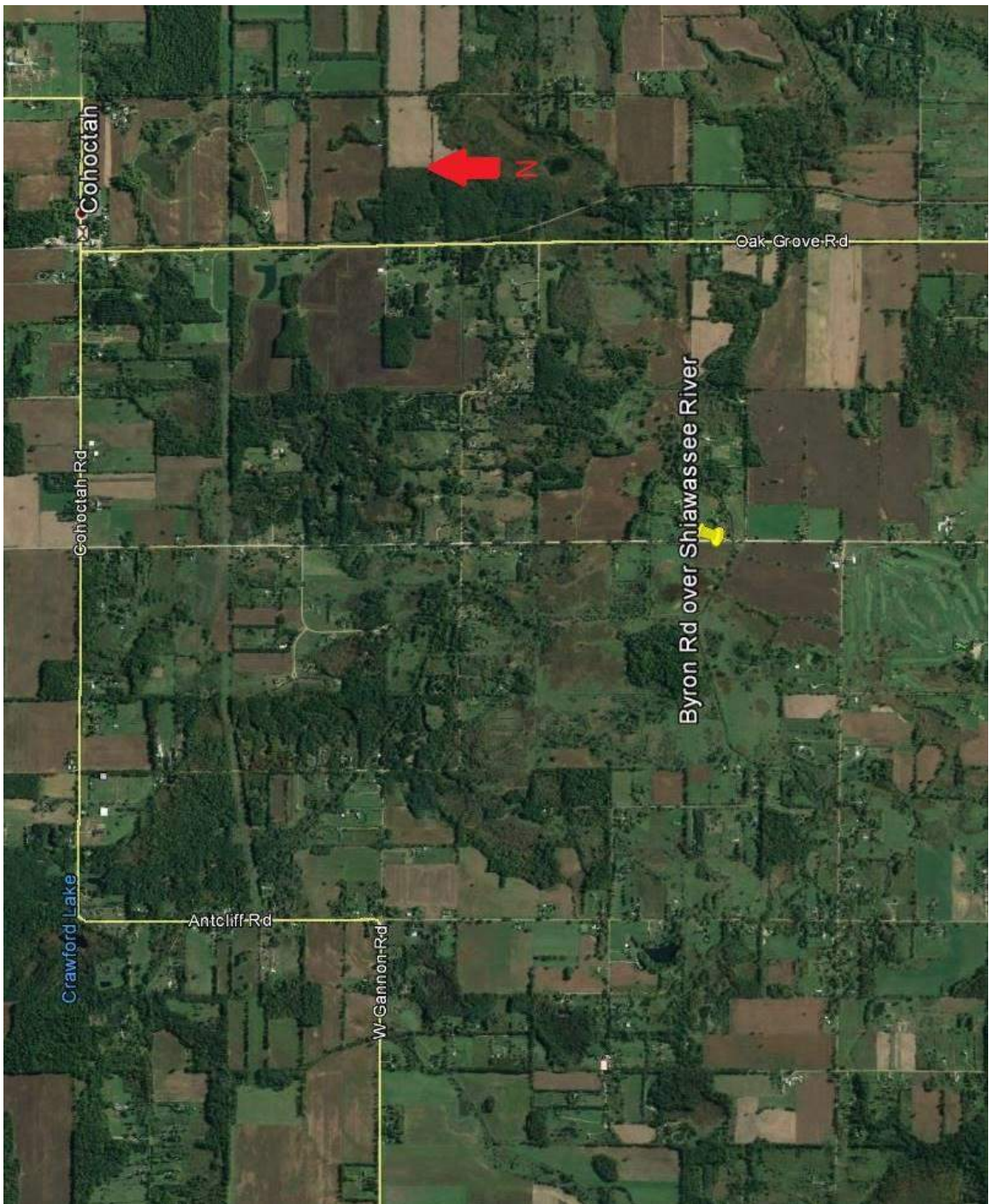
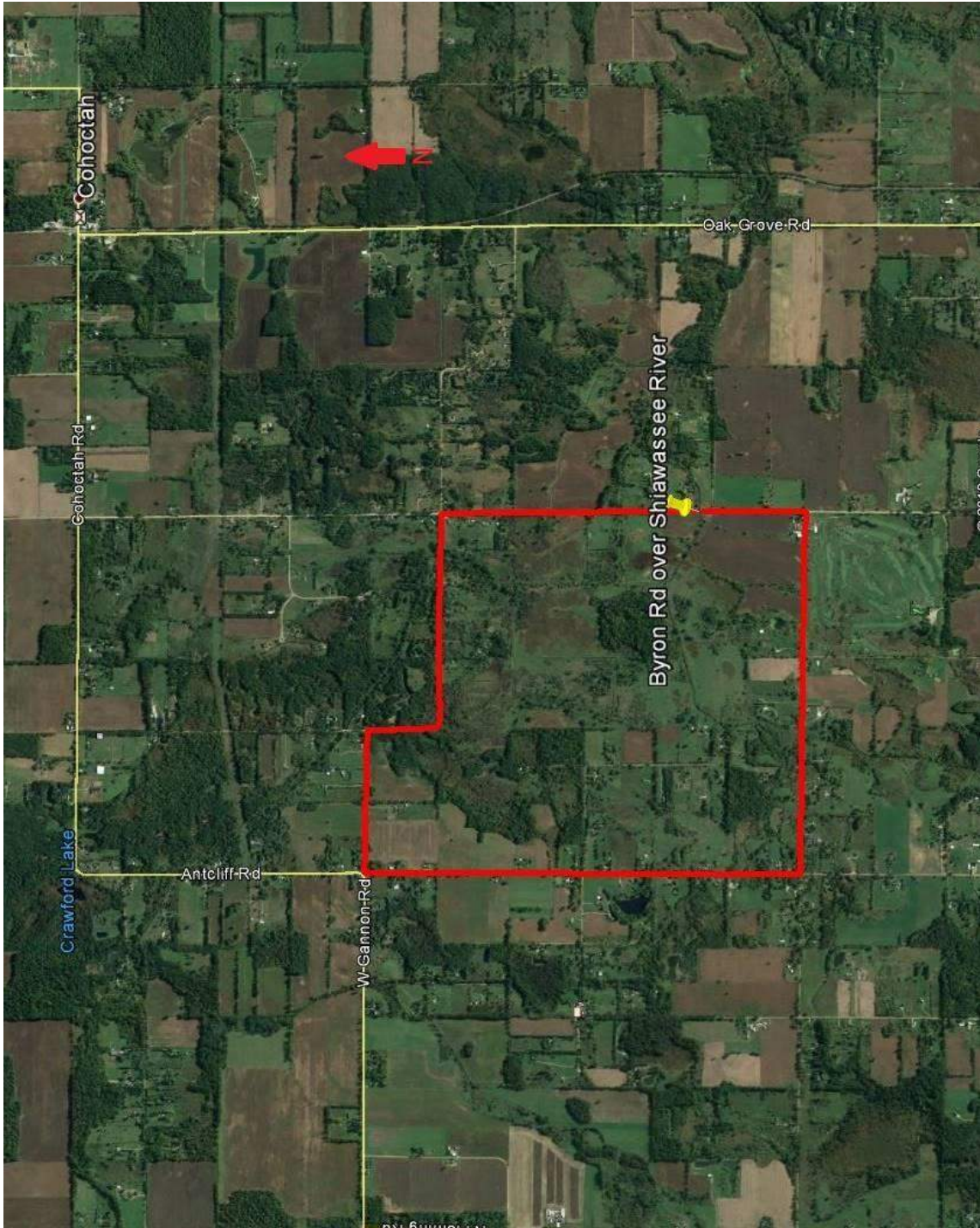


Image from Google Earth

**2b. Detour Map**



Byron to Gannon  
To Antcliff  
To Steinacker  
To Byron

Detour Length: 5.49 Miles

Image from Google Earth

### 3. Photographs



North approach looking south



Deck surface



South reference line



Barrier



Deck underside



North abutment



East elevation

#### **4. Application Requirements for Byron Road over Shiawassee River**

##### **A. Local Agency Contact Person**

Steve Wasyk, PE  
Managing Director  
(517) 546-4250

##### **B. The purpose of this application is for the preventative maintenance of the bridge carrying Byron Road over Shiawassee River. Funding requested for deep concrete overlay, painting the steel beams, railing replacement, scour countermeasures, and approach pavement replacement.**

##### **C. Economic Importance of the Structure**

This structure is located approximately 7.5 miles north of the City of Howell. Byron Road is a north/south roadway that serves local residences and farms in the area.

Although there are no schools in the immediate area of the bridge, Byron Road is utilized by the school district for bussing purposes. If bus traffic is not able to cross the bridge it will put a financial burden on the already tight school budgets because of increased length of bus routes. Emergency vehicles would also be impacted by the closing as well, increasing response times.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: [Livingston County Asset Management Plan](#)

The existing bridge is a steel beam structure with a 45' span. It is overall in fair condition. The concrete deck surface of the bridge is heavily abraded with a 3'x24' 2" deep spall in the northbound lane, and 2 spalls that are 2'x3' 2" deep in the southbound lane. There are other small areas on the surface with 1" deep spalls. No rebar is visible in any of the spalls. The deck underside has efflorescence along the top flange of the beams, but no spalling. A deep overlay is recommended to fill in the pits and valleys worn into the deck surface. This will keep water from ponding in the deteriorated areas and preserve the condition of the deck.

The existing bridge railing is an old style steel design which is not crash tested. It is exhibiting spotted corrosion on the steel and minor cracks and spalls on the concrete posts. The brush block portion of the barrier is spalled, scaled, and map cracked. The railing should be replaced to prevent deterioration that could become a safety issue. The beams should be painted to preserve them from deterioration.

The existing HMA approaches have alligator, longitudinal, and transverse cracking throughout. The approaches should be replaced to ensure that the



end of the bridge is protected. A smooth approach/bridge transition reduces impact on the superstructure and protects the abutments from erosion. If left alone the increase in impact can cause the deck to crack and deteriorate from water infiltration which will speed the deterioration of the entire structure.

Often preventative maintenance work is small in nature and bid prices are higher than average. Combining multiple bridges, with the same or similar fixes, in the same general area with similar repair can help reduce bid prices slightly. Byron Road over Shiawassee River, Byron Road over Stoner Creek, and Oak Grove Rd over Shiawassee River are structures that have similar preventative maintenance needs and are within 1 mile of each other making them perfect candidates to pair together.

This structure is posted due to H-15 design of the substructure. There currently is minimal distress noted in the substructure as well as the steel beams. The bridge is functioning well for its intended purpose with the local needs. It is therefore a fiscally responsible approach to preserve the superstructure elements as long as possible.

**D. If there is a current detour, what does it affect?**

Currently the bridge is open to traffic and there is no detour.

**E. If the structure were to be closed, what would the detour affect?**

If the structure were to be closed, the detour would affect the residents and farmers in the area. Emergency services would have to detour around the Byron Road over Shiawassee River bridge, resulting in increased response times. As every second matters in an emergency, this could become a public safety issue. The school system, with its already tight budget, will have cost increases because of the need to reroute its busses.

**F. The structure is not currently closed.**

**G. Maintenance of the Structure**

No maintenance has been done on this structure.

**5. Estimated Rehabilitation Costs**

<u>Shallow Overlay and Bridge Railing Replacement</u>	
A. Approach Construction	\$ 142,000.00
B. Structure Construction	\$ 338,000.00
Total (A & B)	\$ 480,000.00

For a breakdown of Construction costs, see Appendix A.

## **6. Priority List**

1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation - Superstructure Replacement)
2. Fowlerville Rd over Red Cedar River (Rehabilitation - Superstructure Replacement)
3. Milett Rd over Red Cedar River (Bridge Replacement)
4. **Multiple PM**
  1. **Byron Rd over Stoner Creek**
  2. **Byron Rd over Shiawassee River**
  3. **Oak Grove Rd over Shiawassee River**

## **7. Resolution**

The resolution is attached in Appendix B.

## **8. Previous Applications**

It is understood that all previous applications have been discarded and that this application will be used to select funding.

## **APPENDIX A**

Exhibit 4 - Cost Estimating Worksheet

2024

BRIDGE COST ESTIMATE WORKSHEET  
- CPM, REHAB, REPLACE -

REV. 02/6/2024

OWNER: Livingston County	FISCAL YEAR: 2027	Out to Out	Curb to Curb	DATE: 3/6/2024
REGION: University		LENGTH 45.0	WIDTH 29.2	ENGINEER: KSO
TSC: Brighton	PR: #N/A MP: #N/A		WIDTH 24.0	STRUCTURE ID: 5853
	LOCATION: BYRON ROAD over SHIAWASSEE RIVER			BRIDGE ID: N/A
PRIMARY WORK ACTIVITY: Overlay - Deep		DECK AREA: 1,314	SFT	STR. TYPE: Steel
OTHER WORK: Approach Paving, barrier replacement		CLEAR ROADWAY: 1,080	SFT	Multi-Stringer, W or I-Bear

WORK ACTIVITY	MDOT Bridge Design Guides	QUANTITY	UNIT	UNIT COST	TOTAL
<b>NEW BRIDGE</b> (increase deck area based on design standards and hydraulic requirements)					
Single or Multiple Spans, Grade Separation	(add demo, approach, MOT)		SFT	\$435.00/SFT	
Single Span, Over Water	Length < 100ft (add demo, approach, MOT)		SFT	\$525.00/SFT	
Multiple Spans, Over Water	Length > 100ft (add demo, approach, MOT)		SFT	\$470.00/SFT	
Precast Culvert	Length < 40ft (add demo, approach, MOT)		SFT	\$565.00/SFT	
<b>NEW SUPERSTRUCTURE</b>					
New Superstructure, Grade Separation	(incl. remove exist deck/super; add MOT & approach)		SFT	\$310.00/SFT	
New Superstructure, Over Water	(incl. remove exist deck/super; add MOT & approach)		SFT	\$315.00/SFT	
<b>WIDENING</b>					
Structure Widening, ft	(incl. deck/super/sub widening, add approach transition)		SFT	\$630.00/SFT	
<b>NEW DECK</b>					
New Bridge Deck & Barrier	(incl. remove exist deck/railing, add approach, MOT)		SFT	\$150.00/SFT	
<b>DEMOLITION</b>					
Entire Structure, Grade Separation			SFT	\$75.00/SFT	
Entire Structure, Over Water			SFT	\$95.00/SFT	
<b>DECK REPAIR / TREATMENTS</b>					
Bridge Railing Replacement	(incl. removal and replacement)	90.0	FT	\$750.00/FT	\$67,500.00
Concrete Brush Block / Curb Patch	(incl. hand chipping and formwork)		FT	\$29.00/FT	
Concrete Barrier Patch	(incl. hand chipping and formwork)		SFT	\$85.00/SFT	
Concrete Deck Patch	(incl. hand chipping)	100.0	SFT	\$68.00/SFT	\$6,800.00
Deep Overlay	(incl. joint repl & hydro)	1,314.0	SFT	\$46.00/SFT	\$60,444.00
Epoxy Overlay	(incl. warranty)		SYD	\$48.00/SYD	
Expansion Joint Gland Replacement	(remove and replace elastomeric gland)		FT	\$125.00/FT	
Expansion Joint Replacement	(incl. removal)		FT	\$860.00/FT	
Full Depth Patch			SFT	\$140.00/SFT	
Healer / Sealer	(penetrates cracks in bridge deck)		SYD	\$30.00/SYD	
HMA Overlay with WP membrane			SYD	\$60.00/SYD	
Overlay Removal	(Epoxy: \$22/syd   Latex: \$26/syd   HMA: \$7/syd)		SYD	\$22.00/SYD	
Reseal Bridge Joints			FT	\$28.00/FT	
Shallow Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
<b>SUPERSTRUCTURE REPAIR</b>					
Bearing Realignment / Replacement	(incl. temporary supports)		EA	\$6,450.00/EA	
Heat Straightening	(incl. clean and coat)		EA	\$57,000.00/EA	
Pack Rust Repair	(greater than 3/8" separation)		FT	\$1,150.00/FT	
Paint - Complete	(incl. clean & coat)	2,101.1	SFT	\$45.00/SFT	\$94,547.25
Paint - Partial / Spot / Zone	(incl. clean & coat - \$20k minimum)		SFT	\$120.00/SFT	
PCI Beam End Blockout	(incl. temporary supports)		EA	\$7,200.00/EA	
Pin & Hanger Replacement	(incl. temporary supports)		EA	\$17,000.00/EA	
Structural Steel Repair	(based on 6ft repair length)		EA	\$4,000.00/EA	
Structural Steel Repair - Stiffener	(includes each side of beam)		EA	\$1,500.00/EA	
<b>SUBSTRUCTURE REPAIR</b>					
Substructure Patching	(measured x 2) replace if repair area > 30%		CFT	\$360.00/CFT	
Substructure Replacement	(incl. temporary supports, excavation)		CFT	\$375.00/CFT	
Substructure Horizontal Surface Sealer			SYD	\$75.00/SYD	
Temporary Supports	(add Structural Steel Repair - Stiffener for ea steel beam)		EA	\$4,000.00/EA	
<b>MISCELLANEOUS</b>					
Articulating Concrete Block System (ACB)			SYD	\$320.00/SYD	
Concrete Surface Coating			SYD	\$47.00/SYD	
Culvert Cleanout			FT	\$125.00/FT	
Epoxy Crack Injection	(structural crack repair)		FT	\$70.00/FT	
Metal Mesh Panels	(48" width, max 6'-6" length)		SFT	\$28.00/SFT	
Pressure Relief Joint	(use when approach concrete roadway exceeds 1,000ft)		FT	\$110.00/FT	
Riprap	(assume 10ft distance around perimeter of substructure)		SYD	\$275.00/SYD	
Silane Treatment	(penetrating sealer for concrete surfaces)		SFT	\$7.00/SFT	
Slope Protection Repairs			SYD	\$150.00/SYD	
Other	Scour Countermeasures		LSUM	\$75,000.00/LSUM	

**STRUCTURE CONSTRUCTION BUDGET \$229,291**

<b>ROAD WORK</b>					
Approach Pavement, 12" RC	(incl. removal; add curb, gutter, guardrail) 40' ea. end		SYD	\$230.00/SYD	
Approach Curb & Gutter	(incl. removal) 40' ea. quadrant		FT	\$57.00/FT	
Guardrail Anchorage to Bridge	(each quadrant)	4.0	EA	\$2,540.00/EA	\$10,160.00
Guardrail	(incl. removal) < 200ft beyond reference line		FT	\$41.00/FT	
Guardrail Terminal	(each quadrant)	4.0	EA	\$3,900.00/EA	\$15,600.00
Roadway Approach Work	(beyond approach pavement)		LSUM	LSUM	
HMA Removal Approach		344.4	SYD	\$8.00/SYD	\$2,755.56
HMA Approach Pavement		3,100.0	SFT	\$12.00/SFT	\$37,200.00
Utilities			LSUM	LSUM	

<b>TRAFFIC CONTROL</b> <i>Unit Cost to be determined by Region or TSC Traffic &amp; Safety</i>					
Part Width Construction			LSUM	LSUM	
Crossovers			EA	/EA	
Temporary Traffic Signals			set	/set	
RR Flagging			LSUM	LSUM	
Detour		1.0	LSUM	\$30,000.00/LSUM	\$30,000.00

**RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET \$95,716**

<b>CONTINGENCY</b>	(10% - 20%) (use higher contingency for small projects)	20	%	\$325,000.00	\$65,000
<b>MOBILIZATION</b>	(estimate at 10%)	10	%	\$390,000.00	\$39,000
<b>INFLATION</b>	(assume 4% per year, beginning in 2025)	12	%	\$429,000.00	\$51,000

(Does not include PE or CE)

**TOTAL CONSTRUCTION BUDGET \$480,000**

## **APPENDIX B**

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5837

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b> OAK GROVE ROAD	<b>Latitude / Longitude</b> 42.7262 / -83.9488	<b>MDOT Structure ID</b> 47200045000B010	<b>Structure Condition</b> Good Condition(7)
<b>Feature</b> SHIAWASSEE RIVER	<b>Length / Width / Spans</b> 73.8 / 44.2 / 1	<b>Owner</b> County: Livingston(47)	
<b>Location</b> SEC 23 COHOCTAH TWP	<b>Built / Recon. / Paint / Ovly.</b> 1993 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> A Open, no restriction(A)
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/25/2022 / CRE1	<b>Scour Evaluation</b> 5 Stable w/in footing



NBI INSPECTION

CRE1

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	08/25/2022

GENERAL NOTES

DECK

08/18 08/20 08/22

	08/18	08/20	08/22	
<b>1. Surface (SIA-58A)</b>	7	7	7	Longitudinal cracks between beams. Gravel along face of barrier. (08/22) Longitudinal cracks between beams. Gravel along face of barrier. (08/20) Longitudinal cracks between beams. Gravel along face of barrier. (08/18)
<b>2. Expansion Joints</b>	5	5	4	Approach pavement has settled 1/2" in NE quadrant. 80% loss of adhesion for HPJS. Vegetation growth at both ends. (08/22) Rubber joint filler is cracking, pulling away and loss of adhesion. Approach pavement has settled 1/2" in NE quadrant. (08/20) Rubber joint filler is cracking, pulling away and loss of adhesion. Approach pavement has settled 1/2" in NE quadrant. (08/18)
<b>3. Other Joints</b>	N	N	N	(08/22) (08/20) (08/18)
<b>4. Railings</b>	7	7	7	Few hairline vertical cracks. Few small popouts. Cracking at end of barrier in SW quad. (08/22) Few hairline vertical cracks. Few small popouts. Cracking at end of barrier in SW quad. (08/20) Few hairline vertical cracks. Few small popouts. Cracking at end of barrier in SW quad. (08/18)
<b>5. Sidewalks or Curbs</b>	N	N	N	(08/22) (08/20) (08/18)
<b>6. Deck Bottom Surface (SIA-58B)</b>	N	N	N	No signs of leakage between beams. Side by side box beams. Bottom of deck not visible (08/22) No signs of leakage between beams. Side by side box beams. Bottom of deck not visible (08/20) No signs of leakage between beams. Side by side box beams. Bottom of deck not visible (08/18)
<b>7. Deck (SIA-58)</b>	7	7	7	Longitudinal cracks between beams. Gravel along face of barrier. No signs of leakage between beams. Side by side boxbeams. Bottom of deck not visible (08/22) Longitudinal cracks between beams. Gravel along face of barrier. No signs of leakage between beams. Side by side boxbeams. Bottom of deck not visible (08/20) Longitudinal cracks between beams. Gravel along face of barrier. No signs of leakage between beams. Side by side boxbeams. Bottom of deck not visible (08/18)
<b>8. Drainage</b>				Sand and gravel along edges with some vegetation. Bridge is near low point in road. (08/22) Sand and gravel along edges with some vegetation. Bridge is near low point in road. (08/20) Sand and gravel along edges with some vegetation. Bridge is near low point in road. (08/18)


SUPERSTRUCTURE

08/18 08/20 08/22

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5837

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b> OAK GROVE ROAD	<b>Latitude / Longitude</b> 42.7262 / -83.9488	<b>MDOT Structure ID</b> 47200045000B010	<b>Structure Condition</b> Good Condition(7)	
<b>Feature</b> SHIAWASSEE RIVER	<b>Length / Width / Spans</b> 73.8 / 44.2 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 23 COHOCTAH TWP	<b>Built / Recon. / Paint / Ovly.</b> 1993 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> A Open, no restriction(A)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/25/2022 / CRE1	<b>Scour Evaluation</b> 5 Stable w/in footing	

<b>9. Stringer (SIA-59)</b>	7	7	7	Shear reinforcement (transverse steel) visible in many beams on the bottom flanges. Steel is rusted but concrete not spalled to more than just at bar. Joints in good condition with no signs of leakage. NW fascia beam has small spall with cracking. Steel visible in the web of the beam in the SW quad. Chipped beam at west fascia near north end. (08/22) Shear reinforcement (transverse steel) visible in many beams on the bottom flanges. Steel is rusted but concrete not spalled to more than just at bar. Joints in good condition with no signs of leakage. NW fascia beam has small spall with cracking. Steel visible in the web of the beam in the SW quad. (08/20) Shear reinforcement (transverse steel) visible in many beams on the bottom flanges. Steel is rusted but concrete not spalled to more than just at bar. Joints in good condition with no signs of leakage. NW fascia beam has small spall with cracking. Steel visible in the web of the beam in the SW quad. (08/18)
<b>10. Paint (SIA-59A)</b>	N	N	N	(08/22) (08/20) (08/18)
<b>11. Section Loss</b>	N	N	N	(08/22) (08/20) (08/18)
<b>12. Bearings</b>	8	8	8	No problems noted with elastomeric bearings. (08/22) No problems noted with elastomeric bearings. (08/20) No problems noted with elastomeric bearings. (08/18)

**SUBSTRUCTURE**

	08/18	08/20	08/22	
<b>13. Abutments (SIA-60)</b>	8	8	8	No cracks or spalls. (08/22) No cracks or spalls. (08/20) No cracks or spalls. (08/18)
<b>14. Piers (SIA-60)</b>	N	N	N	(08/22) (08/20) (08/18)
<b>15. Slope Protection</b>	N	N	N	riprap banks stable. (08/22) (08/20) (08/18)
<b>16. Channel (SIA-61)</b>	6	6	6	Banks are stable. Channel flows from west to east. (08/22) Banks are stable. Channel flows from west to east. (08/20) Banks are stable. Channel flows from west to east. (08/18)
<b>17. Scour Inspection</b>	7	7	7	No scour evident. Heavy riprap on slopes, but thins out near river. (08/22) No scour evident. Heavy riprap on slopes, but thins out near river. (08/20) No scour evident. Heavy riprap on slopes, but thins out near river. (08/18)

**APPROACH**

	08/18	08/20	08/22	
<b>18. Approach Pavement</b>	7	7	6	Concrete pavement in good condition. Bit has settled and is breaking up at butt joint. 1/2" settlement at both ends. NE guardrail is scraped at barrier. Minor surface rust on some of the guardrail bolts. Some corner spalling at edges. (08/22) Concrete pavement in good condition. Bit has settled and is breaking up at butt joint. 1/2" settlement at both ends. NE guardrail is scraped at barrier. Minor surface rust on some of the guardrail bolts. (08/20) Concrete pavement in good condition. Bit has settled and is breaking up at butt joint. 1/2" settlement at both ends. NE guardrail is scraped at barrier. Minor surface rust on some of the guardrail bolts. (08/18)

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5837

BRIDGE SAFETY INSPECTION REPORT

<b>Facility</b> OAK GROVE ROAD	<b>Latitude / Longitude</b> 42.7262 / -83.9488	<b>MDOT Structure ID</b> 47200045000B010	<b>Structure Condition</b> Good Condition(7)
<b>Feature</b> SHIAWASSEE RIVER	<b>Length / Width / Spans</b> 73.8 / 44.2 / 1	<b>Owner</b> County: Livingston(47)	
<b>Location</b> SEC 23 COHOCTAH TWP	<b>Built / Recon. / Paint / Ovly.</b> 1993 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> A Open, no restriction(A)
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/25/2022 / CRE1	<b>Scour Evaluation</b> 5 Stable w/in footing



<b>19. Approach Shoulders Sidewalks</b>	7	7	6	Concrete approach shoulders integral with conc approach pavement. Tapered bit to gravel. Crack in HMA. Settlement approximately 1/2" in NE quad. (08/22) Concrete approach shoulders integral with conc approach pavement. Tapered bit to gravel. Crack in HMA. (08/20) Concrete approach shoulders integral with conc approach pavement. Tapered bit to gravel. Crack in HMA. (08/18)
<b>20. Approach Slopes</b>				Well vegetated. (08/22) Well vegetated. (08/20) Well vegetated. (08/18)
<b>21. Utilities</b>				Ameritech marker in NE quad. OH 15' east and 30' west. (08/22) Ameritech marker in NE quad. OH 15' east and 30' west. (08/20) Ameritech marker in NE quad. OH 15' east and 30' west. (08/18)
<b>22. Drainage Culverts</b>				(08/22) (08/20) (08/18)

MISCELLANEOUS

Guard Rail

Item	Rating
36A. Bridge Railings	1
36B. Transitions	1
36C. Approach Guardrail	1
36D. Approach Guardrail Ends	0

Other Items

Item	Rating
71. Water Adequacy	9
72. Approach Alignment	8
Temporary Support	0 No Temporary Supports
High Load Hit (M)	No
Special Insp. Equipment	2
Underwater Insp. Method	1

False Decking (Timber) Removed to Complete Inspection

N/A - No False Decking

Critical Feature Inspections (SIA-92)


	Freq	Date
92A. Fracture Critical		
92B. Underwater		
92C. Other Special		
92D. Fatigue Sensitive		



MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 5837

STRUCTURE INVENTORY AND APPRAISAL

<b>Facility</b> OAK GROVE ROAD	<b>Latitude / Longitude</b> 42.7262 / -83.9488	<b>MDOT Structure ID</b> 47200045000B010	<b>Structure Condition</b> Good Condition(7)	
<b>Feature</b> SHIAWASSEE RIVER	<b>Length / Width / Spans</b> 73.8 / 44.2 / 1	<b>Owner</b> County: Livingston(47)		
<b>Location</b> SEC 23 COHOCTAH TWP	<b>Built / Recon. / Paint / Ovly.</b> 1993 / / /	<b>TSC</b> Brighton(3)	<b>Operational Status</b> A Open, no restriction(A)	
<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/25/2022 / CRE1	<b>Scour Evaluation</b> 5 Stable w/in footing	

Bridge History, Type, Materials	
27 - Year Built	1993
106 - Year Reconstructed	
202 - Year Painted	
203 - Year Overlay	
43 - Main Span Bridge Type	5 05
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	0
79 - Rail Type	6
80 - Post Type	0
107 - Deck Type	1
108A - Wearing Surface	1
108B - Membrane	0
108C - Deck Protection	1

Structure Dimensions	
34 - Skew	0
35 - Struct Flared	0
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	69.9
49 - Structure Length	73.8
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	42
52 - Width Out to Out	44.2
112 - NBIS Length	Y

Inspection Data	
90 - Inspection Date	08/25/2022
91 - Inspection Freq	24
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	7
58A/B - Deck Surface/Bottom	7 N
59 - Superstructure Rating	7
59A - Paint Rating	N
60 - Substructure Rating	8
61 - Channel Rating	6
62 - Culvert Rating	N

Navigation Data	
38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brgd Vert Clear	

Route Carried By Structure(ON Record)	
5A - Record Type	1
5B - Route Signing	4
5C - Level of Service	0
5D - Route Number	04747
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000041030 78
19 - Detour Length	7
20 - Toll Facility	3
26 - Functional Class	07
28A - Lanes On	2
29 - ADT	3050
30 - Year of ADT	2015
32 - Appr Roadway Width	40
32A/B - Ap Pvt Type/Width	4 39.99
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	41.3
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	0
110 - Truck Network	0
114 - Future ADT	3400
115 - Year Future ADT	2035
Freeway	0

Structure Appraisal	
36A - Bridge Railing	1
36B - Rail Transition	1
36C - Approach Rail	1
36D - Rail Termination	0
67 - Structure Evaluation	7
68 - Deck Geometry	6
69 - Underclearance	N
71 - Waterway Adequacy	9
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	5

Miscellaneous	
37 - Historical Significance	4
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	

Route Under Structure (UNDER Record)	
5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	


Proposed Improvements	
75 - Type of Work	
76 - Length of Improvement	
94 - Bridge Cost	
95 - Roadway Cost	
96 - Total Cost	
97 - Year of Cost Estimate	

Load Rating and Posting	
31 - Design Load	5
41 - Open, Posted, Closed	A
63 - Fed Oper Rtg Method	1
64F - Fed Oper Rtg Load	68.7
64MA - Mich Oper Rtg Method	
64MB - Mich Oper Rtg	84.04
64MC - Mich Oper Truck	
65 - Inv Rtg Method	1
66 - Inventory Load	39.1
70 - Posting	5
141 - Posted Loading	
193 - Overload Class	

MICHIGAN DEPARTMENT OF TRANSPORTATION

**STR 5837**

**WORK RECOMMENDATIONS**

<b>Facility</b> OAK GROVE ROAD	<b>Latitude / Longitude</b> 42.7262 / -83.9488	<b>MDOT Structure ID</b> 47200045000B010	<b>Structure Condition</b> Good Condition(7)	
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<b>Region / County</b> University(6) / Livingston(47)	<b>Material / Design</b> 5 Prestressed Concrete / 05 Box Bm/Gird- Multiple	<b>Last NBI Inspection</b> 08/25/2022 / CRE1	<b>Scour Evaluation</b> 5 Stable w/in footing	

**WORK RECOMMENDATIONS**

**CRE1**

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	08/25/2022

**RECOMMENDATIONS & ACTION ITEMS**

Recommendation Type	Priority	Description
Joint Repair	L	Reseal joints at reference lines.
Super Repair	L	Seal cracks in deck surface; healer-sealer or epoxy overlay.

**2a. Situation Map**

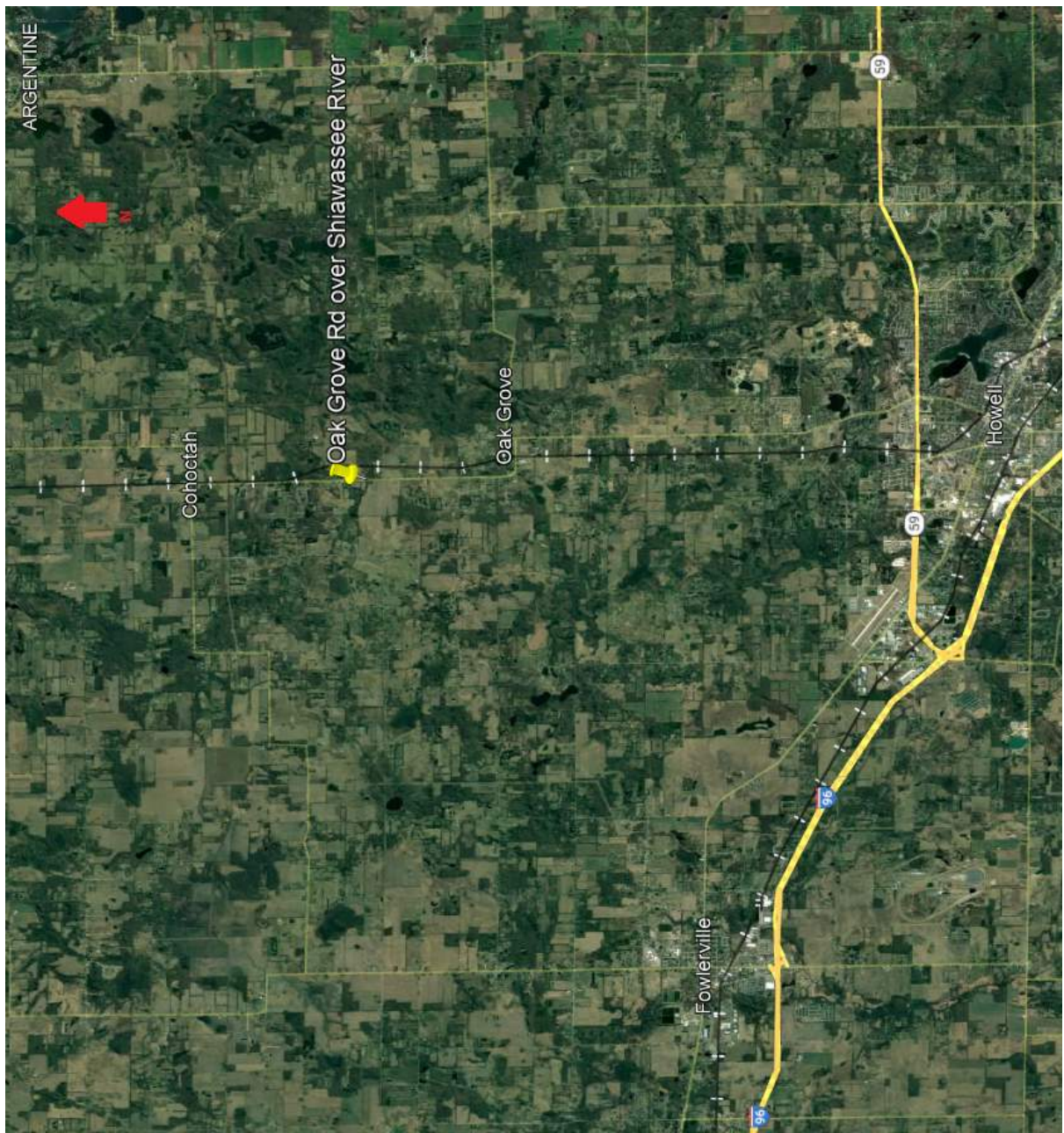
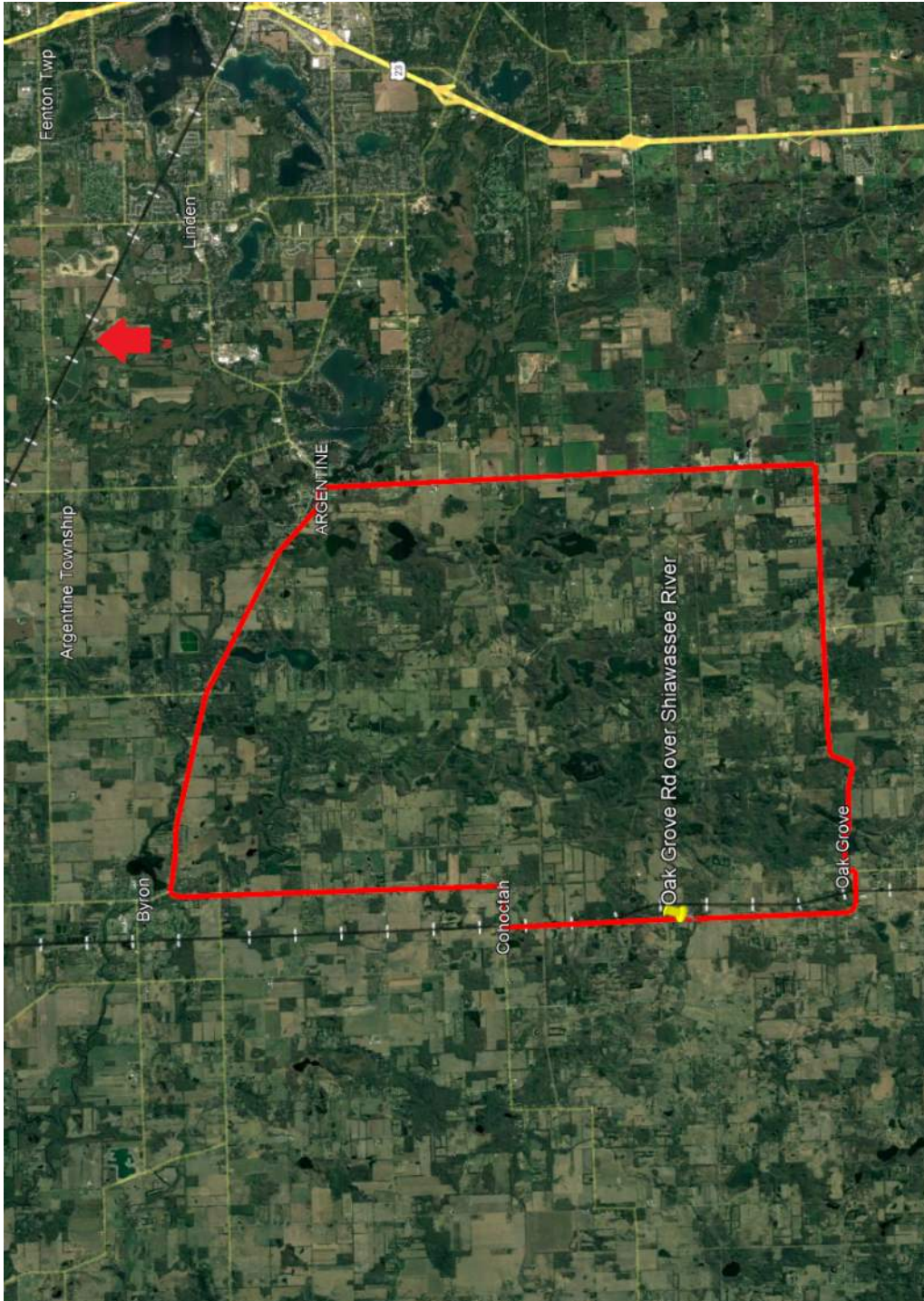


