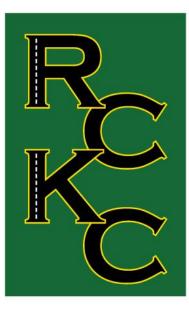


Road Commission of Kalamazoo County

# ANNUAL REPORT



Road Commission of Kalamazoo County

# 2021 ANNUAL REPORT

YOUR LOCAL ROAD PROFESSIONALS SINCE 1909

www.kalamazoocountyroads.com

\_

RCKC Overview	Page 3
Meet the Board	Page 4
Meet the Team	Page 5
Introduction	Page 6
Project Selection	Page 7
Service Requests	Page 8
Contact Us	Page 9
Achievements	Page 10
Awards and Recognition	Page 11
Public Outreach	Page 12-13
Glossary	Page 14-17
Financial Highlights	Page 18-21
Local Bridges	Page 22
Local Road Participation Fund	Page 23
Non-Motorized Facilities	Page 24
Winter Maintenance	Page 25
Revenue and Expenditure	Page 26-27
Projects and Road Conditions	Page 28
Asset Management	Page 29
Kalamazoo County	Page 30-31
Alamo Township	Page 32-33
Brady Township	Page 34-35
Charleston Township	Page 36-37
Climax Township	Page 38-39
Comstock Township	Page 40-41
Cooper Township	Page 42-43
Kalamazoo Township	Page 44-45
Oshtemo Township	Page 46-47
Pavilion Township	Page 48-49
Prairie Ronde Township	Page 50-51
Richland Township	Page 52-53
Ross Township	Page 54-55
Schoolcraft Township	Page 56-57
Texas Township	Page 58-59
Wakeshma Township	Page 60-61
Facts and Figures	Page 62-63

# RCKC OVERVIEW

# **MEET THE BOARD**

The Road Commission is governed by a board of five Road Commissioners who represent the public at large, and are appointed by the Kalamazoo County Board of Commissioners. Our Road Commissioners annually review township representation to be a liaison and additional communication link as noted below.



**THOM BRENNAN** 

Mr. Brennan, Chair, was appointed to the road commission in March of 2019. **Township liaison for Alamo, Oshtemo, and Richland townships.** 

#### DAVID C. PAWLOSKI

Mr. Pawloski, Vice Chair, was appointed to the Road Commission in March of 2017. Township liaison for Prairie Ronde, Schoolcraft, and Texas townships.





#### LARRY STEHOUWER

Mr. Stehouwer, Member, was appointed to the Road Commission in March of 2017. Township liaison for Comstock, Pavilion, and Ross townships.

#### **MICHAEL BOERSMA**

Mr. Boersma, Member, was appointed to the Road Commission in March of 2019. Township liaison for Cooper, Kalamazoo, and Wakeshma townships.





#### **KESHIA DICKASON**

Ms. Dickason, Member, was appointed to the Road Commission in February of 2021. **Township liaison for Brady, Climax, and Charleston townships.** 

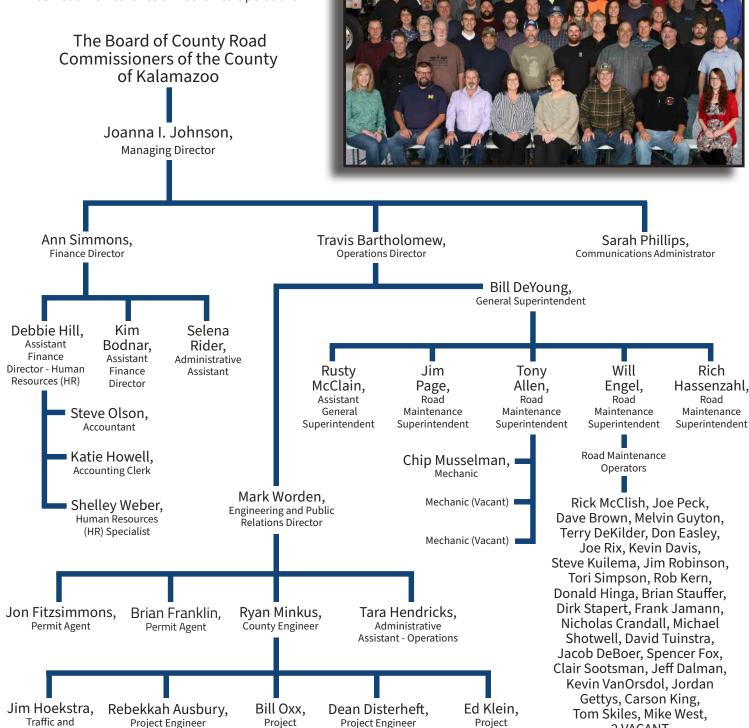
The Board's regular meetings, to which the public is invited, are held at 3:00 p.m. on alternate Tuesdays at the Road Commission office, 3801 East Kilgore Road, Kalamazoo, Michigan. A meeting schedule can also be found on the Meetings section of the RCKC website at https://www.kalamazoocountyroads.com/meetings.php.
From time to time, additional special board meetings are held, and joint meetings are scheduled with townships throughout the county annually.



structure as of December 31, 2021 59 RCKC Employees Total (includes 4 VACANT) 26 Administration Employees 33 Road Maintenance & Mechanics-Operations

This organizational chart reflects the RCKC's

**Project Engineer** 



Superintendent

2 VACANT

Superintendent

## **THE RCKC ANNUAL REPORT:** A CITIZEN'S GUIDE TO PUBLIC SERVICE EFFORTS

# Introduction

The goal of the Board of County Road Commissioners of the County of Kalamazoo is using our expertise, energy, and funds to provide the safest and most convenient road system possible, and to contribute to economic development and high quality of life throughout the county.

The Road Commission of Kalamazoo County (RCKC) has provided a brief overview of our funding, operations, and assets within this report. Additional financial and audit information, publications, and resources can be found on our website at www. kalamazoocountyroads.com.

This report provides a citizen's guide to the efforts by the RCKC in public service. These efforts are on-going and continuously developed to meet the needs of our changing reality, while improving our infrastructure. Our work is never complete and we will continue to be focused on continuous improvement, leadership and public service. Our goal is to be the BEST road commission in the State. This is only accomplished by our team of employees vested in the spirit of leadership, and service. Thank you for allowing us the opportunity to serve you.

The RCKC is the jurisdictional authority over all public roads lying outside the incorporated cities and villages within Kalamazoo County, exclusive of any state trunkline highway. At the end of 2021, the RCKC maintained 1,270 miles of roads throughout the 576 squaremile county. The RCKC certified primary road system consists of 446 miles; the remaining 825 miles comprise the local road system. Along with the road system, the RCKC maintains bridges, traffic signs/signals, culverts, storm sewers, and roadsides throughout the county. The State's 83 county road agencies are responsible for approximately 90,000 miles of county roads.

#### PROJECT SELECTION

The RCKC establishes road improvement priorities for the primary road system. Annually, our staff develops an improvement plan spanning five years that is based on engineering assessments and onsite reviews. This plan is reviewed and projects undertaken based on current and future road needs and anticipated funding. On November 10, 2020 the RCKC adopted a \$70 million, five-year Primary Road Capital Improvement Plan (CIP) for the period 2021 through 2025. The plan includes such preservationstructural improvement projects as resurfacing, reconstructing and widening roads, upgrading certain roads to all-season status, safety projects, bridge replacements, upgrading traffic signals, and nonmotorized facilities.

For the local road system, the RCKC establishes road improvement priorities which are developed in conjunction with township governments. Each

township works with our team to develop a 5-year Local Road CIP supporting asset management for planning purposes and local road preservation. The RCKC maintains a local road participation (PAR) fund program that provides funds for each township that must be matched on a dollar-for-dollar basis for local road improvement projects. In 2021, the RCKC allocated \$2,045,000 toward this partnership which is a record breaking commitment to the local road program. Projects included local road preservation-structural improvement, preventive maintenance and construction projects such as chip seal, hot mix asphalt (HMA) overlays, and road reconstruction.

The financial commitment of townships and residents through the years has proven invaluable. These partnerships help provide better service to our joint constituencies and a long term collaborative effort. Also available for funding, under the provisions of Public Act (PA) 246, Public Acts of 1931, as amended, is the special assessment district option. The State statute provides an opportunity to fund local road improvement projects through the creation of a special assessment district. This can be initiated either by response to a township board resolution or by a petition of landowners. There was no special assessment district by a petition from landowners in 2021.

Local road and bridge revenue contributions may include township general funds, special assessment districts, millages, and private contributions. A current Township local road contribution summary in addition to PAR funds is noted below:

**Climax Township:** Local Road Millage renewed in 2014.

**Comstock Township:** Local Road Millage of 1.00 mills per Michigan Compiled Law (MCL) 247.670 approved in 2021 for 2022.

**Oshtemo Township:** Local Road Millage of 1.08 mills per MCL 247.670 approved in 2021 for 2022.

**Texas Township**: Township Special Assessment District PA 188, PA of 1954 from 2010, renewed and increased in 2020.

**Wakeshma Township:** Local Road Millage approved in 2019.

On August 26, 2014 the **RCKC** adopted the Title **VI Non-discrimination** Plan. We will continue to serve all people of the county of Kalamazoo, including minority populations, low-income populations, the elderly, persons with disabilities. and those who traverse the State of Michigan. The RCKC recognizes its responsibility to provide fairness and equity in all of its programs, services, and activities, and that it must abide by and enforce federal and state civil rights legislation.



7



# **SERVICE REQUESTS**

In addition to our regularly scheduled projects and maintenance, the RCKC receives service requests daily. These service requests range from administrative functions, like requesting maps, to safety concerns, like debris in the roadway.

You can see all service requests received in 2021 in the provided chart, ordered from most to least received number of service requests.

Service requests can be submitted through the website on the Service Requests page. The current list of Active and Pending Service Requests can also be found on our website.

# TOTAL NUMBER OF SERVICE REQUESTS RECEIVED IN 2021 5278



To Submit a Service Request, Visit: https://www.kalamazoocountyroads.com/contact.php This process is the most efficient and effective method of communication for any service needs on our road network.