Image from Google Earth

## 2b. Detour Map



Oak Grove to Cohoctah  
To Byron  
To Silver Lake  
To Argentine  
To Fausset  
To Oak Grove

Detour Length: 25.8 Miles

Image from Google Earth

### 3. Photographs



Typical Approach



Settlement at Reference Line



Deck Surface



Typical Abutment



Fascia Showing Water Staining from Over Fascia Drainage

#### **4. Application Requirements for Oak Grove Road over Shiawassee River**

##### **A. Local Agency Contact Person**

Steve Wasylik, PE  
Managing Director  
(517) 546-4250

##### **B. The purpose of this application is for the preventative maintenance of the bridge carrying Oak Grove Road over Shiawassee River. Funding requested for epoxy overlay, and railing revision.**

##### **C. Economic Importance of the Structure**

This structure is located approximately 7.5 miles north of the City of Howell. Oak Grove is a north/south roadway classified as a major collector that serves local residences and farms in the area and is the main road between the City of Howell and the village of Byron.

Although there are no schools in the immediate area of the bridge, Oak Grove Road is utilized by the school district for bussing purposes. If bus traffic is not able to cross the bridge it will put a financial burden on the already tight school budgets because of increased length of bus routes. Emergency vehicles would also be impacted by the closing or reduced load capacity as well, increasing response times. Oak Grove Road is the main road between Byron and Howell. Closure of the bridge would result in traffic having to travel on local dirt roads, which cannot handle the increased traffic and would deteriorate in condition quickly.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: [Livingston County Asset Management Plan](#)

The existing bridge is a adjacent prestressed concrete box beam structure with a 74' span. It is overall in good condition and rated a 7. The concrete deck surface has longitudinal cracks and is in good condition and rate a 7. An epoxy overlay is recommended to seal all cracks in the surface to preserve the condition of the beams and deck. The existing railings are in good condition and rated a 7. However, they are the older style of parapet railing which allows water to drain over the fascia. It has been found that this type of drainage results in increased deterioration and a shorter life span of the fascia beams. These railings could be revised and have concrete placed between the posts which would prevent water from flowing over the fascia and causing deterioration.

Often preventative maintenance work is small in nature and bid prices are higher than average. Combining multiple bridges, with the same or similar fixes, in the same general area can help reduce bid prices slightly. Byron



Road over Shiawassee River, Byron Road over Stoner Creek, and Oak Grove Rd over Shiawassee River are structures that have similar preventative maintenance needs and are within 1 mile of each other making them perfect candidates to pair together.

**D. If there is a current detour, what does it affect?**

Currently the bridge is open to traffic and there is no detour.

**E. If the structure were to be closed, what would the detour affect?**

If the structure were to be closed, the detour would affect the residents in the area. Emergency services would have to detour around the Oak Grove Road over Shiawassee River bridge, resulting in increased response times. As every second matters in an emergency, this could become a public safety issue. The school system, with its already tight budget, will have cost increases because of the need to reroute its busses.

**F. The structure is not currently closed.**

**G. Maintenance of the Structure**

No maintenance has been done on this structure.

**5. Estimated Rehabilitation Costs**

<u>Epoxy Overlay, Railing Revision, and Approach Replacement</u>	
A. Approach Construction	\$ 44,000.00
B. Structure Construction	\$ 46,000.00
Total (A & B)	\$ 90,000.00

For a breakdown of Construction costs, see Appendix A.

**6. Priority List**

1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation - Superstructure Replacement)
2. Fowlerville Rd over Red Cedar River (Rehabilitation - Superstructure Replacement)
3. Milett Rd over Red Cedar River (Bridge Replacement)
4. **Multiple PM**
  1. **Byron Rd over Stoner Creek**
  2. **Byron Rd over Shiawassee River**
  3. **Oak Grove Rd over Shiawassee River**

## **7. Resolution**

The resolution is attached in Appendix B.

## **8. Previous Applications**

It is understood that all previous applications have been discarded and that this application will be used to select funding.

## **APPENDIX A**

Exhibit 4 - Cost Estimating Worksheet

2024

BRIDGE COST ESTIMATE WORKSHEET  
- CPM, REHAB, REPLACE -

REV. 02/8/2024

OWNER: Livingston County	FISCAL YEAR: 2027	Out to Out	Curb to Curb	DATE: 3/8/2024
REGION: University		LENGTH 73.8	WIDTH 44.2	ENGINEER: KSO
TSC: Brighton	PR: #N/A MP: #N/A		WIDTH 42.0	STRUCTURE ID: 5837
	LOCATION: OAK GROVE ROAD over SHIAWASSEE RIVER			BRIDGE ID: N/A
PRIMARY WORK ACTIVITY: Overlay - Epoxy		DECK AREA: 3,262	SFT	STR. TYPE: Prestressed Concrete
OTHER WORK: Railing Revision,		CLEAR ROADWAY: 3,100	SFT	Box Beam or Girders - Mu

WORK ACTIVITY	MDOT Bridge Design Guides	QUANTITY	UNIT	UNIT COST	TOTAL
<b>NEW BRIDGE</b> (increase deck area based on design standards and hydraulic requirements)					
Single or Multiple Spans, Grade Separation	(add demo, approach, MOT)		SFT	\$435.00/SFT	
Single Span, Over Water	Length < 100ft (add demo, approach, MOT)		SFT	\$525.00/SFT	
Multiple Spans, Over Water	Length > 100ft (add demo, approach, MOT)		SFT	\$470.00/SFT	
Precast Culvert	Length < 40ft (add demo, approach, MOT)		SFT	\$565.00/SFT	
<b>NEW SUPERSTRUCTURE</b>					
New Superstructure, Grade Separation	(incl. remove exist deck/super; add MOT & approach)		SFT	\$310.00/SFT	
New Superstructure, Over Water	(incl. remove exist deck/super; add MOT & approach)		SFT	\$315.00/SFT	
<b>WIDENING</b>					
Structure Widening, ft	(incl. deck/super/sub widening, add approach transition)		SFT	\$630.00/SFT	
<b>NEW DECK</b>					
New Bridge Deck & Barrier	(incl. remove exist deck/railing, add approach, MOT)		SFT	\$150.00/SFT	
<b>DEMOLITION</b>					
Entire Structure, Grade Separation			SFT	\$75.00/SFT	
Entire Structure, Over Water			SFT	\$95.00/SFT	
<b>DECK REPAIR / TREATMENTS</b>					
Bridge Railing Replacement	(incl. removal and replacement)		FT	\$750.00/FT	
Concrete Brush Block / Curb Patch	(incl. hand chipping and formwork)		FT	\$29.00/FT	
Concrete Barrier Patch	(incl. hand chipping and formwork)		SFT	\$85.00/SFT	
Concrete Deck Patch	(incl. hand chipping)		SFT	\$68.00/SFT	
Deep Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
Epoxy Overlay	(incl. warranty)	344.4	SYD	\$48.00/SYD	\$16,531.20
Expansion Joint Gland Replacement	(remove and replace elastomeric gland)		FT	\$125.00/FT	
Expansion Joint Replacement	(incl. removal)		FT	\$860.00/FT	
Full Depth Patch			SFT	\$140.00/SFT	
Healer / Sealer	(penetrates cracks in bridge deck)		SYD	\$30.00/SYD	
HMA Overlay with WP membrane			SYD	\$60.00/SYD	
Overlay Removal	(Epoxy: \$22/syd   Latex: \$26/syd   HMA: \$7/syd)		SYD	\$22.00/SYD	
Reseal Bridge Joints		86.0	FT	\$28.00/FT	\$2,408.00
Shallow Overlay	(incl. joint repl & hydro)		SFT	\$46.00/SFT	
Railing Revision	(new concrete to revise over the fascia drainage)	147.6	FT	\$80.00/FT	\$11,808.00
<b>SUPERSTRUCTURE REPAIR</b>					
Bearing Realignment / Replacement	(incl. temporary supports)		EA	\$6,450.00/EA	
Heat Straightening	(incl. clean and coat)		EA	\$57,000.00/EA	
Pack Rust Repair	(greater than 3/8" separation)		FT	\$1,150.00/FT	
Paint - Complete	(incl. clean & coat)		SFT	\$30.00/SFT	
Paint - Partial / Spot / Zone	(incl. clean & coat - \$20k minimum)		SFT	\$60.00/SFT	
PCI Beam End Blockout	(incl. temporary supports)		EA	\$7,200.00/EA	
Pin & Hanger Replacement	(incl. temporary supports)		EA	\$17,000.00/EA	
Structural Steel Repair	(based on 6ft repair length)		EA	\$4,000.00/EA	
Structural Steel Repair - Stiffener	(includes each side of beam)		EA	\$1,500.00/EA	
<b>SUBSTRUCTURE REPAIR</b>					
Substructure Patching	(measured x 2) replace if repair area > 30%		CFT	\$360.00/CFT	
Substructure Replacement	(incl. temporary supports, excavation)		CFT	\$375.00/CFT	
Substructure Horizontal Surface Sealer			SYD	\$75.00/SYD	
Temporary Supports	(add Structural Steel Repair - Stiffener for ea steel beam)		EA	\$4,000.00/EA	
<b>MISCELLANEOUS</b>					
Articulating Concrete Block System (ACB)			SYD	\$320.00/SYD	
Concrete Surface Coating			SYD	\$47.00/SYD	
Culvert Cleanout			FT	\$125.00/FT	
Epoxy Crack Injection	(structural crack repair)		FT	\$70.00/FT	
Metal Mesh Panels	(48" width, max 6'-6" length)		SFT	\$28.00/SFT	
Pressure Relief Joint	(use when approach concrete roadway exceeds 1,000ft)		FT	\$110.00/FT	
Riprap	(assume 10ft distance around perimeter of substructure)		SYD	\$275.00/SYD	
Silane Treatment	(penetrating sealer for concrete surfaces)		SFT	\$7.00/SFT	
Slope Protection Repairs			SYD	\$150.00/SYD	
Other					

**STRUCTURE CONSTRUCTION BUDGET \$30,747**

<b>ROAD WORK</b>					
Approach Pavement, 12" RC	(incl. removal; add curb, gutter, guardrail) 20' ea. end		SYD	\$230.00/SYD	
Approach Curb & Gutter	(incl. removal) 20' ea. quadrant		FT	\$57.00/FT	
Guardrail Anchorage to Bridge	(each quadrant)		EA	\$2,540.00/EA	
Guardrail	(incl. removal) < 200ft beyond reference line		FT	\$41.00/FT	
Guardrail Terminal	(each quadrant)		EA	\$3,900.00/EA	
Roadway Approach Work	(beyond approach pavement)		LSUM		LSUM
Utilities			LSUM		LSUM
<b>TRAFFIC CONTROL</b> <i>Unit Cost to be determined by Region or TSC Traffic &amp; Safety</i>					
Part Width Construction			LSUM		LSUM
Crossovers			EA	/EA	
Temporary Traffic Signals			set	/set	
RR Flagging			LSUM		LSUM
Detour		1.0	LSUM	\$30,000.00/LSUM	\$30,000.00

**RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET \$30,000**

<b>CONTINGENCY</b>	(10% - 20%) (use higher contingency for small projects)	20	%	\$61,000.00	\$12,000
<b>MOBILIZATION</b>	(estimate at 10%)	10	%	\$73,000.00	\$7,000
<b>INFLATION</b>	(assume 4% per year, beginning in 2025)	12	%	\$80,000.00	\$10,000

(Does not include PE or CE)

**TOTAL CONSTRUCTION BUDGET \$90,000**

## **APPENDIX B**

**RESOLUTION OF THE**

**NUMBER:**

**2403-022**

**BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON**

**DATE:**

**March 14, 2024**

---

**Resolution for Participation in the Rehabilitation of the Mason Road Bridge Over the Red Cedar River Imp. Drain in Section 3 of Iosco Township**

- WHEREAS,** the Board of County Road Commissioners of the County of Livingston wishes to submit Local Bridge Program Applications, and
- WHEREAS,** the Board wishes to actively seek participation in the replacement and/or repair of those bridges, and
- WHEREAS,** the Board has reviewed staff recommendations to establish priorities for funding, now therefore be it
- RESOLVED,** that the Board of County Road Commissioners of the County of Livingston does hereby apply for participation in the rehabilitation of the Mason Road Bridge over the Red Cedar River Imp. Drain in Section 3 of Iosco Township (Structure #5814), and be it further
- RESOLVED,** that the Mason Road Bridge is made the number 1 priority for funding, and be it further
- RESOLVED,** that staff is authorized to submit the application to the Michigan Department of Transportation and undertake any actions necessary to implement this resolution.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasyk, Managing Director

RESOLUTION OF THE

NUMBER:

2403-023

BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON

DATE:

March 14, 2024

---

Resolution for Participation in the Rehabilitation of the Fowlerville Road Bridge Over the Red Cedar River in Sections 22 and 23 of Handy Township

- WHEREAS,** the Board of County Road Commissioners of the County of Livingston wishes to submit Local Bridge Program Applications, and
- WHEREAS,** the Board wishes to actively seek participation in the replacement and/or repair of those bridges, and
- WHEREAS,** the Board has reviewed staff recommendations to establish priorities for funding, now therefore be it
- RESOLVED,** that the Board of County Road Commissioners of the County of Livingston does hereby apply for participation in the rehabilitation of the Fowlerville Road Bridge over the Red Cedar River in Sections 22 and 23 of Handy Township (Structure #5831), and be it further
- RESOLVED,** that the Fowlerville Road Bridge is made the number 2 priority for funding, and be it further
- RESOLVED,** that staff is authorized to submit the application to the Michigan Department of Transportation and undertake any actions necessary to implement this resolution.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasylk, Managing Director

RESOLUTION OF THE

NUMBER:

2403-024

BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON

DATE:

March 14, 2024

---

Resolution for Participation in the Replacement of the Milett Road Bridge Over the Red Cedar River in Section 30 of Howell Township

- WHEREAS,** the Board of County Road Commissioners of the County of Livingston wishes to submit Local Bridge Program Applications, and
- WHEREAS,** the Board wishes to actively seek participation in the replacement and/or repair of those bridges, and
- WHEREAS,** the Board has reviewed staff recommendations to establish priorities for funding, now therefore be it
- RESOLVED,** that the Board of County Road Commissioners of the County of Livingston does hereby apply for participation in the replacement of the Milett Road Bridge over the Red Cedar River in Section 30 of Howell Township (Structure #5875), and be it further
- RESOLVED,** that the Milett Road Bridge is made the number 3 priority for funding, and be it further
- RESOLVED,** that staff is authorized to submit the application to the Michigan Department of Transportation and undertake any actions necessary to implement this resolution.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasyk, Managing Director



RESOLUTION OF THE

NUMBER:

2403-025

BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON

DATE:

March 14, 2024

---

Resolution for Participation in the Preventive Maintenance of the Byron Road Bridge Over Stoner Creek in Section 15 of Cohoctah Township, the Byron Road Bridge Over the Shiawassee River in Section 22 of Cohoctah Township, and the Oak Grove Road Bridge Over the Shiawassee River in Section 23 of Cohoctah Township

**WHEREAS,** the Board of County Road Commissioners of the County of Livingston wishes to submit Local Bridge Program Applications, and

**WHEREAS,** the Board wishes to actively seek participation in the replacement and/or repair of those bridges, and

**WHEREAS,** the Board has reviewed staff recommendations to establish priorities for funding, now therefore be it

**RESOLVED,** that the Board of County Road Commissioners of the County of Livingston does hereby apply for participation in the preventive maintenance of the following bridges:

- Byron Road over Stoner Creek in Section 15 of Cohoctah Township (Structure #5854)
- Byron Road over the Shiawassee River in Section 22 of Cohoctah Township (Structure #5853)
- Oak Grove Road over the Shiawassee River in Section 23 of Cohoctah Township (Structure #5837)

and be it further

**RESOLVED,** that the preventative maintenance of the aforementioned three bridges is made the number 4 priority for funding, and be it further

**RESOLVED,** that staff is authorized to submit the application to the Michigan Department of Transportation and undertake any actions necessary to implement this resolution.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasytk, Managing Director

# Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575  
Telephone: (517) 546-4250 • Facsimile: (517) 546-9628  
Internet Address: [www.livingstonroads.org](http://www.livingstonroads.org)

**F.7.**

## MEMORANDUM

**Date:** March 14, 2024  
**To:** Board of County Road Commissioners  
**From:** Steve Wasylk, Managing Director  
**Subject:** Project Agreements – Howell Township

---

Attached are two project agreements authorized by Howell Township for road improvements. The project locations are listed below.

1. Bowen Road – between Brewer Road and Tooley Road
2. Layton Road – from the end of the pavement to the end of the pavement

Staff recommends approval of the agreements and the associated resolution.

**RESOLUTION OF THE**

**NUMBER:**

**2403-026**

**BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE  
COUNTY OF LIVINGSTON**

**DATE:**

**March 14, 2024**

---

**Resolution Accepting Two Project Agreements with Howell Township**

**WHEREAS,** Howell Township wishes to provide improvements to the following road segments in accordance with cost estimates prepared by Livingston County Road Commission staff:

- Bowen Road – between Brewer Road and Tooley Road
- Layton Road – from the end of pavement to the end of pavement

and

**WHEREAS,** Howell Township has approved the associated project agreements, now therefore be it

**RESOLVED,** that the Board of County Road Commissioners of the County of Livingston approves said project agreements with Howell Township for road improvements as indicated in the agreements, and be it further

**RESOLVED,** that the Board authorizes the Managing Director and the Director of Finance to sign the agreements on their behalf.