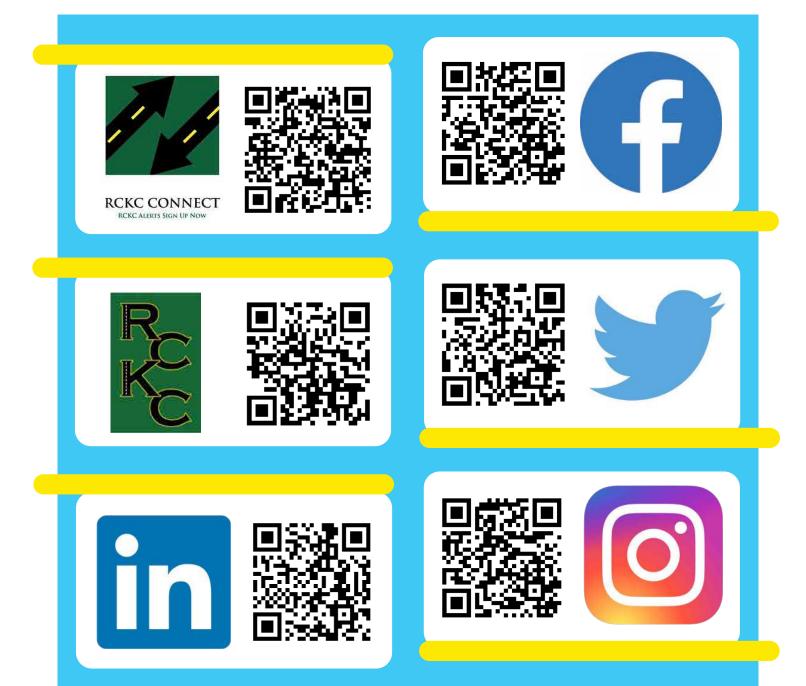
Request Requ	ber of lests ived:
Tree	1158
Pothole	530
Sign	514
Drainage	475
Question	381
Winter Maintenance	333
Shoulders	262
Investigate Situation	252
Traffic Signals	245
Gravel Road	150
Mailbox	109
Thank You	105
Sight Obstruction	100
Not Jurisdiction of RCKC	98
Chip Seal/Fog Seal	75
Driveway	69
Debris in Roadway	68
Speed	66
Pavement Marking	43
Insurance Claim	40
Guardrail	40
Brush Control	36
Mowing	25
Manhole Cover/Drain Cover	23
Encroachment in Right-of-Way	23
Sweeping	23
Yard Damage	15
Water Over Road	14
Fence Repair/Installation	6

# **STAY CONNECTED WITH US!**

We hope this report provides a better understanding of the RCKC, our commitment to Kalamazoo County, the role we play in improving our infrastructure, and how we contribute to economic development and high quality of life throughout the county and state. We are proud of our accomplishments and our operations. Our team continues to be dedicated to enhancing our road network and putting those limited transportation dollars to efficient use.

Check out our communication channels below for ways to stay up to date on our efforts.

#### 3801 E Kilgore Road Kalamazoo, MI 49001 www.kalamazoocountyroads.com Regular Business Hours: 7:30am - 4:00pm



# Achievements



In addition to the investment in our infrastructure through projects and maintenance, the RCKC team continued to focus on delivering the very best in public service in Kalamazoo County. Thank you to the board and team for your commitment to public service!

#### THE TEAM:

- We welcomed 11 new employees.
- We continued opportunities in a variety of staff training throughout the year.
- Management team participated in a 6-week leadership series with Strategic Government Resources.
- Continued with our Myers Briggs and Strength Finder leadership team building.
- Team continues in a variety of leadership positions in industry associations.
- Successful completion of our RCKC 2021 Organizational Goals.
- iPad tablets were provided to all Road Maintenance Operators in order to assist in operations and communications.

#### COMMUNICATION:

- Held Township Joint meetings and attended Township Board meetings.
- Met, communicated, and participated with Townships on a regular basis to ensure good communication.
- Coordinated road tours with Road Commissioners.
- Continued to hold hybrid Board meetings, allowing for live remote viewing and participation.
- Social media presence continued to grow.
- Municipality meetings with the City of Kalamazoo and City of Portage continued monthly.



#### ROAD MAINTENANCE AND PROJECTS:

- Achieved one of the best road surface conditions in the State.
- Implemented chip seal innovation and utilization of global positioning system (GIS).
- Over approximately 248 projects, totalling over \$21 million dollars.

#### MISCELLANEOUS

- Financial and Act 51 audit with no significant findings.
- Collaborative efforts including the Michigan Department of Transportation (MDOT), Drain Commissioner, County Planning, Villages, Cities, 911 Consolidated Dispatch and Road Commissions, in the State.
- Began a pilot using the Active Alert with 911 Consolidated Dispatch for communication of incidents for response.
- Highlighted in County Road Association (CRA) Crossroads and American Public Works Association (APWA) magazines for a variety of topics.
- Design work and phase 1 construction of the sand/salt shed for the 26th Street new RCKC facility project.
- Converted Public Act 51 certification maps with County Planning into GIS.



# **Awards & Recognition**



2021 Public Works Project of the Year Award from the American Public Works Association (APWA) Southwest Branch in the Transportation \$1M – \$5M category for the Sprinkle Road 2021 Project

2021 Project of the Year Award from the American Public Works Association (APWA) for the East Michigan Avenue Emergency Repair - Emergency Response Less than \$1 Million





2020 IMPRESS AWARD from the County Road Association (CRA) for Excellence in Collaboration for Traffic Signal Preemption Devices in Comstock Township\*

2020 IMPRESS AWARD from the CRA for Excellence in Communications for Informational Meetings Go Virtual\*



U Avenue | 29<sup>th</sup> Street to 32<sup>nd</sup> Street | May 13, 2020 Public Informational Meeting



2020 IMPRESS AWARD from the CRA for Excellence in Operations for Winter Operations Navigation System\*

# PUBLIC OUTREACH







Touchg-Truck









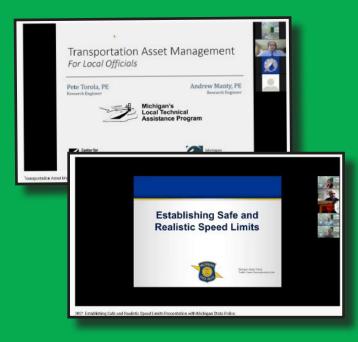


# Daycare Career Day





# **Informational Sessions**



ESTABLISHING REALISTIC SPEED LIMITS & MORE APRIL 20, 2021

> **TRANSPORTATION 101** *MAY 13, 2021*

**GRAVEL ROADS FOR LOCAL OFFICIALS** *SEPTEMBER 22, 2021* 

# GLOSSARY

#### Aggregate Lift

Technique of utilizing aggregate and other materials to raise the height of the roadway. Typically used as a solution for prolonged flooding.

#### All-season Roads

Roads that have a sub-base, base and surface of adequate thickness and composition to withstand year-round use of heavy vehicles without damage.

#### Asset Management

Asset management is a systematic approach to selecting the best investment at the right time to maximize the life of the asset being measured.

#### Cape Seal

A combination surface treatment that preventative maintenance incorporates an application of micro seal over a newly constructed surface treatment of chip seal. Cape seals provide a dense, waterproof surface with improved skid resistance and ride quality. *6-8 Year Service Life* 

#### **Chip Seal**

A surface treatment in which the pavement is sprayed with asphalt emulsion and then immediately covered with aggregate and rolled. Chip seals are used primarily to seal the surface of a pavement. *5-7 Year Service Life* 

#### **Cold Milling**

Removal of pavement material from the surface of a pavement structure to correct grade and cross section variations and to provide a uniform textured surface in preparation for a hot mix asphalt overlay.

#### **Crack Fill**

The placement of bituminous material into nonworking or low movement cracks to reduce infiltration of water and incompressible materials into the crack. Filling typically involves less crack preparation than sealing and performance requirements may be lower for the filler materials. Filling is often considered a short-term treatment to help hold the pavement together between major maintenance operations or until a scheduled rehabilitation activity. *1-3 Year Service Life* 

Crack fill on K Avenue



Aggregate lift on 8th Street bridge



Chip seal on 37th Street





Crack seal on O Avenue



Fog seal in Oshtemo Township



The placement of a bituminous material into working cracks. Crack sealing requires thorough crack preparation and often requires the use of specialized high-quality materials placed either into or above working cracks to prevent the intrusion of water and incompressible materials. Crack sealing is generally considered to be a longer-term treatment than crack filling.

1-2 Year Service Life

#### **Double Chip Seal**

Two applications of chip seal applied to a prepared gravel base. Another chip seal should be applied within 1-2 years. *8-10 Year Service Life* 

#### **Epoxy Overlay**

An application of polymer epoxy followed immediately with an application of aggregate to a concrete bridge deck. The overlay provides a long-lasting seal to protect the deck from the effects of traffic and harsh weather conditions. Epoxy overlays are used to extend the life of a structure by sealing moderate to extensive deck cracking.

10-15 Year Service Life

#### **Fog Seal**

A light application of asphalt emulsion diluted with water and without addition of any aggregate applied to the surface of a bituminous pavement or recent chip seal. Fog seals are used to renew aged asphalt surfaces and seal minor cracks. When applied over a recent chip seal, the fog seal reduces dust and lock in aggregate. *1-3 Year Service Life* 

#### **HMA Overlay**

The application of HMA (hot mix asphalt), a combination of aggregates, mineral fillers, RAP (recycled asphalt pavement), and asphalt binder place over an HMA surface. *15-20 Year Service Life* 

#### **HMA** Paving

The application of HMA (hot mix asphalt), a combination of aggregates, mineral fillers, RAP (recycled asphalt pavement), and asphalt binder placed on top of a gravel surface. *15-20 Year Service Life* 

#### HMA Ultra-Thin Overlay

A thin overlay of hot-mix asphalt, typically a thin lift of ¾ inch. 5-7 Year Service Life



HMA Paving on JK Avenue

#### HMA Wedge

A repair patch placed by a paving machine that varies in depth and length.

#### Infrared

Heating and blending new blacktop with infrared heated existing blacktop to create a joint-free integral patch.

#### Local Roads

County roads not classified as primary roads in the county road system. RCKC has 824.63 miles of these roads, including those in plats.

#### Micro Seal

A mixture of polymer modified asphalt emulsion, mineral aggregate, mineral filler, water, and other additives, properly proportioned, applied to a paved surface. Also, utilized to correct rutting on high volume roads. *6-8 Year Service Life* 

#### **Onyx Seal**

Preventive maintenance treatment that seals the pavement surface preventing water infiltration and oxidation from the sun.

#### Preservation

Structural improvement roadwork, including placing a hard surface on a gravel road, reconstructing an existing road or bridge, resurfacing a road with a HMA overlay, or installing new culverts or catch basins.

#### PASER

PASER stands for Pavement Surface Evaluation and Rating. The PASER system is a tool to rate the current surface condition of roads.

#### **Preventive Maintenance**

Roadwork, including chip sealing, pavement crack seal, and wedging to preserve roads by retarding deterioration.

#### **Primary Roads**

Major roads within the county road system in Kalamazoo County. Primary roads typically accommodate 85% of the county's road system traffic and include 445.82 miles of roadway.

#### **Pulverizing/Pulverization**

A recycling process that grinds existing asphalt in place and blends it with the underlying materials to form a quality aggregate base. Typically, a layer of gravel is placed on top of the asphalt surface before grinding.