**MOVED:**

**SUPPORTED:**

**AYES:**

**NAYS:**

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

---

Steven J. Wasyk, Managing Director

# PROJECT AGREEMENT

JOB NUMBER: 489.10.5142BV

This Agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2024 by and between the TOWNSHIP of HOWELL, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

## WITNESSETH

The Township has selected the following road to be improved as described below:

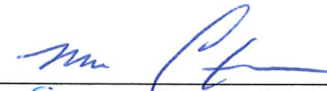
**BOWEN ROAD  
(FROM BREWER ROAD TO TOOLEY ROAD)  
APPROXIMATELY 5,450 FEET  
LIMESTONE RESURFACING, LIMITED DRAINAGE  
ALTOGETHER WITH THE NECESSARY RELATED WORK**


The parties agree as follows:

1. The Township shall pay the Road Commission 100% of the cost of the project, as follows: \$244,000.
  - A. The balance shall be paid promptly as invoiced.
  - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
  - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
3. The work will be completed within the current contract year, unless the parties otherwise so agree.
4. In the event the project cannot be completed due to circumstances beyond the control of the Road Commission, and through no fault of the Road Commission, the contract price for later completion will be subject to renegotiation.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

TOWNSHIP OF HOWELL

BY:   
MIKE CODDINGTON, SUPERVISOR

  
SUE DAUS, CLERK

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON

BY: \_\_\_\_\_  
STEVEN J. WASYLK, MANAGING DIRECTOR

\_\_\_\_\_  
SARAH R. NEWTON, DIRECTOR OF FINANCE

# PROJECT AGREEMENT

JOB NUMBER: 489.10.5141BW

This Agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2024 by and between the TOWNSHIP of HOWELL, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

## WITNESSETH

The Township has selected the following road to be improved as described below:


LAYTON ROAD  
END OF PAVEMENT TO END OF PAVEMENT  
APPROXIMATELY 0.52 MILES  
4.0" MILL 4.0" HMA  
ALTOGETHER WITH THE NECESSARY RELATED WORK

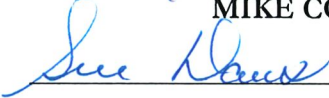
The parties agree as follows:

1. The Engineer's opinion of cost of the project is \$225,000. The Township shall pay up to 50% of the project cost, not to exceed \$112,500.
  - A. The balance shall be paid promptly as invoiced.
  - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
  - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
3. The work will be completed within the current contract year, unless the parties otherwise so agree.
4. In the event the project cannot be completed due to circumstances beyond the control of the Road Commission, and through no fault of the Road Commission, the contract price for later completion will be subject to renegotiation.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

TOWNSHIP OF HOWELL

BY:   
MIKE CODDINGTON, SUPERVISOR

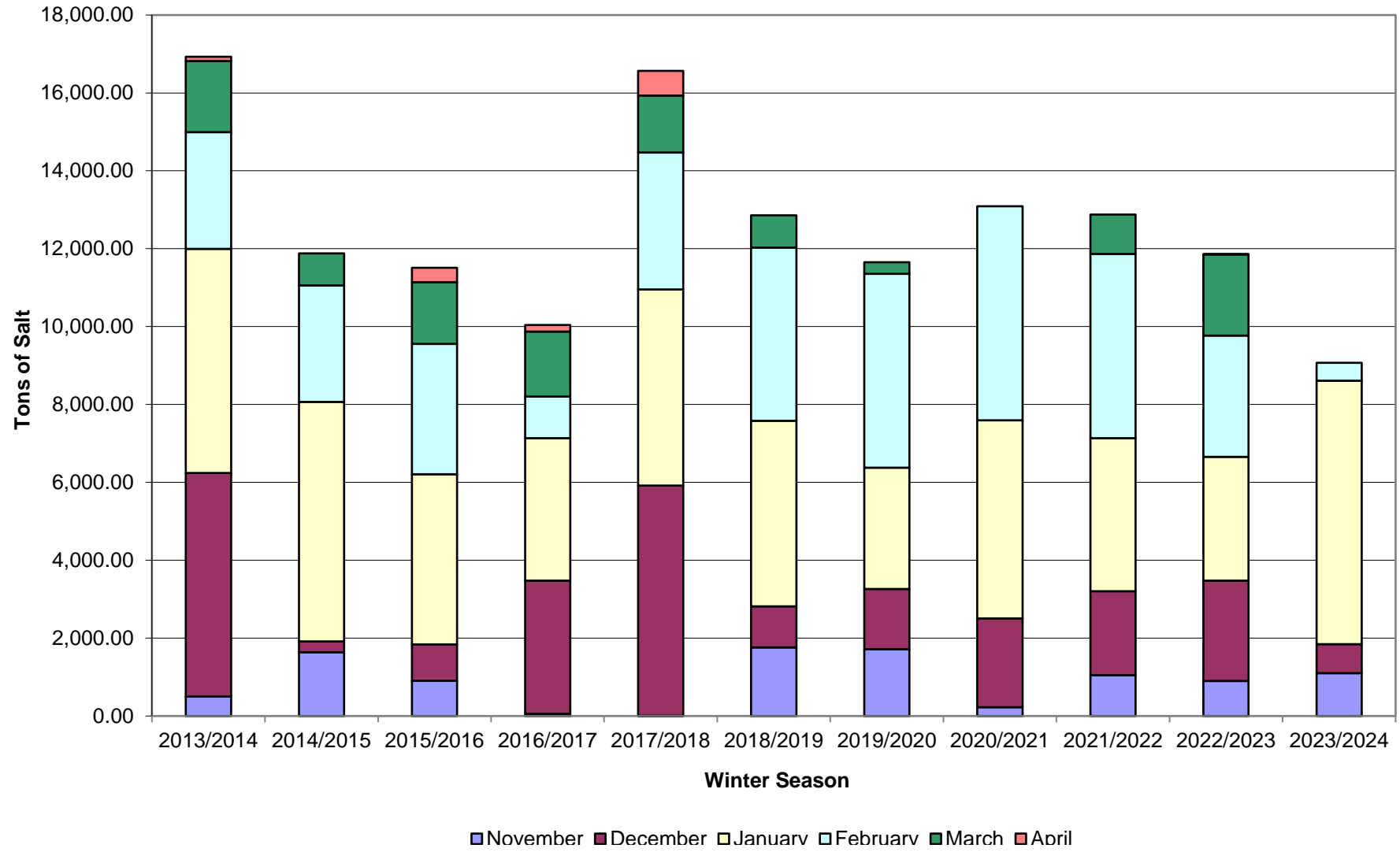
  
SUE DAUS, CLERK

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE COUNTY OF LIVINGSTON

BY: \_\_\_\_\_  
STEVEN J. WASYLK, MANAGING DIRECTOR

\_\_\_\_\_  
SARAH R. NEWTON, DIRECTOR OF FINANCE

LCRC Salt Usage by Year





Minutes – February 29, 2024

THAT the meeting was called to order by Commissioner Crane at 9:30 a.m. in the Board Room of the Livingston County Road Commission, 3535 Grand Oaks Drive, Howell, Michigan. Notice of the meeting was posted in accordance with Act #267 of 1976.

- A. CALL TO ORDER
- B. PLEDGE OF ALLEGIANCE
- C. ROLL CALL

Commissioners Present: Stephen F. Crane  
Paul S. Funk  
Kevin T. Spicher

Staff Present: Trevor Bennett, Director of Operations  
Sarah Newton, Director of Finance  
Jodie Tedesco, Director of Engineering  
Steve Wasylk, Managing Director

Others Present: Tim Boal, Howell Township  
Scott Hable, Hartland Township

D. APPROVAL OF AGENDA

**ACTION:** It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve the agenda as presented.

Ayes: Commissioners Crane, Funk, Spicher  
Nays: None  
Motion: Carried

E. CALL TO THE PUBLIC (1)

No Response

F. ACTION ITEMS

- 1. MDOT Contract Approval
  - MDOT Contract No. 24-5062 – White Lake Road  
(Resolution 2402-016)

Steve Wasylk presented the Board with a resolution to approve Michigan Department of Transportation Contract No. 24-5062 for roadway rehabilitation work on 3.9 miles of White Lake Road in Tyrone Township. Mr. Wasylk explained that the project was approved as a line-item Legislative Earmark in the State's transportation budget and added that State Representative Mike Mueller sponsored the earmark in the amount of \$1,440,000.

**ACTION:** It was moved by Commissioner Spicher, seconded by Commissioner Funk, to approve Resolution 2402-016.

# 6314

Ayes: Commissioners Crane, Funk, Spicher  
Nays: None  
Motion: Carried

## G. INFORMATION AND REPORTS

No Report

## H. CALL TO THE PUBLIC (2)

No Response

## I. LEGAL

None

## J. ADMINISTRATIVE BUSINESS

### 1. Minutes

#### a. Regular Board Meeting – February 8, 2024

**ACTION:** It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve the Regular Board Meeting Minutes as presented.

Ayes: Commissioners Crane, Funk, Spicher  
Nays: None  
Motion: Carried

### 2. Bills

**ACTION:** It was moved by Commissioner Spicher, seconded by Commissioner Funk, to approve Voucher No. BV-4101 in the net amount of \$667,997.10.

Ayes: Commissioners Crane, Funk, Spicher  
Nays: None  
Motion: Carried

### 3. Meetings Announced

#### a. Next Regular Board Meeting – March 14, 2024

### 4. Financial Reports Reviewed

#### a. Cash Position Statement

### 5. Miscellaneous Road Items

Jodie Tedesco informed the Board that the Faussett Road bridge superstructure replacement project in Tyrone Township and the Cohoctah Road bridge replacement project in Deerfield Township were underway. Ms. Tedesco added that the Old US-23 reconstruction project in Hartland Township should begin within the next few weeks.

Commissioner Funk expressed concern about maintaining access to the businesses along Old US-23 during construction-related road closures. Jodie Tedesco responded that access would be maintained to all businesses during construction. Ms. Tedesco added that staff would communicate with affected businesses during construction to ensure access.

Commissioner Funk inquired about the Road Commission's involvement when townships consider road millages. Steve Wasyk responded that the Road Commission provides project suggestions, cost estimates, and guidance as requested. Mr. Wasyk then discussed the Road Commission's involvement in the successful road millage campaigns in Hartland Township and Green Oak Township.

**K. ADJOURNMENT**

There being no further business to come before the Board, Commissioner Crane declared the meeting adjourned at 9:55 a.m.

Signed \_\_\_\_\_  
Stephen F. Crane, Chair

Signed \_\_\_\_\_  
Steven J. Wasyk, Managing Director

**This Space Intentionally Left Blank**

Date 03/13/2024  
Time 07:30:10

Livingston County Road Commission  
AP - Payment Selection Distribution Detail

----- Vendor -----		----- Invoice -----		Gross	Discount	Net	Pay	Discount	
Number	Name	Number	Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
<b>ATMMAI ACTION TRAFFIC MAINTENANCE INC</b>	<b>1254416</b>	<b>02/15/2024</b>	<b>03/15/2024</b>	<b>1,690.00</b>		<b>1,690.00</b>	<b>1,690.00</b>		GUARDRAIL
201 000 467 102 000021 769 000 000000		1,690.00	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / GUARD RAIL / GUARDRAIL /						
<b>ADVAUT ADVANCED AUTO PARTS</b>	<b>8082406153584</b>	<b>03/01/2024</b>	<b>04/01/2024</b>	38.52		38.52	38.52		SHOP EQUIPMENT
201 000 511 000 000000 737 000 000000		5.46	INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /						
201 000 511 000 000000 935 003 000000		33.06	INDIRECT / / / SHOP EQUIPMENT (TOOLS) /						
	<b>8082406153592</b>	<b>03/01/2024</b>	<b>04/01/2024</b>	287.92		287.92	287.92		BRK PADS/ ROTORS
201 000 000 000 000000 108 000 000000		287.92	/ / / NON-INVENTORY /						
	<b>8082406153610</b>	<b>03/01/2024</b>	<b>04/01/2024</b>	139.11		139.11	139.11		WIRE / SPARK PLUGS
201 000 000 000 000000 108 000 000000		139.11	/ / / NON-INVENTORY /						
				<b>465.55</b>		<b>465.55</b>	<b>465.55</b>		
<b>AISCON AIS CONSTRUCTION EQ., INC</b>	<b>D55699</b>	<b>03/04/2024</b>	<b>04/04/2024</b>	104.70		104.70	104.70		CLAMPS / SCREWS
201 000 000 000 000000 108 000 000000		104.70	/ / / NON-INVENTORY /						
	<b>D55873</b>	<b>03/05/2024</b>	<b>04/05/2024</b>	59.13		59.13	59.13		CONNECTOR / SOCKET
201 000 000 000 000000 108 000 000000		59.13	/ / / NON-INVENTORY /						
	<b>D55874</b>	<b>03/05/2024</b>	<b>04/05/2024</b>	285.66		285.66	285.66		OIL
201 000 000 000 000000 108 000 000000		285.66	/ / / NON-INVENTORY /						
				<b>449.49</b>		<b>449.49</b>	<b>449.49</b>		
<b>ALMBOL ALMA BOLT COMPANY</b>	<b>A539278</b>	<b>02/27/2024</b>	<b>03/27/2024</b>	1.38		1.38	1.38		MISC BOLTS
201 000 511 000 000000 737 000 000000		1.38	INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /						
	<b>A540237</b>	<b>03/06/2024</b>	<b>04/06/2024</b>	142.72		142.72	142.72		GLOVES/ CAP SCREWS
201 000 511 000 000000 737 000 000000		142.72	INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /						
				<b>144.10</b>		<b>144.10</b>	<b>144.10</b>		
<b>ALRSTE ALRO STEEL CORP.</b>	<b>ECF7828T2</b>	<b>03/06/2024</b>	<b>04/06/2024</b>	276.22		276.22	276.22		STEEL
201 000 000 000 000000 108 000 000000		276.22	/ / / NON-INVENTORY /						
<b>SYNAMA AMAZON CAPITAL SERVICES</b>	<b># 1LPJ-JTVK-YRCK</b>	<b>02/25/2024</b>	<b>03/25/2024</b>	48.41		48.41	48.41		SOCKET SET
201 000 511 000 000000 935 003 000000		48.41	INDIRECT / / / SHOP EQUIPMENT (TOOLS) /						
	<b>1GPW-7JW6-CFNL</b>	<b>03/08/2024</b>	<b>04/08/2024</b>	132.13		132.13	132.13		SHOP EQUIPMENT
201 000 511 000 000000 935 003 000000		132.13	INDIRECT / / / SHOP EQUIPMENT (TOOLS) /						
	<b>1R4M-KTYT-JDDY</b>	<b>03/01/2024</b>	<b>04/01/2024</b>	48.90		48.90	48.90		STOCK ROOM SUPPLIES

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----- Vendor -----		----- Invoice -----		Gross	Discount	Net	Pay	Discount	
Number	Name	Number	Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 511 000 000000 737 000 000000		48.90	INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /	229.44		229.44	229.44		
<b>AUTONE AUTO ONE HOWELL</b>	<b>53102</b>	<b>02/23/2024</b>	<b>03/23/2024</b>	<b>339.99</b>		<b>339.99</b>	<b>339.99</b>		REAR WINDOW
201 000 000 000 000000 108 000 000000		339.99	/ / / NON-INVENTORY /						
<b>AUTON1 AUTO ONE OF BRIGHTON</b>	<b>161279</b>	<b>02/28/2024</b>	<b>03/28/2024</b>	<b>499.95</b>		<b>499.95</b>	<b>499.95</b>		WINDSHIELD
201 000 000 000 000000 108 000 000000		499.95	/ / / NON-INVENTORY /						
<b>KNABAR BARBARA KNAPP</b>	<b>MAR2024</b>	<b>03/14/2024</b>	<b>04/14/2024</b>	<b>178.75</b>		<b>178.75</b>	<b>178.75</b>		INSURANCE
201 000 513 000 000000 716 020 000000		178.75	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>BCBSMA BCBS MICHIGAN-MEDICARE</b>	<b>37050 600</b>	<b>03/08/2024</b>	<b>04/08/2024</b>	1,496.85		1,496.85	1,496.85		INSURANCE
201 000 513 000 000000 716 000 000000		1,496.85	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
	<b>37050 601</b>	<b>03/08/2024</b>	<b>04/08/2024</b>	1,743.08		1,743.08	1,743.08		INSURANCE
201 000 513 000 000000 716 000 000000		1,743.08	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
				<b>3,239.93</b>		<b>3,239.93</b>	<b>3,239.93</b>		
<b>BLUCRO BCBS OF MI - MOS</b>	<b>007004247 / 0001</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	43,522.58		43,522.58	43,522.58		INSURANCE
201 000 513 000 000000 716 000 000000		43,522.58	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
	<b>007004247 / 0002</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	12,527.03		12,527.03	12,527.03		INSURANCE
201 000 513 000 000000 716 000 000000		12,527.03	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
	<b>007004247 / 0003</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	3,349.87		3,349.87	3,349.87		INSURANCE
201 000 513 000 000000 716 000 000000		3,349.87	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
	<b>007004247 / 0004</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	82.72		82.72	82.72		INSURANCE
201 000 513 000 000000 716 000 000000		82.72	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
	<b>007004247 / 0007</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	3,463.48		3,463.48	3,463.48		INSURANCE
201 000 513 000 000000 716 000 000000		3,463.48	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
	<b>007004247 / 0008</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	8,870.04		8,870.04	8,870.04		INSURANCE
201 000 513 000 000000 716 000 000000		8,870.04	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
	<b>007004247 / 0010</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	2,442.56		2,442.56	2,442.56		INSURANCE
201 000 513 000 000000 716 000 000000		2,442.56	DISTRIBUTIVE EXPENSE - FRINGE / / / HEALTH CARE INSURANCE /						
				<b>74,258.28</b>		<b>74,258.28</b>	<b>74,258.28</b>		