HMA wedge on V Avenue



**Onyx seal on R Avenue** 



**Pulverizing XY Avenue** 



Placing shoulder gravel on XY Avenue



Applying dust control on 40th Street



**Texas underseal on G Avenue** 

#### Reconstruction

Removing the existing road surface and replacing it with materials of a thickness that conforms to current standards for pavement design. Vertical and horizontal alignment drainage improvements are also factors of reconstruction. *15-25 Year Service Life* 

#### Rehabilitation

Placing additional surface material or doing other work to return a road, including its shoulders, to structural or functional adequacy. *10-15 Year Service Life* 

#### Resurfacing

Placing new bituminous pavement material HMA over existing pavement. Shoulder material is added to match the elevation of the new pavement. *10-15 Year Service Life* 

#### RoadSoft

Road data geographic information systems software used to compile and report condition assessments. RoadSoft was developed by Michigan Technological University for all road agencies in Michigan

#### **Routine Maintenance**

Roadwork, including winter maintenance, pothole filling, roadside mowing, pavement marking, traffic signal maintenance, dust control, gravel road grading, guardrail repair, minor drainage corrections, etc.

#### Rubblizing

Concrete pavement broken into an aggregate base and the rubblized roadbed is left in place and used as part of the new pavement structure.

#### Texas Underseal

An application of a chip seal, prior to a HMA overlay application. The underseal treatment provides an impervious membrane to stop the intrusion of moisture.

# FINANCIAL HIGHLIGHTS

#### **FINANCES**

The RCKC is a special purpose government engaged in a single government program of road and bridge maintenance, preservation, and construction for the county of Kalamazoo, Michigan.

Our annual audited financial statements are included in the basic financial statements of Kalamazoo County, Michigan as a discretely presented component unit. Our Board of **County Road Commissioners** adopts an annual budget in accordance with the Uniform Budgeting Act (PA 621 of 1978). An independent audit is performed annually on the **RCKC** financial statements, and we annually submit our PA 51 Financial Report to the Michigan **Department of Transportation** (MDOT) as required by PA 51. In 2021, we continued to take every possible step to increase our efficiency by overseeing expenditures, including overhead and administrative costs. Steps taken include technology enhancements, equipment investments, ongoing collaboration, and road innovations.

PA 298 of 2012 allows the MDOT to request the local agency to engage an auditor to conduct a performance audit of whether it has expended funds in compliance by PA 51. If requested, this audit is completed in accordance with the Government Auditing Standards, issued by the Comptroller General of the United States. The RCKC engaged our auditors, even without the request of MDOT, to complete a PA 51 audit.



#### **REVENUES**

#### MICHIGAN TRANSPORTATION FUND

The Michigan Transportation Fund (MTF), the repository of motor fuel taxes and vehicle registration fees collected by the state, is the principal source of road commission funding. The collected funds are distributed to the MDOT, 276 cities and 257 villages, and 83 county road agencies, using a formula based on variables that include the density of population, road mileage by classification and collected vehicle registration fees. Motor fuel and vehicle registration tax revenue is restricted for transportation purposes by Article IX, Section 9 of the 1963 Michigan Constitution. Motor fuel taxes are excise taxes—a per gallon tax not based on price. MTF must also be preserved to match Federal dollars.

Those constitutional provisions are implemented through Michigan Statute – PA 51. Revenue from motor fuel taxes and vehicle registration taxes is first credited to the MTF and then distributed to the following primary recipients in accordance with provisions of PA 51:

- Comprehensive Transportation Fund (CTF) for public transportation programs
- State Trunkline Fund (STF) for construction and preservation of the state trunkline system and administration of the MDOT
- 83 county road agencies for construction and preservation of the county road system and administration
- 533 cities and villages for construction and preservation of the city/village road system and administration
- PA 51 also earmarks MTF revenue for certain targeted transportation funds and categorical programs including Transportation Economic Development Fund (TEDF), the rail grade crossing account and the Local Bridge Fund

On November 10, 2015, Governor Rick Snyder signed a package of legislative transportation funding bills (Michigan Revenue Package) designed to generate \$1.2 billion in new MTF revenues by 2021. This was the first increase in State road funding in approximately 20 years. Approximately half of this total will come from increases in fuel taxes (\$400 million) and vehicle registration fees (\$200 million) starting in 2017. Then, beginning in 2019, increasing amounts of general fund dollars, which are not guaranteed, are anticipated to be transferred to the MTF, reaching \$600 million in 2021. Lastly, the fuel taxes will be indexed to inflation, using the Consumer Price Index (CPI), beginning January 1, 2022.

A summary of the revenue package which began in 2017 is below:

#### 7.3 cent increase in State gas tax to 26.3 cents

+ Constitutionally dedicated to MTF

+ Note: Michigan also levies a sales tax at the pump, which most states do not; these taxes do not go into the MTF

20% increase in State registration fees for passenger vehicles and most commercial trucks

11.3 cent increase in diesel fuel bringing it equal to state gas tax of 26.3 cents per gallon

New taxes on alternative fuels and registration surcharges on electric vehicles

We're now at that point and the first inflationary, or indexed, increase will be implemented in January 2022 (and adjusted each year thereafter) as shared above. The legislation states: "... the department [Treasury] shall determine a cents-per-gallon rate on motor fuel that shall be derived by multiplying the cents-per-gallon rate in effect during the immediately preceding calendar year by 1 plus the lesser of 0.05 or the inflation rate and rounding up the product to the nearest 1/10 of a cent." According to Treasury the state fuel tax will increase to 27.2¢/gallon beginning January 1, 2022.

Please review our revenue graphs in this report.

#### STATE AND FEDERAL TRANSPORTATION FUNDS

The RCKC also works diligently to qualify for special sources of revenue for road improvement projects from other state and federal sources.