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<b>BEARES</b>	<b>BEAVER RESEARCH COMPANY</b>	<b>0368320-IN</b>	<b>03/01/2024</b> 04/01/2024	<b>279.94</b>		<b>279.94</b>	<b>279.94</b>		STOCK ROOM SUPPLIES
	201 000 511 000 000000 737 000 000000		279.94 INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /						
<b>BIGWAT</b>	<b>BIG WATER TECHNOLOGIES CORP.</b>	<b>800109034380</b>	<b>03/02/2024</b> 04/02/2024	<b>293.46</b>		<b>293.46</b>	<b>293.46</b>		PHONES
	201 000 515 000 000000 851 000 000000		293.46 ADIMINISTRATIVE EXPENSE / / / TELEPHONE /						
<b>CDWGOVCDW</b>	<b>GOVERNMENT, INC</b>	<b>QD02932</b>	<b>03/12/2024</b> 04/12/2024	<b>516.78</b>		<b>516.78</b>	<b>516.78</b>		TONER
	201 000 515 000 000000 807 000 000000		516.78 ADIMINISTRATIVE EXPENSE / / / DATA PROCESSING/COMP SUPPLIES /						
<b>CHRTRE</b>	<b>CHRIS` TREE SERVICE, LLC</b>	<b>031224</b>	<b>03/12/2024</b> 04/12/2024	<b>7,000.00</b>		<b>7,000.00</b>	<b>7,000.00</b>		TREES
	201 000 459 000 0079AV 811 000 000051		7,000.00 PRIMARY ROAD HEAVY MAINTENANCE / / CHASE LK / TREES / Trees/Stumps						
<b>CINFAS</b>	<b>CINTAS FIRST AID &amp; SAFETY</b>	<b>4184708554</b>	<b>02/27/2024</b> 03/27/2024	175.10		175.10	175.10		UNIFORMS
	201 000 511 000 000000 737 001 000000		175.10 INDIRECT / / / UNIFORMS / EMPLOYEE EQUIPMENT /						
		<b>4185401394</b>	<b>03/05/2024</b> 04/05/2024	175.10		175.10	175.10		UNIFORMS
	201 000 511 000 000000 737 001 000000		175.10 INDIRECT / / / UNIFORMS / EMPLOYEE EQUIPMENT /						
		<b>4186115229</b>	<b>03/12/2024</b> 04/12/2024	175.10		175.10	175.10		UNIFORMS
	201 000 511 000 000000 737 001 000000		175.10 INDIRECT / / / UNIFORMS / EMPLOYEE EQUIPMENT /						
		<b>9261971591</b>	<b>03/01/2024</b> 04/01/2024	214.00		214.00	214.00		AED AGREEMENT
	201 000 511 000 000000 734 000 000000		214.00 INDIRECT / / / SAFETY SUPPLIES /						
				<b>739.30</b>		<b>739.30</b>	<b>739.30</b>		
<b>COMCARCOMERICA</b>	<b>COMMERCIAL CARD SRVC FEB2024</b>		<b>02/29/2024</b> 03/29/2024	<b>2,368.13</b>		<b>2,368.13</b>	<b>2,368.13</b>		TRAINING / PAPER PRODUCTS / ENGINEERING EQUIPMENT / PHONE CASE / INTERNET / FUEL
	201 000 511 000 000000 731 000 000000		308.17 INDIRECT / / / JANITOR SUPPLIES /						
	201 000 511 000 000000 737 000 000000		690.92 INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /						
	201 000 511 000 000000 851 000 000000		9.99 INDIRECT / / / TELEPHONE /						
	201 000 512 000 900066 742 000 000000		57.74 OPERATING / / 900066 2021 FORD EXPLORER XLT 4x4 / GASOLINE UNLEADED /						
	201 000 514 000 000000 823 000 000000		331.80 DISTRIBUTIVE EXPENSE - OTHER / / / MISC TO ROADS - A/P /						
	201 000 514 000 000000 842 000 000000		450.22 DISTRIBUTIVE EXPENSE - OTHER / / / TRAINING COSTS /						
	201 000 514 000 000000 935 000 000000		195.78 DISTRIBUTIVE EXPENSE - OTHER / / / ENGINEERING EQUIPMENT/REPAIR /						
	201 000 515 000 000000 730 000 000000		9.99 ADIMINISTRATIVE EXPENSE / / / DUES & SUBSCRIPTIONS /						

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Number Name	Number Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 515 000 000000 851 000 000000	313.52 ADIMINISTRATIVE EXPENSE / / / TELEPHONE /						
<b>CONPO4 CONSUMERS ENERGY</b>	<b>1000 0024 9407</b>	<b>02/29/2024</b>	<b>03/29/2024</b>	<b>25.11</b>	<b>25.11</b>	<b>25.11</b>	UTILITIES
201 000 467 102 000023 921 000 000000	25.11 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / TRAFFIC SIGNAL / ELECTRICITY /						
	<b>1000 0024 9555</b>	<b>02/29/2024</b>	<b>03/29/2024</b>	<b>18.99</b>	<b>18.99</b>	<b>18.99</b>	UTILITIES
201 000 467 102 000023 921 000 000000	18.99 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / TRAFFIC SIGNAL / ELECTRICITY /						
		<b>44.10</b>		<b>44.10</b>	<b>44.10</b>		
<b>CORREC CORRIGAN RECORD STORAGE LLC</b>	<b>1220966</b>	<b>03/01/2024</b>	<b>04/01/2024</b>	<b>54.72</b>	<b>54.72</b>	<b>54.72</b>	DOCUMENT SHREDDING
201 000 515 000 000000 728 000 000000	54.72 ADIMINISTRATIVE EXPENSE / / / OFFICE SUPPLIES /						
<b>CORTOW CORRIGAN TOWING</b>	<b>272171-1</b>	<b>03/08/2024</b>	<b>04/08/2024</b>	<b>176.30</b>	<b>176.30</b>	<b>176.30</b>	TOW
201 000 000 000 000000 108 000 000000	176.30 / / / NON-INVENTORY /						
<b>CSXGOV CSXT GOV BILLING</b>	<b>CHILSON</b>	<b>02/15/2024</b>	<b>03/15/2024</b>	<b>2,500.00</b>	<b>2,500.00</b>	<b>2,500.00</b>	CHILSON RD 83AW
201 000 459 000 0083AW 802 003 000079	2,500.00 PRIMARY ROAD HEAVY MAINTENANCE / / CHILSON RD / DESIGN / Design Engineering						
<b>CULEXC CULVER EXCAVATING, INC.</b>	<b>6871</b>	<b>01/31/2024</b>	<b>02/29/2024</b>	<b>15,980.00</b>	<b>15,980.00</b>	<b>15,980.00</b>	GRAVEL
201 000 467 101 000001 761 000 000000	2,820.00 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / GRAVEL PATCHING / GRAVEL /						
201 000 467 102 000010 761 000 000000	2,350.00 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SHOULDERS / GRAVEL /						
201 000 497 002 000001 761 000 000000	470.00 LOCAL ROAD MAINTENANCE / COHOCTAH TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 003 000001 761 000 000000	2,350.00 LOCAL ROAD MAINTENANCE / CONWAY TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 008 000001 761 000 000000	3,290.00 LOCAL ROAD MAINTENANCE / HANDY TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 011 000001 761 000 000000	470.00 LOCAL ROAD MAINTENANCE / ISOCO TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 012 000001 761 000 000000	940.00 LOCAL ROAD MAINTENANCE / MARION TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 016 000001 761 000 000000	3,290.00 LOCAL ROAD MAINTENANCE / UNADILLA TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
	<b>6892</b>	<b>02/28/2024</b>	<b>03/28/2024</b>	<b>62,402.00</b>	<b>62,402.00</b>	<b>62,402.00</b>	GRAVEL
201 000 467 101 000001 761 000 000000	7,990.00 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / GRAVEL PATCHING / GRAVEL /						
201 000 467 102 000010 761 000 000000	9,400.00 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SHOULDERS / GRAVEL /						
201 000 497 002 000001 761 000 000000	6,110.00 LOCAL ROAD MAINTENANCE / COHOCTAH TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 003 000001 761 000 000000	12,218.00 LOCAL ROAD MAINTENANCE / CONWAY TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 008 000001 761 000 000000	5,222.00 LOCAL ROAD MAINTENANCE / HANDY TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 010 000001 761 000 000000	4,700.00 LOCAL ROAD MAINTENANCE / HOWELL TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 011 000001 761 000 000000	6,214.00 LOCAL ROAD MAINTENANCE / ISOCO TOWNSHIP / GRAVEL PATCHING / GRAVEL /						

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Number	Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 497 012 000001	761 000 000000		3,916.00		LOCAL ROAD MAINTENANCE / MARION TOWNSHIP / GRAVEL PATCHING / GRAVEL /					
201 000 497 014 000001	761 000 000000		2,350.00		LOCAL ROAD MAINTENANCE / PUTNAM TOWNSHIP / GRAVEL PATCHING / GRAVEL /					
201 000 497 016 000001	761 000 000000		4,282.00		LOCAL ROAD MAINTENANCE / UNADILLA TOWNSHIP / GRAVEL PATCHING / GRAVEL /					
			<b>78,382.00</b>				<b>78,382.00</b>	<b>78,382.00</b>		
<b>CUMBRI</b>	<b>CUMMINS SALES AND SERVICE</b>	<b>S6-21523</b>	<b>02/27/2024</b>	<b>03/27/2024</b>	414.42		414.42	414.42		SERVICE CALL
201 000 000 000 000000	108 000 000000		414.42		/// NON-INVENTORY /					
		<b>S6-21713</b>	<b>03/01/2024</b>	<b>04/01/2024</b>	372.81		372.81	372.81		GASKETS, FILTERS ,HOSE
201 000 000 000 000000	108 000 000000		372.81		/// NON-INVENTORY /					
		<b>S6-21732</b>	<b>03/01/2024</b>	<b>04/01/2024</b>	10.40		10.40	10.40		GASKET / OIL COOLER SUPPORT
201 000 000 000 000000	108 000 000000		10.40		/// NON-INVENTORY /					
			<b>797.63</b>				<b>797.63</b>	<b>797.63</b>		
<b>MACDEN</b>	<b>DENISE MACK</b>	<b>MAR2024</b>	<b>03/14/2024</b>	<b>04/14/2024</b>	<b>270.52</b>		<b>270.52</b>	<b>270.52</b>		INSURANCE
201 000 513 000 000000	716 020 000000		270.52		DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /					
<b>DEVTEC</b>	<b>DEVEN'S TECH SUPPLY, INC.</b>	<b>8383</b>	<b>02/26/2024</b>	<b>03/26/2024</b>	<b>428.20</b>		<b>428.20</b>	<b>428.20</b>		TIRES / SHOP EQU
201 000 511 000 000000	747 000 000000		102.80		INDIRECT / / / TIRES AND TUBES /					
201 000 511 000 000000	935 003 000000		325.40		INDIRECT / / / SHOP EQUIPMENT (TOOLS) /					
<b>DIAMOW</b>	<b>DIAMOND MOWERS LLC</b>	<b>258709</b>	<b>02/21/2024</b>	<b>03/21/2024</b>	<b>201.14</b>		<b>201.14</b>	<b>201.14</b>		TOOTH HOLDER ASSEMBLY
201 000 000 000 000000	108 000 000000		201.14		/// NON-INVENTORY /					
<b>DIEEQU</b>	<b>DIESEL EQ SALES &amp; SERVICE</b>	<b>342800</b>	<b>02/27/2024</b>	<b>03/27/2024</b>	<b>555.55</b>		<b>555.55</b>	<b>555.55</b>		PUMP
201 000 000 000 000000	108 000 000000		555.55		/// NON-INVENTORY /					
<b>DIVCRE</b>	<b>DIVERSIFIED CREATIONS</b>	<b>63901</b>	<b>02/29/2024</b>	<b>03/29/2024</b>	<b>411.51</b>		<b>411.51</b>	<b>411.51</b>		RUNNING BOARDS
201 000 000 000 000000	108 000 000000		411.51		/// NON-INVENTORY /					
<b>DEDEDI</b>	<b>DTE ENERGY</b>	<b>910040579807</b>	<b>02/29/2024</b>	<b>03/29/2024</b>	<b>3,204.14</b>		<b>3,204.14</b>	<b>3,204.14</b>		UTILITIES
201 000 467 102 000023	921 000 000000		1,232.90		PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / TRAFFIC SIGNAL / ELECTRICITY /					
201 000 511 000 000000	921 000 000000		1,971.24		INDIRECT / / / ELECTRICITY /					



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Number	Name	Number	Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
<b>FALROA</b>	<b>FALCON ROAD MAINTENANCE</b>	<b>019470</b>	<b>03/08/2024</b> 04/08/2024	<b>48.23</b>		<b>48.23</b>	<b>48.23</b>		NOZZLE
	201 000 000 000 000000 108 000 000000		48.23 / / / NON-INVENTORY /						
<b>FLEADM</b>	<b>FLEX ADMINISTRATORS, INC.</b>	<b>1026802</b>	<b>03/05/2024</b> 04/05/2024	<b>60.00</b>		<b>60.00</b>	<b>60.00</b>		FLEX ACCOUNTS
	201 000 515 000 000000 937 000 000000		60.00 ADIMINISTRATIVE EXPENSE / / / OTHER /						
<b>FLINEW</b>	<b>FLINT NEW HOLLAND, INC.</b>	<b>IF15167</b>	<b>03/04/2024</b> 04/04/2024	158.23		158.23	158.23		RETAINER / STUD
	201 000 000 000 000000 108 000 000000		158.23 / / / NON-INVENTORY /						
		<b>IF15265</b>	<b>03/12/2024</b> 04/12/2024	867.30		867.30	867.30		CYLINDER
	201 000 000 000 000000 110 000 000000		867.30 / / / PARTS /						
				<b>1,025.53</b>		<b>1,025.53</b>	<b>1,025.53</b>		
<b>FREMAR</b>	<b>FREDERICK MARR</b>	<b>MAR2024</b>	<b>03/14/2024</b> 04/14/2024	<b>300.00</b>		<b>300.00</b>	<b>300.00</b>		INSURANCE
	201 000 513 000 000000 716 020 000000		300.00 DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>FYKWAS</b>	<b>FYKE WASHED SAND &amp;</b>	<b>73904</b>	<b>02/23/2024</b> 03/23/2024	462.80		462.80	462.80		GRAVEL
	201 000 497 007 000001 761 000 000000		462.80 LOCAL ROAD MAINTENANCE / HAMBURG TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
		<b>73923</b>	<b>02/27/2024</b> 03/27/2024	429.98		429.98	429.98		GRAVEL
	201 000 497 005 000001 761 000 000000		429.98 LOCAL ROAD MAINTENANCE / GENOA TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
		<b>73937</b>	<b>02/29/2024</b> 03/29/2024	455.65		455.65	455.65		GRAVEL
	201 000 497 005 000001 761 000 000000		455.65 LOCAL ROAD MAINTENANCE / GENOA TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
		<b>73972</b>	<b>03/05/2024</b> 04/05/2024	530.08		530.08	530.08		GRAVEL
	201 000 497 007 000001 761 000 000000		530.08 LOCAL ROAD MAINTENANCE / HAMBURG TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
				<b>1,878.51</b>		<b>1,878.51</b>	<b>1,878.51</b>		
<b>GBMREC</b>	<b>GBM RECYCLED CONCRETE,CO.</b>	<b>R24-087</b>	<b>03/05/2024</b> 04/05/2024	1,732.37		1,732.37	1,732.37		GRAVEL
	201 000 497 005 000001 761 000 000000		905.87 LOCAL ROAD MAINTENANCE / GENOA TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
	201 000 497 006 000001 761 000 000000		826.50 LOCAL ROAD MAINTENANCE / GREEN OAK TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
		<b>R24-107</b>	<b>03/11/2024</b> 04/11/2024	2,508.57		2,508.57	2,508.57		GRAVEL
	201 000 497 001 000001 761 000 000000		1,247.16 LOCAL ROAD MAINTENANCE / BRIGHTON TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
	201 000 497 007 000001 761 000 000000		1,261.41 LOCAL ROAD MAINTENANCE / HAMBURG TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
				<b>4,240.94</b>		<b>4,240.94</b>	<b>4,240.94</b>		
<b>GBMSAN</b>	<b>GBM SAND &amp; GRAVEL, INC</b>	<b>T240232</b>	<b>02/29/2024</b> 03/29/2024	11,954.40		11,954.40	11,954.40		GRAVEL

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----- Vendor -----		----- Invoice -----		Gross	Discount	Net	Pay	Discount		
Number	Name	Number	Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments	
201 000 467 101 000001	761 000 000000			1,920.00					PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / GRAVEL PATCHING / GRAVEL /	
201 000 467 102 000010	761 000 000000			3,313.20					PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SHOULDERS / GRAVEL /	
201 000 497 004 000001	761 000 000000			3,592.20					LOCAL ROAD MAINTENANCE / DEERFIELD TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 013 000001	761 000 000000			1,006.80					LOCAL ROAD MAINTENANCE / OCEOLA TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 015 000001	761 000 000000			2,122.20					LOCAL ROAD MAINTENANCE / TYRONE TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
<b>T240250</b>		<b>03/02/2024</b>	<b>04/02/2024</b>	<b>3,798.00</b>		<b>3,798.00</b>	<b>3,798.00</b>		<b>GRAVEL</b>	
201 000 467 102 000010	761 000 000000			924.00					PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SHOULDERS / GRAVEL /	
201 000 497 009 000001	761 000 000000			444.00					LOCAL ROAD MAINTENANCE / HARTLAND TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 013 000001	761 000 000000			1,350.00					LOCAL ROAD MAINTENANCE / OCEOLA TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 015 000001	761 000 000000			1,080.00					LOCAL ROAD MAINTENANCE / TYRONE TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
<b>T240262</b>		<b>03/08/2024</b>	<b>04/08/2024</b>	<b>6,040.80</b>		<b>6,040.80</b>	<b>6,040.80</b>		<b>GRAVEL</b>	
201 000 467 102 000010	761 000 000000			270.00					PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SHOULDERS / GRAVEL /	
201 000 497 004 000001	761 000 000000			2,224.80					LOCAL ROAD MAINTENANCE / DEERFIELD TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 005 000001	761 000 000000			462.00					LOCAL ROAD MAINTENANCE / GENOA TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 009 000001	761 000 000000			810.00					LOCAL ROAD MAINTENANCE / HARTLAND TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 013 000001	761 000 000000			270.00					LOCAL ROAD MAINTENANCE / OCEOLA TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
201 000 497 015 000001	761 000 000000			2,004.00					LOCAL ROAD MAINTENANCE / TYRONE TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
				<b>21,793.20</b>		<b>21,793.20</b>	<b>21,793.20</b>			
<b>GEOMES GEORGE MESSNER</b>		<b>MAR2024</b>		<b>03/14/2024</b>	<b>04/14/2024</b>	<b>226.53</b>		<b>226.53</b>	<b>226.53</b>	<b>INSURANCE</b>
201 000 513 000 000000	716 020 000000			226.53					DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /	
<b>GIEGLE GIEGLER'S FEED-SEED</b>		<b>217487</b>		<b>02/27/2024</b>	<b>03/27/2024</b>	<b>479.50</b>		<b>479.50</b>	<b>479.50</b>	<b>GRAVEL</b>
201 000 467 101 000001	761 000 000000			479.50					PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / GRAVEL PATCHING / GRAVEL /	
<b>217523</b>		<b>02/28/2024</b>	<b>03/28/2024</b>	<b>462.00</b>		<b>462.00</b>	<b>462.00</b>		<b>GRAVEL</b>	
201 000 497 009 000001	761 000 000000			462.00					LOCAL ROAD MAINTENANCE / HARTLAND TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
<b>217526</b>		<b>02/28/2024</b>	<b>03/28/2024</b>	<b>487.50</b>		<b>487.50</b>	<b>487.50</b>		<b>GRAVEL</b>	
201 000 497 005 000001	761 000 000000			487.50					LOCAL ROAD MAINTENANCE / GENOA TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
<b>217527</b>		<b>02/28/2024</b>	<b>03/28/2024</b>	<b>462.00</b>		<b>462.00</b>	<b>462.00</b>		<b>GRAVEL</b>	
201 000 497 009 000001	761 000 000000			462.00					LOCAL ROAD MAINTENANCE / HARTLAND TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
<b>217529</b>		<b>02/28/2024</b>	<b>03/28/2024</b>	<b>491.75</b>		<b>491.75</b>	<b>491.75</b>		<b>GRAVEL</b>	
201 000 497 009 000001	761 000 000000			491.75					LOCAL ROAD MAINTENANCE / HARTLAND TOWNSHIP / GRAVEL PATCHING / GRAVEL /	
<b>217531</b>		<b>02/28/2024</b>	<b>03/28/2024</b>	<b>496.00</b>		<b>496.00</b>	<b>496.00</b>		<b>GRAVEL</b>	