State sources include Transportation Economic Development Fund (TEDF):

- TEDF Category A funds are competitively available for road projects related to industry development and redevelopment opportunities
- TEDF Category D funds are available for use to upgrade roads to all-season standards and to develop a network of roads that are not weight restricted during seasonal weight restriction periods
- TEDF Category F funds are competitively available for use to upgrade roads to complete broken links in the all-season-road network in the urban area

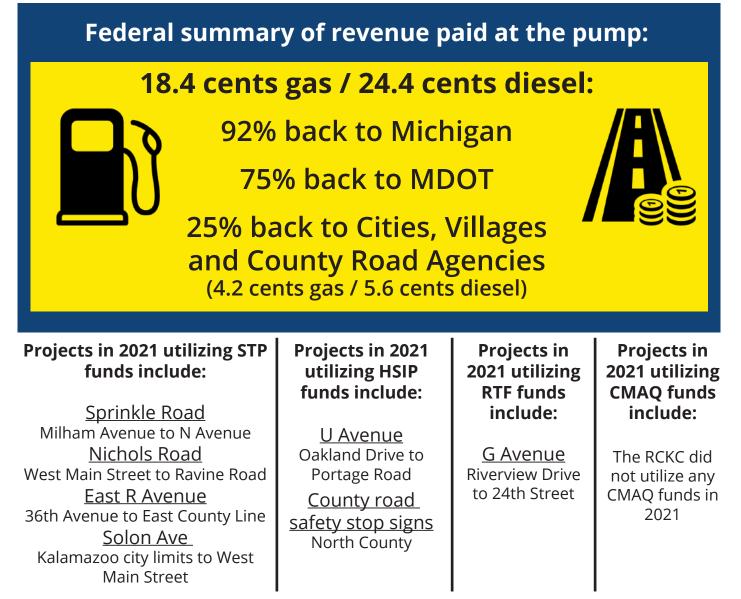


#### FEDERAL SURFACE TRANSPORTATION PROGRAM FUNDS

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act which provides funding for transportation programs through 2020. Extensions of the FAST Act were necessary until a new program was signed into law. The Infrastructure Investment and lobs Act (IIIA), was signed into law by President Joe Biden on November 15, 2021. The act includes funding for broadband access, clean water, electric grid renewal in addition to the transportation and road programs. The IIIA includes approximately \$1.2 trillion in spending, with \$550 billion being newly authorized spending on top of what was already authorized. Federal funding, including Surface Transportation Program (STP), is distributed to the RCKC through the Kalamazoo Area Transportation Study (KATS), the Metropolitan Planning Organization (MPO) for the Kalamazoo urbanized area. The Rural Task Force (RTF) Program provides STP-Rural federal dollars to rural areas.

Congestion Mitigation Air Quality (CMAQ) programs reduce vehicle pollutant emissions by improving the flow of traffic, or by providing transportation choices that reduce pollution. CMAQ funds are designated to the Kalamazoo region to support projects that will result in improved air quality.

Under the Federal Aid Highway Program, Michigan is also eligible for Local Safety Program funds which are federal funds to be used for road improvements that provide countermeasures that improve and potentially reduce crashes. The FHWA also provides funds from the Highway Safety Improvement Program (HSIP) and a portion of those funds are for the High Risk Rural Road (HRRR) program.

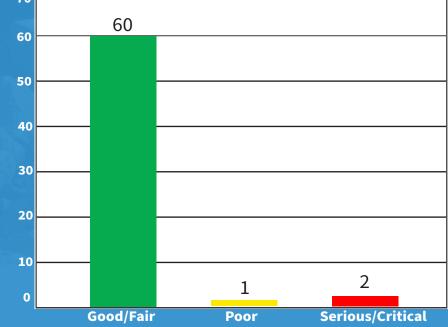


# 2021 Bridge Rating Summary\*

#### LOCAL BRIDGE PROGRAM FUNDS

Under the Federal Aid Highway Program, Michigan is eligible to use federal funds to improve the condition of highway bridges through replacements, rehabilitation, and preservation activities.

Established by 2004 PA 384, an amendment to Act 51, provides financial assistance to local highway authorities for the preservation, improvement, reconstruction of existing bridges, or the construction of bridges to replace existing bridges in whole or part. Revenues are provided from an PA 51 earmark of ½ cent of the gasoline excise tax (approximately \$22 million), and a separate (approximately \$5 million) PA 51 earmark of MTF revenue. Through legislation in 2004, Michigan created a Local Bridge Fund to be administered by the Local Bridge Advisory Board and seven **Regional Bridge Councils. Funding** from the Local Bridge Fund is allocated to each region based on available funds and weighted ratios provided in the legislation. The recent Michigan Revenue Package which began in 2017, did not allocate additional funding to the local bridge program.



These funds are available on a state-wide competitive basis for which we apply annually. The funds can be used for bridge replacement, rehabilitation, and preventive maintenance projects. Bridges with high traffic volumes, that are structurally deficient, or do not function in a way that meets traffic needs are more likely to receive funding.

The RCKC did not utilize Local Bridge funds in 2021.

The Transportation Asset Management Council (TAMC) annual report on deficient bridges is available on the TAMC website at www.michigan.gov/tamc.

\*In 2021, 3 of the RCKC bridges are rated as structurally deficient: Structurally Deficient (SD) status – A highway bridge is classified as structurally deficient if the deck, superstructure, substructure, or culvert is rated in "poor' condition (0 to 4 on the National Bridge Inventory (NBI) rating scale). A bridge can also be classified as SD if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods.

#### LOCAL ROAD PARTICIPATION FUNDS

The Board of County Road Commissioners of the County of Kalamazoo, determines annually the amount of primary road funds allocated to the Local Road Participation Funds (PAR) fund program that will be made available to each township.