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----- Vendor -----		----- Invoice -----		Gross	Discount	Net	Pay	Discount		
Number	Name	Number	Date	Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 467 101 000001 761 000 000000		217533	02/28/2024	03/28/2024	462.00		462.00	462.00		GRAVEL
201 000 497 009 000001 761 000 000000		217536	02/28/2024	03/28/2024	495.00		495.00	495.00		GRAVEL
201 000 467 101 000001 761 000 000000		217559	02/29/2024	03/29/2024	495.00		495.00	495.00		GRAVEL
201 000 467 101 000001 761 000 000000		217562	02/29/2024	03/29/2024	462.00		462.00	462.00		GRAVEL
201 000 497 009 000001 761 000 000000		217719	03/04/2024	04/04/2024	495.00		495.00	495.00		GRAVEL
201 000 497 001 000001 761 000 000000		217726	03/04/2024	04/04/2024	495.00		495.00	495.00		GRAVEL
201 000 497 001 000001 761 000 000000		217777	03/05/2024	04/05/2024	491.75		491.75	491.75		GRAVEL
201 000 497 009 000001 761 000 000000		217891	03/08/2024	04/08/2024	396.00		396.00	396.00		GRAVEL
201 000 467 102 000010 761 000 000000		217900	03/08/2024	04/08/2024	462.00		462.00	462.00		GRAVEL
201 000 497 009 000001 761 000 000000		217987	03/11/2024	04/11/2024	495.00		495.00	495.00		GRAVEL
201 000 497 001 000001 761 000 000000		217993	03/11/2024	04/11/2024	495.00		495.00	495.00		GRAVEL
201 000 497 005 000001 761 000 000000					8,122.50		8,122.50	8,122.50		
<b>GRAING GRAINGER</b>		<b>9039429288</b>	<b>03/04/2024</b>	<b>04/04/2024</b>	<b>815.61</b>		<b>815.61</b>	<b>815.61</b>		<b>BROOM BRISTLES</b>
201 000 000 000 000000 108 000 000000			815.61	/ / / NON-INVENTORY /						
<b>HOMDEP HOME DEPOT CREDIT SERVICES</b>		<b>38883</b>	<b>02/29/2024</b>	<b>03/29/2024</b>	<b>428.00</b>		<b>428.00</b>	<b>428.00</b>		<b>TOOLS FOR SIGN TRUCK</b>
201 000 514 000 000000 790 000 000000			428.00	DISTRIBUTIVE EXPENSE - OTHER / / / SMALL ROAD TOOLS /						
		<b>41205</b>	<b>03/07/2024</b>	<b>04/07/2024</b>	<b>40.33</b>		<b>40.33</b>	<b>40.33</b>		<b>DRAINAGE</b>
201 000 467 102 000013 775 000 000000			40.33	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / DRAINAGE / DRAINAGE / EROSION /						
					<b>468.33</b>		<b>468.33</b>	<b>468.33</b>		

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----- Vendor -----		----- Invoice -----		Gross	Discount	Net	Pay	Discount	
Number	Name	Number	Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
<b>HUTSON HUTSON, INC</b> 201 000 511 000 000000 935 003 000000	<b>10302583</b>	<b>03/01/2024</b>	04/01/2024	<b>73.00</b>		<b>73.00</b>	<b>73.00</b>		SHOP EQUIPMENT
		73.00	INDIRECT / / / SHOP EQUIPMENT (TOOLS) /						
<b>JACMAR JACK MARSHALL</b> 201 000 513 000 000000 716 020 000000	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>184.45</b>		<b>184.45</b>	<b>184.45</b>		INSURANCE
		184.45	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>JACTRU JACKSON TRUCK SERVICE, INC</b> 201 000 000 000 000000 110 000 000000	<b>PS2002140914:01</b>	<b>02/27/2024</b>	03/27/2024	<b>306.37</b>		<b>306.37</b>	<b>306.37</b>		AIR SPRING
		306.37	/ / / PARTS /						
<b>HEIJE JEANNIE L. HEIER</b> 201 000 513 000 000000 716 020 000000	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>205.90</b>		<b>205.90</b>	<b>205.90</b>		INSURANCE
		205.90	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>HOSJER JERRY HOSKINS</b> 201 000 513 000 000000 716 020 000000	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>294.90</b>		<b>294.90</b>	<b>294.90</b>		INSURANCE
		294.90	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>JOHPLU JOHNSON PLUMBING AND</b> 201 000 467 102 000013 767 000 000000	<b>447</b>	<b>11/29/2022</b>	12/29/2022	1,750.00		1,750.00	1,750.00		CULVERTS
		1,750.00	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / DRAINAGE / CULVERT /						
<b>201 000 467 102 000013 815 000 000000</b>	<b>483</b>	<b>03/11/2024</b>	04/11/2024	2,800.00		2,800.00	2,800.00		CATCH BASINS
		2,800.00	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / DRAINAGE / CATCH BASIN						
			CLEANING/REPAIRS /						
<b>201 000 467 102 000013 767 000 000000</b>	<b>538</b>	<b>12/01/2023</b>	01/01/2024	2,800.00		2,800.00	2,800.00		CULVERTS
		2,800.00	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / DRAINAGE / CULVERT /						
			<b>7,350.00</b>						
			<b>7,350.00</b>						
			<b>7,350.00</b>						
<b>KIMMID KIMBALL MIDWEST</b> 201 000 511 000 000000 737 000 000000	<b>101980127</b>	<b>03/04/2024</b>	04/04/2024	<b>481.31</b>		<b>481.31</b>	<b>481.31</b>		STOCK ROOM SUPPLIES
		481.31	INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /						
<b>BREBUR LAW OFFICE OF PAUL E. BURNS</b> 201 000 497 001 000903 803 000 000000 201 000 497 006 000903 803 000 000000 201 000 515 000 000000 803 000 000000	<b>21-31128-CH</b>	<b>03/04/2024</b>	04/04/2024	<b>5,338.00</b>		<b>5,338.00</b>	<b>5,338.00</b>		LEGAL FEES
		700.00	LOCAL ROAD MAINTENANCE / BRIGHTON TOWNSHIP / Legal / LEGAL SERVICES /						
		775.00	LOCAL ROAD MAINTENANCE / GREEN OAK TOWNSHIP / Legal / LEGAL SERVICES /						
		3,863.00	ADIMINISTRATIVE EXPENSE / / / LEGAL SERVICES /						
<b>LIVCO2 LIVINGSTON COUNTY DRAIN</b> 201 000 467 102 000013 815 000 000000	<b>3784</b>	<b>03/08/2024</b>	04/08/2024	<b>890.58</b>		<b>890.58</b>	<b>890.58</b>		Catch Basins
		890.58	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / DRAINAGE / CATCH BASIN						
			CLEANING/REPAIRS /						

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Number	Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
<b>LOWES0</b>	<b>LOWE'S</b>	<b>203814980</b>	<b>02/29/2024</b>	03/29/2024	491.94		491.94	491.94		PAINT BRUSHES
201 000 511 000 000000	932 000 000000		491.94	INDIRECT / / / YARD & GROUND /						
		<b>25210</b>	<b>03/07/2024</b>	04/07/2024	15.10		15.10	15.10		PAINT SUPPLIES
201 000 511 000 000000	932 000 000000		15.10	INDIRECT / / / YARD & GROUND /						
		<b>84725</b>	<b>02/28/2024</b>	03/28/2024	-76.48		-76.48	-76.48		RETURN
201 000 467 102 000017	772 000 000000		-76.48	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SEEDING/FENCING/MAIL BOXES / MAIL BOXES /						
		<b>84731</b>	<b>01/28/2024</b>	02/28/2024	72.14		72.14	72.14		MAILBOXES
201 000 467 102 000017	772 000 000000		72.14	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SEEDING/FENCING/MAIL BOXES / MAIL BOXES /						
		<b>85134206</b>	<b>02/28/2024</b>	03/28/2024	163.08		163.08	163.08		SHOP EQUIPMENT
201 000 511 000 000000	737 000 000000		90.96	INDIRECT / / / SHOP SUPPLIES - STOCK ROOM /						
201 000 511 000 000000	935 003 000000		72.12	INDIRECT / / / SHOP EQUIPMENT (TOOLS) /						
					<b>665.78</b>		<b>665.78</b>	<b>665.78</b>		
<b>LYDOIL</b>	<b>LYDEN OIL COMPANY</b>	<b>2029159</b>	<b>03/04/2024</b>	04/04/2024	7,432.50		7,432.50	7,432.50		OIL
201 000 511 000 000000	746 001 000000		7,432.50	INDIRECT / / / GREASE BULK: SUMMER & WINTER /						
		<b>2029165</b>	<b>03/04/2024</b>	04/04/2024	880.29		880.29	880.29		OIL
201 000 511 000 000000	746 001 000000		245.04	INDIRECT / / / GREASE BULK: SUMMER & WINTER /						
201 000 511 000 000000	746 002 000000		635.25	INDIRECT / / / GREASE TUBE: SUMMER&WINTER /						
					<b>8,312.79</b>		<b>8,312.79</b>	<b>8,312.79</b>		
<b>GROMARK</b>	<b>MARK D. GROSS</b>	<b>03152024</b>	<b>03/15/2024</b>	04/15/2024	<b>1,400.00</b>		<b>1,400.00</b>	<b>1,400.00</b>		BUILDING MAINTENANCE
201 000 515 000 000000	821 000 000000		1,400.00	ADIMINISTRATIVE EXPENSE / / / JANITORIAL SERVICES /						
<b>HARMARK</b>	<b>MARK HART</b>	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>298.50</b>		<b>298.50</b>	<b>298.50</b>		INSURANCE
201 000 513 000 000000	716 020 000000		298.50	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>MARRUT</b>	<b>MARK RUTTMAN</b>	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>178.75</b>		<b>178.75</b>	<b>178.75</b>		INSURANCE
201 000 513 000 000000	716 020 000000		178.75	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>MEDLIF</b>	<b>MEDMUTUAL LIFE</b>	<b>033115762-8</b>	<b>01/31/2024</b>	02/29/2024	<b>2,543.44</b>		<b>2,543.44</b>	<b>2,543.44</b>		STD / AD&D INSURANCE
201 000 513 000 000000	717 000 000000		2,543.44	DISTRIBUTIVE EXPENSE - FRINGE / / / LIFE & DISABILITY INSURANCE /						

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Number	Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
<b>CRAMIC MICHAEL CRAINE</b>	<b>MAR2024</b>	<b>03/14/2024</b>	<b>04/14/2024</b>	<b>175.48</b>		<b>175.48</b>	<b>175.48</b>			INSURANCE
201 000 513 000 000000 716 020 000000		175.48	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /							
<b>HOLMIC MICHAEL HOLCOMB</b>	<b>MAR2024</b>	<b>03/14/2024</b>	<b>04/14/2024</b>	<b>296.05</b>		<b>296.05</b>	<b>296.05</b>			INSURANCE
201 000 513 000 000000 716 020 000000		296.05	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /							
<b>MICTRA MICHIGAN CAT</b>	<b>PD15808855</b>	<b>02/28/2024</b>	<b>03/28/2024</b>	77.40		77.40	77.40			WEAR STRIP
201 000 000 000 000000 110 000 000000		77.40	/ / / PARTS /							
	<b>PD15808880</b>	<b>02/28/2024</b>	<b>03/28/2024</b>	170.28		170.28	170.28			WEAR STRIP
201 000 000 000 000000 110 000 000000		170.28	/ / / PARTS /							
	<b>PD15808881</b>	<b>02/28/2024</b>	<b>03/28/2024</b>	301.86		301.86	301.86			WEAR STRIP
201 000 000 000 000000 110 000 000000		301.86	/ / / PARTS /							
				<b>549.54</b>		<b>549.54</b>	<b>549.54</b>			
<b>MICHIG MICHIGAN HIGHWAY HAZARD</b>	<b>674629</b>	<b>02/29/2024</b>	<b>03/29/2024</b>	<b>5,730.00</b>		<b>5,730.00</b>	<b>5,730.00</b>			ANIMAL / LITTER PICKUP
201 000 467 102 000019 823 000 000000		5,730.00	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / ANIMAL/LITTER PICK-UP / MISC TO ROADS - A/P /							
<b>LIVCO7 MORGAN STANLEY</b>	<b>MAR2024</b>	<b>03/14/2024</b>	<b>04/14/2024</b>	<b>10,000.00</b>		<b>10,000.00</b>	<b>10,000.00</b>			OPEB
201 000 513 000 000000 716 020 000000		10,000.00	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /							
<b>NORSTA NORTH STAR RANCH INC</b>	<b>300810</b>	<b>02/07/2027</b>	<b>03/07/2027</b>	<b>12,634.11</b>		<b>12,634.11</b>	<b>12,634.11</b>			GRAVEL - YARD
201 000 000 000 000000 109 000 000000		12,634.08	/ / / ROAD MATERIAL /							
201 000 467 101 000001 761 000 000000		0.03	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / GRAVEL PATCHING / GRAVEL /							
<b>CONCEN OCCUPATIONAL HEALTH CENTERS OF</b>	<b>715285285</b>	<b>02/29/2024</b>	<b>03/29/2024</b>	<b>126.00</b>		<b>126.00</b>	<b>126.00</b>			DOT PHYSICAL
201 000 513 000 000000 721 001 000000		126.00	DISTRIBUTIVE EXPENSE - FRINGE / / / DOT PHYSICALS /							
<b>ORCHIL OHM ADVISORS, INC.</b>	<b>72528</b>	<b>02/27/2024</b>	<b>03/27/2024</b>	7,095.00		7,095.00	7,095.00			BRIDGE INSPECTIONS
201 000 468 006 000042 819 000 000000		2,365.00	PRIMARY STRUCT MAINT CONSTRUCT / GREEN OAK TOWNSHIP / BRIDGE INSPECTION / BRIDGE INSPECTION /							
201 000 468 010 000042 819 000 000000		2,365.00	PRIMARY STRUCT MAINT CONSTRUCT / HOWELL TOWNSHIP / BRIDGE INSPECTION / BRIDGE INSPECTION /							
201 000 498 011 000042 819 000 000000		2,365.00	LOCAL STRUCT MAINTENANCE / ISOCO TOWNSHIP / BRIDGE INSPECTION / BRIDGE INSPECTION /							
	<b>72529</b>	<b>02/27/2024</b>	<b>03/27/2024</b>	14,596.00		14,596.00	14,596.00			PARSHALLVILLE
201 000 460 000 0053AO 802 003 000079		14,596.00	PRIMARY STRUCTURE HEY MAINT / / PARSHALVILLE RD BRIDGE #5840 / DESIGN / Design Engineering							
	<b>72530</b>	<b>02/27/2024</b>	<b>03/27/2024</b>	637.00		637.00	637.00			8 MILE CULVERT

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Number Name	Number Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 490 000 5092BO 802 003 000079	637.00 LOCAL STRUCT HEAVY MAINTENANCE // 8 MILE CULVERT REPLACEMENT / DESIGN / Design Engineering						
<b>72531</b>	<b>02/27/2024</b> 03/27/2024 2,149.50	2,149.50		2,149.50	2,149.50		RICKETT
201 000 490 000 5129BO 802 003 000079	2,149.50 LOCAL STRUCT HEAVY MAINTENANCE // RICKETT RD BRIDGE #5862 / DESIGN / Design Engineering						
<b>72532</b>	<b>02/27/2024</b> 03/27/2024 40,827.00	40,827.00		40,827.00	40,827.00		ARGENTINE
201 000 460 000 0069AO 802 003 000079	40,827.00 PRIMARY STRUCTURE HEY MAINT // ARGENTINE RD BRIDGE / DESIGN / Design Engineering						
<b>72533</b>	<b>02/27/2024</b> 03/27/2024 11,631.50	11,631.50		11,631.50	11,631.50		FAUSSETT
201 000 460 000 0052AO 802 001 000080	11,631.50 PRIMARY STRUCTURE HEY MAINT // FAUSSETT RD BRIDGE #5823 / CONSTRUCTION / Construction Engineering						
<b>72534</b>	<b>02/27/2024</b> 03/27/2024 20,153.50	20,153.50		20,153.50	20,153.50		COHOCTAH
201 000 460 000 0026AO 802 001 000080	20,153.50 PRIMARY STRUCTURE HEY MAINT // COHOCTAH RD BRIDGE / CONSTRUCTION / Construction Engineering						
		<b>97,089.50</b>		<b>97,089.50</b>	<b>97,089.50</b>		
<b>OPETEX OPEN TEXT INC.</b>	<b>2403868205</b>	<b>02/29/2024</b> 03/29/2024 <b>11.62</b>		<b>11.62</b>	<b>11.62</b>		FAXING
201 000 515 000 000000 851 000 000000	11.62 ADIMINISTRATIVE EXPENSE // TELEPHONE /						
<b>OREAUT OREILLY AUTO PARTS</b>	<b>3360-217816</b>	<b>01/11/2024</b> 02/11/2024 <b>23.99</b>		<b>23.99</b>	<b>23.99</b>		SENSOR
201 000 000 000 000000 108 000 000000	23.99 // NON-INVENTORY /						
<b>PAURIS PAUL RISNER</b>	<b>MAR2024</b>	<b>03/14/2024</b> 04/14/2024 <b>146.09</b>		<b>146.09</b>	<b>146.09</b>		INSURANCE
201 000 513 000 000000 716 020 000000	146.09 DISTRIBUTIVE EXPENSE - FRINGE // OPEB TRUST PAYMENT /						
<b>PITBOW PITNEY BOWES GLOBAL</b>	<b>3318846094</b>	<b>03/11/2024</b> 04/11/2024 <b>459.54</b>		<b>459.54</b>	<b>459.54</b>		POSTAGE MACHINE
201 000 515 000 000000 727 000 000000	459.54 ADIMINISTRATIVE EXPENSE // POSTAGE /						
<b>POMTIR POMP'S TIRE - FLINT</b>	<b>1510037530</b>	<b>03/06/2024</b> 04/06/2024 <b>130.00</b>		<b>130.00</b>	<b>130.00</b>		TIRES
201 000 511 000 000000 747 000 000000	130.00 INDIRECT // TIRES AND TUBES /						
<b>PRECOM PRECISION COMPUTER SOLUTIONS,</b>	<b>00043906</b>	<b>02/29/2024</b> 03/29/2024 <b>968.25</b>		<b>968.25</b>	<b>968.25</b>		SOFTWARE SUPPORT
201 000 515 000 000000 851 000 000000	968.25 ADIMINISTRATIVE EXPENSE // TELEPHONE /						
<b>PRAER PREMIER AERIAL &amp; FLEET INSPECT</b>	<b>29308</b>	<b>03/06/2024</b> 04/06/2024 <b>1,750.00</b>		<b>1,750.00</b>	<b>1,750.00</b>		TRAINING
201 000 514 000 000000 842 000 000000	1,750.00 DISTRIBUTIVE EXPENSE - OTHER // TRAINING COSTS /						
<b>PURCYL PURITY CYLINDER GASES, INC.</b>	<b>0001901108</b>	<b>02/27/2024</b> 03/27/2024 417.83		417.83	417.83		PROPANE / WELDING
201 000 511 000 000000 733 000 000000	348.51 INDIRECT // WELDING SUPPLIES /						