The distribution of the funds is based on township mileage and population and is determined on the same basis that local road fund money is distributed to the RCKC from the MTF.

PAR funds are made available to the townships for use on local road preservation and structural improvements, preventive maintenance, construction, and special assessment projects. In order to receive local road participation funds, townships must match funds on a dollar-for-dollar basis.

Carryover Funds: Remaining obligated unspent funds for local road projects which may be carry over to the following year, per RCKC policy.

Reallocation: Redistribution of initial allocation based on township's January 20th response for use of allocated PAR funds by township, per RCKC policy.



TOWNSHIP	2021 INITIAL ALLOCATION	2020 CARRYOVER FUNDS	REALLOCATION OF PAR FUNDS	TOTAL TOWNSHIP ALLOCATION
ALAMO	\$70,389	\$0	\$0	\$70,389
BRADY	\$89,694	\$0	\$0	\$89,694
CHARLESTON	\$44,270	\$0	\$0	\$44,270
CLIMAX	\$72,576	\$0	\$0	\$72,576
COMSTOCK	\$235,295	\$0	\$0	\$235,295
COOPER	\$164,789	\$11,628	\$0	\$176,417
KALAMAZOO	\$278,311	\$1,104	\$0	\$279,415
OSHTEMO	\$258,108	\$57,692	\$0	\$315,800
PAVILION	\$114,375	\$0	\$0	\$114,375
PRAIRIE RONDE	\$81,746	\$6,982	\$0	\$88,728
RICHLAND	\$120,680	\$0	\$0	\$120,680
ROSS	\$93,273	\$0	\$0	\$93,273
SCHOOLCRAFT	\$86,665	\$0	\$0	\$86,665
TEXAS	\$263,899	\$0	\$0	\$263,899
WAKESHMA	\$70,930	\$0	\$0	\$70,930
TOTAL	\$2,045,000	\$77,406	\$0	\$2,122,406



#### **NON-MOTORIZED FACILITIES**

The Board are committed to working with local governments to develop safe and efficient non-motorized transportation routes throughout the communities within Kalamazoo County and adopted a Non-motorized Facilities Policy. This policy provides the practical application in working with our partners in the approach to Complete Streets. The RCKC recognizes the value of non-motorized facilities, while simultaneously acknowledging the necessity of working within applicable funding requirements and fiscal limitations and competing needs of other public use considerations including utilities, engineering issues such as proper drainage, safety, right-of-way (ROW) dimensions maintenance issues, as well as the competing interests of users such as pedestrians, joggers, runners, strollers, and bicyclists. All of these community and administrative interests should be valued appropriately in facilitating the development of a non-motorized facilities. The RCKC typically serves as the grant applicant for non-motorized facilities when using public funding sources. In Act 51, of the funds allocated from MTF, not less than 1% of those funds shall be expanded for construction or improvement of non-motorized transportation and facilities. These non-motorized facilities included paving of road shoulders and widening of lanes. Ten years of qualified expenditure for non-motorized improvements for the RCKC total \$10.1 million with \$539,000 in 2021. On November 9, 2021, the Board approved a series of non-motorized routes in continued support of all users of our road system. This RCKC Non-motorized Master Plan map considered many traffic engineering and safety data as they continue to be developed and linking throughout the county.

#### Non-motorized Facilities Applications/Agreements Approved in 2021 include:

10th Street at Applegate Woods (Texas Twp.) – Application & Agreement KL Avenue Phase 1 (Oshtemo Twp.) – Application KL Avenue Phase 2 (Oshtemo Twp.) – Application City of Kalamazoo (Sidewalk Umbrella) – Agreement Sprinkle Road sidewalk (City of Kalamazoo) – Application Texas Township (Sidewalk Umbrella) – Agreement Beatrice Drive sidewalk (Texas Twp.) – Application

#### **EXPENDITURES**

Routine maintenance activities and safety improvements, outside of construction projects, include surface patching, sign maintenance, roadside mowing, tree cutting/removal, culvert repair, guardrail maintenance, and winter maintenance.

During 2021, approximately 30 miles of roads were paved and to preserve the capital investment in our roads, 101 miles of roads were chip sealed. Over \$16.2 million dollars was spent on our primary road system and over \$11.6 million on our local road system for both construction and maintenance operations in 2021. ROAD WORK AHEAD