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Number Name	Number Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 511 000 000000 933 000 000000	69.32 INDIRECT / / / SHOP EQ-REPAIR/MAINTENANCE /						
<b>0001906543</b>	<b>03/01/2024</b> 04/01/2024	341.00		341.00	341.00		WELDING SUPPLIES
201 000 511 000 000000 733 000 000000	341.00 INDIRECT / / / WELDING SUPPLIES /						
<b>0001908051</b>	<b>03/05/2024</b> 04/05/2024	200.39		200.39	200.39		WELDING SUPPLIES
201 000 511 000 000000 733 000 000000	200.39 INDIRECT / / / WELDING SUPPLIES /						
		<b>959.22</b>		<b>959.22</b>	<b>959.22</b>		
<b>RANSER RANDY'S SERVICE</b>	<b>FEB 2024</b>						
201 000 512 000 901050 743 000 000000	659.87 OPERATING / / 901050 2018 PETERBILT MODEL 367 TAN SPRDR DUMP / DIESEL FUEL # 2 /			6,708.32	6,708.32		FUEL
201 000 512 000 901052 743 000 000000	402.35 OPERATING / / 901052 2019 PETERBILT MODEL 367 TAN SPRDR DUMP / DIESEL FUEL # 2 /						
201 000 512 000 902070 743 000 000000	168.86 OPERATING / / 902070 2019 JOHN DEERE 772G MOTOR GRADER / DIESEL FUEL # 2 /						
201 000 512 000 902074 743 000 000000	2,727.61 OPERATING / / 902074 MOTOR GADER / DIESEL FUEL # 2 /						
201 000 512 000 902075 743 000 000000	2,749.63 OPERATING / / 902075 2022 John Deere Motor Grader 772GP / DIESEL FUEL # 2 /						
	<b>I125778</b> <b>03/12/2024</b> 04/12/2024	1,276.00		1,276.00	1,276.00		TIRES
201 000 000 000 000000 108 000 000000	1,276.00 / / / NON-INVENTORY /						
		<b>7,984.32</b>		<b>7,984.32</b>	<b>7,984.32</b>		
<b>RATSAF RATHCO SAFETY SUPPLY, INC</b>	<b>180806</b>						
201 000 514 000 000000 768 000 000000	307.82 DISTRIBUTIVE EXPENSE - OTHER / / / SIGNS /			307.82	307.82		SIGNS
	<b>180807</b> <b>03/07/2024</b> 04/07/2024	84.00		84.00	84.00		SIGNS
201 000 514 000 000000 768 000 000000	84.00 DISTRIBUTIVE EXPENSE - OTHER / / / SIGNS /						
	<b>180808</b> <b>03/07/2024</b> 04/07/2024	55.00		55.00	55.00		SIGNS
201 000 514 000 000000 768 000 000000	55.00 DISTRIBUTIVE EXPENSE - OTHER / / / SIGNS /						
	<b>180809</b> <b>03/07/2024</b> 04/07/2024	499.50		499.50	499.50		SIGNS
201 000 514 000 000000 768 000 000000	499.50 DISTRIBUTIVE EXPENSE - OTHER / / / SIGNS /						
	<b>180810</b> <b>03/07/2024</b> 04/07/2024	38.50		38.50	38.50		SIGNS
201 000 514 000 000000 768 000 000000	38.50 DISTRIBUTIVE EXPENSE - OTHER / / / SIGNS /						
	<b>180811</b> <b>03/07/2024</b> 04/07/2024	165.00		165.00	165.00		SIGNS
201 000 514 000 000000 768 000 000000	165.00 DISTRIBUTIVE EXPENSE - OTHER / / / SIGNS /						
	<b>180812</b> <b>03/07/2024</b> 04/07/2024	678.16		678.16	678.16		SIGNS
201 000 514 000 000000 768 000 000000	678.16 DISTRIBUTIVE EXPENSE - OTHER / / / SIGNS /						
		<b>1,827.98</b>		<b>1,827.98</b>	<b>1,827.98</b>		
<b>REEPET REEFER PETERBILT</b>	<b>M20503</b>						
	<b>02/15/2024</b> 03/15/2024	347.00		347.00	347.00		SERVICE CALL



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201 000 000 000 000000 108 000 000000			347.00 / / / NON-INVENTORY /						
		<b>M20504</b>	<b>02/15/2024</b> 03/15/2024	286.00		286.00	286.00		SERVICE CALL
201 000 000 000 000000 108 000 000000			286.00 / / / NON-INVENTORY /						
		<b>R303504</b>	<b>03/06/2024</b> 04/06/2024	785.77		785.77	785.77		NOX SENSOR
201 000 000 000 000000 108 000 000000			785.77 / / / NON-INVENTORY /						
		<b>R303536</b>	<b>03/06/2024</b> 04/06/2024	740.75		740.75	740.75		SENSOR
201 000 000 000 000000 108 000 000000			740.75 / / / NON-INVENTORY /						
				<b>2,159.52</b>		<b>2,159.52</b>	<b>2,159.52</b>		
<b>RHISEE RHINO SEED AND LANDSCAPE</b>		<b>6013567</b>	<b>02/28/2024</b> 03/28/2024	600.00		600.00	600.00		SEED
201 000 467 101 000017 773 001 000000			600.00 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / SEEDING/FENCING/MAIL BOXES / SEED /						
		<b>6013610</b>	<b>02/29/2024</b> 03/29/2024	3,030.00		3,030.00	3,030.00		SEED
201 000 467 101 000017 773 001 000000			3,030.00 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / SEEDING/FENCING/MAIL BOXES / SEED /						
				<b>3,630.00</b>		<b>3,630.00</b>	<b>3,630.00</b>		
<b>SISRIC RICHARD SISSON TRUCKING, INC.</b>		<b>2575</b>	<b>03/01/2024</b> 04/01/2024	2,058.00		2,058.00	2,058.00		GRAVEL
201 000 497 015 000001 761 000 000000			2,058.00 LOCAL ROAD MAINTENANCE / TYRONE TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
		<b>2582</b>	<b>03/08/2024</b> 04/08/2024	12,427.50		12,427.50	12,427.50		GRAVEL
201 000 467 101 000001 761 000 000000			637.50 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / GRAVEL PATCHING / GRAVEL /						
201 000 467 102 000010 761 000 000000			1,530.00 PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SHOULDERS / GRAVEL /						
201 000 497 011 000001 761 000 000000			3,594.00 LOCAL ROAD MAINTENANCE / ISOCO TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 012 000001 761 000 000000			1,020.00 LOCAL ROAD MAINTENANCE / MARION TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 014 000001 761 000 000000			5,118.00 LOCAL ROAD MAINTENANCE / PUTNAM TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
201 000 497 015 000001 761 000 000000			528.00 LOCAL ROAD MAINTENANCE / TYRONE TOWNSHIP / GRAVEL PATCHING / GRAVEL /						
				<b>14,485.50</b>		<b>14,485.50</b>	<b>14,485.50</b>		
<b>ROAEQU ROAD EQUIPMENT PARTS</b>		<b>2400042616</b>	<b>02/29/2024</b> 03/29/2024	61.30		61.30	61.30		FITTINGS
201 000 000 000 000000 110 000 000000			61.30 / / / PARTS /						
		<b>2400042800</b>	<b>02/29/2024</b> 03/29/2024	61.30		61.30	61.30		FITTINGS
201 000 000 000 000000 110 000 000000			61.30 / / / PARTS /						
		<b>2400042808</b>	<b>02/29/2024</b> 03/29/2024	92.75		92.75	92.75		PURGE VALVE
201 000 000 000 000000 110 000 000000			92.75 / / / PARTS /						
		<b>2400044324</b>	<b>03/01/2024</b> 04/01/2024	77.80		77.80	77.80		RECEPTACLE
201 000 000 000 000000 110 000 000000			77.80 / / / PARTS /						

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		<b>2400046358</b>	<b>03/04/2024</b> 04/04/2024	106.43		106.43	106.43		HEIGHT CONTROL VALVE KIT
201 000 000 000 000000	110 000 000000		106.43 / / PARTS /						
		<b>2400046359</b>	<b>03/04/2024</b> 04/04/2024	106.43		106.43	106.43		HEIGHT CONTROL VALVE KIT
201 000 000 000 000000	110 000 000000		106.43 / / PARTS /						
		<b>2400053793</b>	<b>03/07/2024</b> 04/07/2024	251.00		251.00	251.00		DUSTSHIELD KIT
201 000 000 000 000000	110 000 000000		251.00 / / PARTS /						
		<b>2400057183</b>	<b>03/11/2024</b> 04/11/2024	16.87		16.87	16.87		SHOCK
201 000 000 000 000000	110 000 000000		16.87 / / PARTS /						
				<b>773.88</b>		<b>773.88</b>	<b>773.88</b>		
<b>HAUROD RODNEY HAUT</b>	<b>MAR2024</b>		<b>03/14/2024</b> 04/14/2024	<b>279.03</b>		<b>279.03</b>	<b>279.03</b>		INSURANCE
201 000 513 000 000000	716 020 000000		279.03 DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>ROSPES ROSE PEST SOLUTIONS</b>	<b>31112684</b>		<b>02/27/2024</b> 03/27/2024	<b>62.00</b>		<b>62.00</b>	<b>62.00</b>		PEST CONTROL
201 000 511 000 000000	931 001 000000		62.00 INDIRECT / / / BUILDING REPAIR - SHOP /						
<b>SAMSAR SAMSARA INC.</b>	<b>310519552821372</b>		<b>02/26/2024</b> 03/26/2024	<b>472.00</b>		<b>472.00</b>	<b>472.00</b>		GPS FOR NEW EQUIPMENT
201 000 511 000 000000	807 000 000000		472.00 INDIRECT / / / DATA PROCESSING/COMP SUPPLIES /						
<b>SHACHE SHAHEEN CHEVROLET</b>	<b>2869582</b>		<b>03/01/2024</b> 04/01/2024	198.00		198.00	198.00		GUARD
201 000 000 000 000000	108 000 000000		198.00 / / / NON-INVENTORY /						
		<b>2871509</b>	<b>03/04/2024</b> 04/04/2024	1,352.00		1,352.00	1,352.00		RADIATOR
201 000 000 000 000000	108 000 000000		1,352.00 / / / NON-INVENTORY /						
		<b>2876623</b>	<b>03/11/2024</b> 04/11/2024	72.49		72.49	72.49		PIPE
201 000 000 000 000000	108 000 000000		72.49 / / / NON-INVENTORY /						
				<b>1,622.49</b>		<b>1,622.49</b>	<b>1,622.49</b>		
<b>SHEWIL SHERWIN-WILLIAMS</b>	<b>0842 5</b>		<b>01/04/2024</b> 02/04/2024	1,985.18		1,985.18	1,985.18		PAINT
201 000 511 000 000000	932 000 000000		1,985.18 INDIRECT / / / YARD & GROUND /						
		<b>0973-8</b>	<b>01/07/2024</b> 02/07/2024	-112.37		-112.37	-112.37		TAX REFUND
201 000 511 000 000000	932 000 000000		-112.37 INDIRECT / / / YARD & GROUND /						
		<b>3569-2</b>	<b>03/11/2024</b> 04/11/2024	31.06		31.06	31.06		PAINT SUPPLIES
201 000 511 000 000000	932 000 000000		31.06 INDIRECT / / / YARD & GROUND /						

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Number Name	Number Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
		<b>1,903.87</b>		<b>1,903.87</b>	<b>1,903.87</b>		
<b>SHUEQU SHULTS EQUIPMENT, LLC.</b>	<b>0108463-IN</b>	<b>02/23/2024</b>	03/23/2024	3,949.00			BLADES
201 000 000 000 000000 108 000 000000		1,168.34	/ / / NON-INVENTORY /				
201 000 000 000 000000 110 000 000000		2,780.66	/ / / PARTS /				
	<b>0108482-IN</b>	<b>03/08/2024</b>	04/08/2024	1,597.45			BLADES
201 000 000 000 000000 108 000 000000		1,597.45	/ / / NON-INVENTORY /				
		<b>5,546.45</b>		<b>5,546.45</b>	<b>5,546.45</b>		
<b>SINSOU SINGLE SOURCE BRIGHTON MI-9011</b>	<b>8211957</b>	<b>02/26/2024</b>	03/26/2024	658.52			PAINT SUPPLIES
201 000 000 000 000000 108 000 000000		658.52	/ / / NON-INVENTORY /				
	<b>8214304</b>	<b>02/27/2024</b>	03/27/2024	425.81			PAINT SUPPLIES
201 000 000 000 000000 108 000 000000		425.81	/ / / NON-INVENTORY /				
	<b>8225083</b>	<b>03/04/2024</b>	04/04/2024	93.71			PAINT SUPPLIES
201 000 000 000 000000 108 000 000000		93.71	/ / / NON-INVENTORY /				
	<b>8227072</b>	<b>03/04/2024</b>	04/04/2024	63.60			PAINT SUPPLIES
201 000 000 000 000000 108 000 000000		63.60	/ / / NON-INVENTORY /				
	<b>8233669</b>	<b>03/07/2024</b>	04/07/2024	335.08			PAINT SUPPLIES
201 000 000 000 000000 108 000 000000		335.08	/ / / NON-INVENTORY /				
		<b>1,576.72</b>		<b>1,576.72</b>	<b>1,576.72</b>		
<b>SNAEQU SNAP-ON INDUSTRIAL</b>	<b>ARS/16897183</b>	<b>02/26/2024</b>	03/26/2024	<b>669.00</b>			SHOPE EQ. REPAIR
201 000 511 000 000000 935 003 000000		669.00	INDIRECT / / / SHOP EQUIPMENT (TOOLS) /				
<b>STAADV STAPLES ADVANTAGE</b>	<b>8073526505</b>	<b>03/08/2024</b>	04/08/2024	<b>342.43</b>			OFFICE SUPPLIES
201 000 515 000 000000 728 000 000000		342.43	ADIMINISTRATIVE EXPENSE / / / OFFICE SUPPLIES /				
<b>RICSTE STEVEN T. RICHMOND</b>	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>297.62</b>			INSURANCE
201 000 513 000 000000 716 020 000000		297.62	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /				
<b>SUBSTR SUBSTRATA</b>	<b>4199</b>	<b>03/01/2024</b>	04/01/2024	<b>24,273.00</b>			PERMA-ZYME
201 000 459 000 0078AV 823 001 000088		16,182.00	PRIMARY ROAD HEAVY MAINTENANCE / / ANTCLIFF RD / MISC. TO ROADS -SOIL STAB. ENZ / PERMA-ZYME				
201 000 489 005 5134BV 823 001 000088		8,091.00	LOCAL ROAD HEAVY MAINTENANCE / GENOA TOWNSHIP / KELLOGG RD / MISC. TO ROADS -SOIL STAB. ENZ / PERMA-ZYME				

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Livingston County Road Commission  
AP - Payment Selection Distribution Detail

Vendor	Invoice	Gross	Discount	Net	Pay	Discount	
Number Name	Number Date Due Date	Amount	Amount	Amount	Amount	Lost	Comments
<b>SUPSAW SUPERIOR SAW INC</b> 201 000 511 000 000000 935 003 000000	<b>75135</b> 02/28/2024 03/28/2024 97.65 INDIRECT / / / SHOP EQUIPMENT (TOOLS) /	97.65		97.65	97.65		SHOPEQ
201 000 000 000 000000 108 000 000000	<b>75576</b> 03/04/2024 04/04/2024 7.99 / / / NON-INVENTORY /	7.99		7.99	7.99		SPROCKET
		<b>105.64</b>		<b>105.64</b>	<b>105.64</b>		
<b>TERPAL TERRY PALMER</b> 201 000 513 000 000000 716 020 000000	<b>MAR2024</b> 03/14/2024 04/14/2024 198.64 DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /	<b>198.64</b>		<b>198.64</b>	<b>198.64</b>		INSURANCE
<b>TERWIN TERRY WINNIE</b> 201 000 513 000 000000 716 020 000000	<b>MAR2024</b> 03/14/2024 04/14/2024 300.00 DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /	<b>300.00</b>		<b>300.00</b>	<b>300.00</b>		INSURANCE
<b>TETTEC TETRA TECH INC.</b> 201 000 459 000 0019AW 802 003 000079	<b>52206582</b> 02/28/2024 03/28/2024 3,776.31 PRIMARY ROAD HEAVY MAINTENANCE / / 2023 OLD US 23 / DESIGN / Design Engineering	3,776.31		3,776.31	3,776.31		OLD US23
201 000 459 000 0070AT 802 000 000080	<b>52206583</b> 02/28/2024 03/28/2024 162.99 PRIMARY ROAD HEAVY MAINTENANCE / / CHALLIS RD/BAUER RD RAB / ENGINEERING SERVICES / Construction Engineering	162.99		162.99	162.99		CHALLIS BAUER
201 000 459 000 0073AX 802 003 000079	<b>52206584</b> 02/28/2024 03/28/2024 20,437.47 PRIMARY ROAD HEAVY MAINTENANCE / / GRAND RIVER AVE / DESIGN / Design Engineering	20,437.47		20,437.47	20,437.47		KENSINGTON
201 000 459 000 0077AT 802 003 000079	<b>52206586</b> 02/28/2024 03/28/2024 6,389.64 PRIMARY ROAD HEAVY MAINTENANCE / / GOLF CLUB AT EAGER / DESIGN / Design Engineering	6,389.64		6,389.64	6,389.64		GOLF CLUB / EAGER
201 000 459 000 0076AT 802 003 000079	<b>52206589</b> 02/28/2024 03/28/2024 908.64 PRIMARY ROAD HEAVY MAINTENANCE / / HACKER AT HYNE / DESIGN / Design Engineering	908.64		908.64	908.64		HACKER
201 000 459 000 0075AT 802 003 000079	<b>52206590</b> 02/28/2024 03/28/2024 6,440.47 PRIMARY ROAD HEAVY MAINTENANCE / / 2025 RUSHTON RD. / DESIGN / Design Engineering	6,440.47		6,440.47	6,440.47		RUSHTON / DOANE
201 000 459 000 0042AS 802 000 000080	<b>52206591</b> 02/28/2024 03/28/2024 16,151.85 PRIMARY ROAD HEAVY MAINTENANCE / / GRAND RIVER AVE @ BURKHART / ENGINEERING SERVICES / Construction Engineering	16,151.85		16,151.85	16,151.85		GR / BURKHART
201 000 459 000 0043AS 802 000 000080	<b>52206593</b> 02/28/2024 03/28/2024 972.27 PRIMARY ROAD HEAVY MAINTENANCE / / GRAND RIVER @ ST. JOE WOODLAND / ENGINEERING SERVICES / Construction Engineering	972.27		972.27	972.27		GR ST JOES
		<b>55,239.64</b>		<b>55,239.64</b>	<b>55,239.64</b>		
<b>THATCH THATCH COMPUTER CONSULTING</b> 201 000 515 000 000000 807 000 000000	<b>27897</b> 01/31/2024 02/29/2024 15.01 ADIMINISTRATIVE EXPENSE / / / DATA PROCESSING/COMP SUPPLIES /	15.01		15.01	15.01		IT SERVICE

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## Livingston County Road Commission AP - Payment Selection Distribution Detail

----- Vendor ----- Number Name	----- Invoice ----- Number	Date	Due Date	Gross Amount	Discount Amount	Net Amount	Pay Amount	Discount Lost	Comments
201 000 515 000 000000 807 000 000000	<b>28078</b>	<b>02/29/2024</b>	03/29/2024	2,454.96		2,454.96	2,454.96		IT SERVICE
		2,454.96	ADIMINISTRATIVE EXPENSE / / / DATA PROCESSING/COMP SUPPLIES /						
		<b>2,469.97</b>				<b>2,469.97</b>	<b>2,469.97</b>		
<b>DIRTOM THOMAS DIROFF</b> 201 000 513 000 000000 716 020 000000	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>230.08</b>		<b>230.08</b>	<b>230.08</b>		INSURANCE
		230.08	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>TRAHIN TRACEY HINES</b> 201 000 513 000 000000 716 020 000000	<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>274.91</b>		<b>274.91</b>	<b>274.91</b>		INSURANCE
		274.91	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /						
<b>TRUTRI TRUCK &amp; TRAILER</b> 201 000 000 000 000000 110 000 000000	<b>HSO015084</b>	<b>02/28/2024</b>	03/28/2024	29.22		29.22	29.22		PIN
		29.22	/ / / PARTS /						
201 000 000 000 000000 110 000 000000	<b>HSO015113</b>	<b>02/28/2024</b>	03/28/2024	1,557.22		1,557.22	1,557.22		HYD MOTOR
		1,557.22	/ / / PARTS /						
201 000 000 000 000000 108 000 000000	<b>HSO015126</b>	<b>03/01/2024</b>	04/01/2024	154.04		154.04	154.04		SHOVEL HOLDER
		154.04	/ / / NON-INVENTORY /						
201 000 000 000 000000 110 000 000000	<b>HSO015169</b>	<b>03/08/2024</b>	04/08/2024	488.45		488.45	488.45		VALVE / SPRING
		488.45	/ / / PARTS /						
201 000 000 000 000000 108 000 000000	<b>HSO015175</b>	<b>03/11/2024</b>	04/11/2024	119.66		119.66	119.66		FITTINGS
		26.76	/ / / NON-INVENTORY /						
201 000 000 000 000000 110 000 000000		92.90	/ / / PARTS /						
				<b>2,348.59</b>		<b>2,348.59</b>	<b>2,348.59</b>		
<b>UPS000 UPS</b> 201 000 515 000 000000 727 000 000000	<b>00001AT443074</b>	<b>02/17/2024</b>	03/17/2024	31.08		31.08	31.08		POSTAGE
		31.08	ADIMINISTRATIVE EXPENSE / / / POSTAGE /						
201 000 515 000 000000 727 000 000000	<b>00001AT443094</b>	<b>03/02/2024</b>	04/02/2024	6.66		6.66	6.66		POSTAGE
		6.66	ADIMINISTRATIVE EXPENSE / / / POSTAGE /						
				<b>37.74</b>		<b>37.74</b>	<b>37.74</b>		
<b>VC3INC VC3 INC</b> 201 000 515 000 000000 807 000 000000	<b>142072</b>	<b>03/12/2024</b>	04/12/2024	<b>319.50</b>		<b>319.50</b>	<b>319.50</b>		365 LICENESE
		319.50	ADIMINISTRATIVE EXPENSE / / / DATA PROCESSING/COMP SUPPLIES /						
<b>VERWIR VERIZON WIRELESS</b> 201 000 511 000 000000 851 000 000000	<b>9957404201</b>	<b>02/23/2024</b>	03/23/2024	<b>990.30</b>		<b>990.30</b>	<b>990.30</b>		PHONES
		442.63	INDIRECT / / / TELEPHONE /						

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Livingston County Road Commission  
AP - Payment Selection Distribution Detail

----- Vendor -----		----- Invoice -----		Gross	Discount	Net	Pay	Discount		
Number	Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 514 000 000000 851 000 000000		444.35	DISTRIBUTIVE EXPENSE - OTHER / / / TELEPHONE /							
201 000 515 000 000000 851 000 000000		103.32	ADIMINISTRATIVE EXPENSE / / / TELEPHONE /							
<b>NEWWALWALTON A. NEWTON</b>		<b>MAR2024</b>	<b>03/14/2024</b>	04/14/2024	<b>292.97</b>		<b>292.97</b>			INSURANCE
201 000 513 000 000000 716 020 000000		292.97	DISTRIBUTIVE EXPENSE - FRINGE / / / OPEB TRUST PAYMENT /							
<b>WHICAP WHITE CAP LP</b>		<b>50025771898</b>	<b>03/08/2024</b>	04/08/2024	<b>510.00</b>		<b>510.00</b>			DRAINAGE
201 000 467 101 000013 775 000 000000		510.00	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS GRAVEL / DRAINAGE / DRAINAGE / EROSION /							
<b>WILTAN WILLIAM SMITH</b>		<b>1853</b>	<b>03/01/2024</b>	04/01/2024	<b>800.00</b>		<b>800.00</b>			TANK RENTAL
201 000 467 102 000032 766 000 000000		800.00	PRIMARY ROAD MAINTENANCE / PRIMARY ROADS HARD SURFACE / SALTING / BRINE/CHLORIDE /							
				<b>Report Totals</b>	<b>510,571.45</b>		<b>510,571.45</b>			

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Livingston County Road Commission  
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----- Check -----		----- Vendor -----		Check
Number	Date	Number	Name	Amount
95219	03/15/2024	BCBSMA	BCBS MICHIGAN-MEDICARE	3,239.93
95220	03/15/2024	BLUCRO	BCBS OF MI - MOS	74,258.28
95221	03/15/2024	CULEXC	CULVER EXCAVATING, INC.	78,382.00
95222	03/15/2024	DIEEQU	DIESEL EQ SALES & SERVICE	555.55
95223	03/15/2024	DIVCRE	DIVERSIFIED CREATIONS	411.51
95224	03/15/2024	DETED1	DTE ENERGY	3,204.14
95225	03/15/2024	FYKWAS	FYKE WASHED SAND & GRAVEL INC.	1,878.51
95226	03/15/2024	GBMREC	GBM RECYCLED CONCRETE,CO.	4,240.94
95227	03/15/2024	GBMSAN	GBM SAND & GRAVEL, INC	21,793.20
95228	03/15/2024	GEOMES	GEORGE MESSNER	226.53
95229	03/15/2024	GIEGLE	GIEGLER'S FEED-SEED	8,122.50
95230	03/15/2024	HOMDEP	HOME DEPOT CREDIT SERVICES	468.33
95231	03/15/2024	JACMAR	JACK MARSHALL	184.45
95232	03/15/2024	LIVCO2	LIVINGSTON COUNTY DRAIN COMMISSIONER - SU	890.58
95233	03/15/2024	GROMAR	MARK D. GROSS OR MDG INTERIOR MAINT. SERV.	1,400.00
95234	03/15/2024	HARMAR	MARK HART	298.50
95235	03/15/2024	MEDLIF	MEDMUTUAL LIFE	2,543.44
95236	03/15/2024	LIVCO7	MORGAN STANLEY	10,000.00
95237	03/15/2024	RANSER	RANDY'S SERVICE	7,984.32
95238	03/15/2024	HAUROD	RODNEY HAUT	279.03
95239	03/15/2024	SHEWIL	SHERWIN-WILLIAMS	1,903.87
95240	03/15/2024	RICSTE	STEVEN T. RICHMOND	297.62
95241	03/15/2024	TERWIN	TERRY WINNIE	300.00
95242	03/15/2024	DIRTOM	THOMAS DIROFF	230.08
95243	03/15/2024	TRAHIN	TRACEY HINES	274.91
95244	03/15/2024	VERWIR	VERIZON WIRELESS	990.30
95245	03/15/2024	WILTAN	WILLIAM SMITH DBA WILL TANK RENTAL	800.00

Report Total

225,158.52

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Livingston County Road Commission  
AP - ACH Remittance Register

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-----Remittance -----		----- Vendor -----		Remittance
Number	Date	Number	Name	Amount
2216	03/15/2024	ATMMAI	ACTION TRAFFIC MAINTENANCE INC	1,690.00
2217	03/15/2024	ADVAUT	ADVANCED AUTO PARTS	465.55
2218	03/15/2024	AISCON	AIS CONSTRUCTION EQ., INC	449.49
2219	03/15/2024	ALMBOL	ALMA BOLT COMPANY	144.10
2220	03/15/2024	ALRSTE	ALRO STEEL CORP.	276.22
2221	03/15/2024	SYNAMA	AMAZON CAPITAL SERVICES	229.44
2222	03/15/2024	AUTONE	AUTO ONE HOWELL	339.99
2223	03/15/2024	AUTON1	AUTO ONE OF BRIGHTON	499.95
2224	03/15/2024	KNABAR	BARBARA KNAPP	178.75
2225	03/15/2024	BEARES	BEAVER RESEARCH COMPANY	279.94
2226	03/15/2024	BIGWAT	BIG WATER TECHNOLOGIES CORP.	293.46
2227	03/15/2024	CDWGOV	CDW GOVERNMENT, INC	516.78
2228	03/15/2024	CHRTRE	CHRIS` TREE SERVICE, LLC	7,000.00
2229	03/15/2024	CINFAS	CINTAS FIRST AID & SAFETY	739.30
2230	03/15/2024	COMCAR	COMERICA COMMERCIAL CARD SRVC	2,368.13
2231	03/15/2024	CONPO4	CONSUMERS ENERGY	44.10
2232	03/15/2024	CORREC	CORRIGAN RECORD STORAGE LLC	54.72
2233	03/15/2024	CORTOW	CORRIGAN TOWING	176.30
2234	03/15/2024	CSXGOV	CSXT GOV BILLING	2,500.00
2235	03/15/2024	CUMBRI	CUMMINS SALES AND SERVICE	797.63
2236	03/15/2024	MACDEN	DENISE MACK	270.52
2237	03/15/2024	DEVTEC	DEVEN'S TECH SUPPLY, INC.	428.20
2238	03/15/2024	DIAMOW	DIAMOND MOWERS LLC	201.14
2239	03/15/2024	FALROA	FALCON ROAD MAINTENANCE	48.23
2240	03/15/2024	FLEADM	FLEX ADMINISTRATORS, INC.	60.00
2241	03/15/2024	FLINEW	FLINT NEW HOLLAND, INC.	1,025.53
2242	03/15/2024	FREMAR	FREDERICK MARR	300.00
2243	03/15/2024	GRAING	GRAINGER	815.61
2244	03/15/2024	HUTSON	HUTSON, INC	73.00
2245	03/15/2024	JACTRU	JACKSON TRUCK SERVICE, INC	306.37
2246	03/15/2024	HEIJEA	JEANNIE L. HEIER	205.90
2247	03/15/2024	HOSJER	JERRY HOSKINS	294.90
2248	03/15/2024	JOHPLU	JOHNSON PLUMBING AND	7,350.00
2249	03/15/2024	KIMMID	KIMBALL MIDWEST	481.31
2250	03/15/2024	BREBUR	LAW OFFICE OF PAUL E. BURNS	5,338.00
2251	03/15/2024	LOWESO	LOWE'S	665.78
2252	03/15/2024	LYDOIL	LYDEN OIL COMPANY	8,312.79
2253	03/15/2024	MARRUT	MARK RUTTMAN	178.75
2254	03/15/2024	CRAMIC	MICHAEL CRAINE	175.48
2255	03/15/2024	HOLMIC	MICHAEL HOLCOMB	296.05
2256	03/15/2024	MICTRA	MICHIGAN CAT	549.54
2257	03/15/2024	MICHIG	MICHIGAN HIGHWAY HAZARD	5,730.00
2258	03/15/2024	NORSTA	NORTH STAR RANCH INC	12,634.11
2259	03/15/2024	CONCEN	OCCUPATIONAL HEALTH CENTERS OF	126.00
2260	03/15/2024	ORCHIL	OHM ADVISORS, INC.	97,089.50
2261	03/15/2024	OPETEX	OPEN TEXT INC.	11.62
2262	03/15/2024	OREAUT	OREILLY AUTO PARTS	23.99
2263	03/15/2024	PAURIS	PAUL RISNER	146.09
2264	03/15/2024	PITBOW	PITNEY BOWES GLOBAL	459.54



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Livingston County Road Commission  
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-----Remittance -----		----- Vendor -----		Remittance
Number	Date	Number	Name	Amount
2265	03/15/2024	POMTIR	POMP'S TIRE - FLINT	130.00
2266	03/15/2024	PRECOM	PRECISION COMPUTER SOLUTIONS,	968.25
2267	03/15/2024	PREAER	PREMIER AERIAL & FLEET INSPECT	1,750.00
2268	03/15/2024	PURCYL	PURITY CYLINDER GASES, INC.	959.22
2269	03/15/2024	RATSAF	RATHCO SAFETY SUPPLY, INC	1,827.98
2270	03/15/2024	REEPET	REEFER PETERBILT	2,159.52
2271	03/15/2024	RHISEE	RHINO SEED AND LANDSCAPE	3,630.00
2272	03/15/2024	SISRIC	RICHARD SISSON TRUCKING, INC.	14,485.50
2273	03/15/2024	ROAEQU	ROAD EQUIPMENT PARTS	773.88
2274	03/15/2024	ROSPES	ROSE PEST SOLUTIONS	62.00
2275	03/15/2024	SAMSAR	SAMSARA INC.	472.00
2276	03/15/2024	SHACHE	SHAHEEN CHEVROLET	1,622.49
2277	03/15/2024	SHUEQU	SHULTS EQUIPMENT, LLC.	5,546.45
2278	03/15/2024	SINSOU	SINGLE SOURCE BRIGHTON MI-9011	1,576.72
2279	03/15/2024	SNAEQU	SNAP-ON INDUSTRIAL	669.00
2280	03/15/2024	STAADV	STAPLES ADVANTAGE	342.43
2281	03/15/2024	SUBSTR	SUBSTRATA	24,273.00
2282	03/15/2024	SUPSAW	SUPERIOR SAW INC	105.64
2283	03/15/2024	TERPAL	TERRY PALMER	198.64
2284	03/15/2024	TETTEC	TETRA TECH INC.	55,239.64
2285	03/15/2024	THATCH	THATCH COMPUTER CONSULTING	2,469.97
2286	03/15/2024	TRUTR1	TRUCK & TRAILER	2,348.59
2287	03/15/2024	UPS000	UPS	37.74
2288	03/15/2024	VC3INC	VC3 INC	319.50
2289	03/15/2024	NEWWAL	WALTON A. NEWTON	292.97
2290	03/15/2024	WHICAP	WHITE CAP LP	510.00

Report Total

285,412.93

## March 14, 2024

BALANCE ON HAND AND INVESTED	03/01/2024	\$23,653,171.95
PAYROLL WEEK ENDING	03/10/2024	(\$198,835.36)
GENERAL -	03/14/2024	(\$510,571.45)
CASH RECEIPTS, REVENUE VOUCHERS - INTEREST		\$3,184,775.36
AVAILABLE		\$26,128,540.50
PAYROLL WEEK ENDING	03/24/2024	
GENERAL -	03/28/2024	
CASH RECEIPTS, REVENUE VOUCHERS - INTEREST		\$3,184,775.36
BALANCE ON HAND AND INVESTED		\$26,128,540.50

## INVESTMENTS

AMOUNT	TERMS	INTEREST	MATURITY DATE
\$250,000	49 DAYS @ 4.75%	1,616.31	03/28/24
\$1,500,000	168 DAYS @ 5.30%	37,100.00	03/28/24
\$500,000	182 DAYS @ 5.26%	13,113.97	04/11/24
\$1,000,000	168 DAYS @ 5.00%	23,013.70	04/11/24
\$1,000,000	182 DAYS @ 5.40%	26,926.03	04/25/24
\$1,800,000	174 DAYS @ 5.30%	46,110.00	04/25/24
\$300,000	147 DAYS @ 5.25%	6,431.25	05/09/24
\$1,100,000	182 DAYS @ 5.00%	27,805.55	05/09/24
\$550,000	94 DAYS @ 5.19%	7,351.32	05/09/24
\$2,275,000	170 DAYS @ 4.80%	51,566.66	05/23/24
\$1,000,000	84 DAYS @ 5.2%	12,133.33	05/23/24
\$300,000	175 DAYS @ 5.30%	7,729.16	06/06/24
\$2,000,000	168 DAYS @ 5.13%	47,224.10	06/13/24
\$250,000	175 DAYS @ 5.13%	6,148.97	06/20/24
\$800,000	182 DAYS @ 5.02%	19,009.71	06/27/24
\$2,100,000	175 DAYS @ 5.15%	51,852.74	06/27/24
\$300,000	181 DAYS @ 5.03%	8,480.56	07/03/24
\$1,650,000	182 DAYS @ 4.60%	38,371.66	07/11/24
\$250,000	189 DAYS @ 4.60%	6,037.50	07/18/24
\$1,600,000	171 DAYS @ 5.19%	38,903.67	07/25/24
\$475,000	139 DAYS @ 4.87%	8,931.71	07/25/24
\$250,000	203 DAYS @ 4.60%	6,484.72	08/01/24
\$245,000	153 DAYS @ 4.83%	5,029.23	08/15/24
\$245,000	174 DAYS @ 5.10%	6,039.25	08/29/24
\$4,375,000			
<b>\$26,115,000</b>	<b>TOTAL</b>	<b>503,411.10</b>	

## MTF Performance

Month Received	Collections Representing	2021	2022	2023	2024 Forecast	2024 Actual	Variance from Forecast	Percent Variance from Forecast
March	January	\$2,287,996	\$2,339,263	\$2,439,338	\$2,439,338	\$2,436,634	(\$2,704)	-0.11%
April	February	\$2,239,770	\$2,487,707	\$2,482,448	\$2,482,448			
May	March	\$2,125,038	\$2,263,752	\$2,334,026	\$2,334,026			
June	April	\$2,255,782	\$2,204,804	\$2,212,081	\$2,212,081			
July	May	\$2,002,715	\$2,008,607	\$2,431,592	\$2,431,592			
August	June	\$2,188,606	\$2,209,837	\$2,407,298	\$2,407,298			
September	July	\$1,874,496	\$1,910,986	\$2,154,989	\$2,154,989			
October	August	\$2,325,094	\$2,213,462	\$2,284,125	\$2,284,125			
November	September	\$2,368,872	\$2,360,066	\$2,187,529	\$2,187,529			
December	October	\$1,683,755	\$1,816,017	\$2,111,088	\$2,111,088			
January	November	\$2,061,702	\$2,045,495	\$2,253,211	\$2,061,702			
February	December	\$2,670,078	\$2,952,108	\$3,090,170	\$2,070,418			
<b>Total for Budget Year</b>		<b>\$26,083,904</b>	<b>\$26,812,104</b>	<b>\$28,387,895</b>	<b>\$27,176,634</b>	<b>\$2,436,634</b>	<b>(\$2,704)</b>	<b>-0.01%</b>

# Current Annualized Vehicle Registration Average Livingston County, Michigan