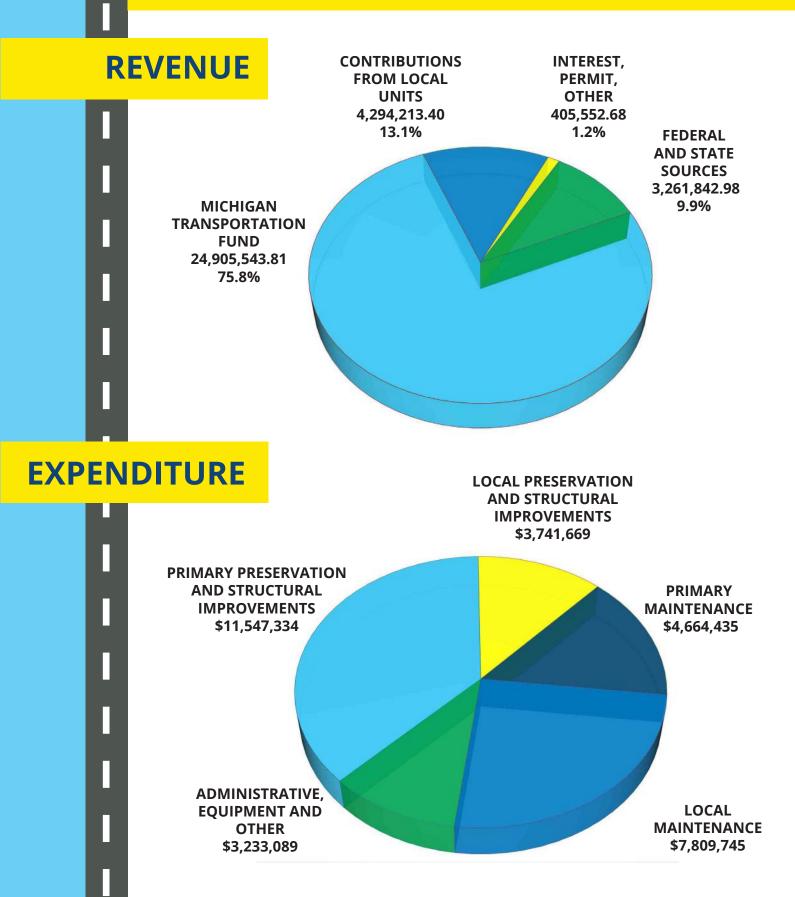


## WINTER MAINTENANCE EXPENDITURE AND SNOWFALL DATA



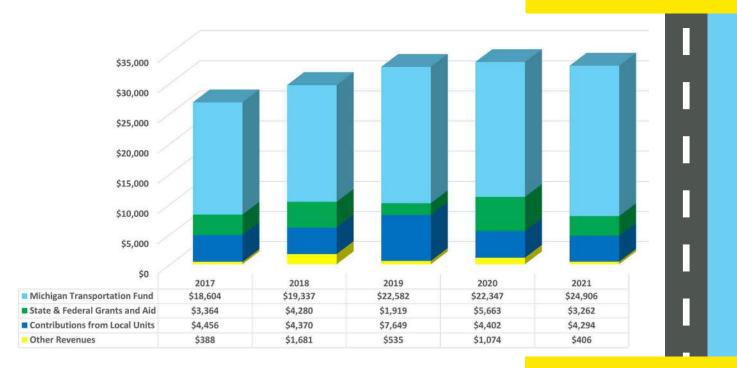
Safe driving conditions are always a priority for the RCKC, and wintertime is no exception. By monitoring weather forecasts frequently, we are able to meet winter's challenges and implement an effective winter maintenance plan. Generally, plowing operations begin when slippery conditions exist, or snow levels reach about two inches on major roads. Salt, sand, and liquid deicer are applied as moderately as possible, without presenting unacceptable risk to the motoring public. The Expenditure and Snowfall Data graph provides you a consolidated view of winter maintenance in 2021, while keeping in mind the various types of winter precipitation may not be included in the snowfall totals (such as sleet, freezing rain, etc.) when our services also remain necessary.

## 2021 REVENUE AND EXPENDITURE OVERVIEW



# 2021 REVENUE AND EXPENDITURE HISTORICAL COMPARISON

#### REVENUE





#### **EXPENDITURE**

# PROJECTS AND ROAD CONDITIONS

#### ASSET MANAGEMENT

In 2018, three Public Acts (PA) were enacted related to asset management. PA 323, 324 and 325. These laws established two new councils: the Michigan Infrastructure Council (MIC) and the Water Asset management Council (WAMC). The **Transportation Asset Management** Council (TAMC), which has been in existence since 2002. scope was modified including requirements to address asset management plans for local agencies. Beginning in 2020, local road agencies responsible for 100

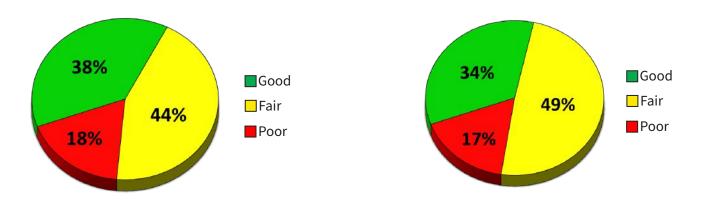
or more certified miles of road will be required to have an asset management plan. You can find the RCKC Compliance, Pavement and Bridge Asset Management Plan on the Road Data page of our website.

Infrastructure is a valuable asset in every community. It is important to maintain these assets as efficiently and cost effectively as possible. The road surface data collection uses the Pavement Surface Evaluation and Rating (PASER) system, as is used in the federal aid data collection. As road improvements occur, the PASER rating is also updated. PASER rating is based on a number system, 1 through 10 with 1 being the worst and 10 being the best. This data will assist in establishing a strategic plan for project selection and maintaining our infrastructure with the right fix at the right time for our primary and local road system. You can find valuable information on the condition of our infrastructure assets on our RCKC website Road Data page.

In 2021, our overall road network condition improved slightly after approximately \$15.6 million of investments. However, on-going investment in asset management on our roads is needed to maintain them in good condition.

#### 2020 PRIMARY AND LOCAL ROADS

2021 PRIMARY AND LOCAL ROADS

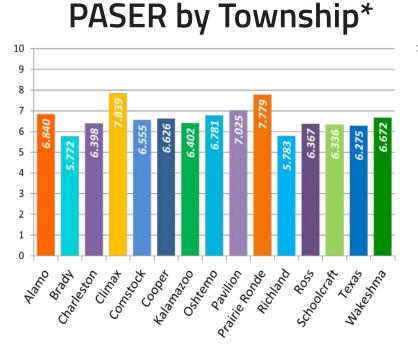


#### The graphs above compare 2020 to 2021.

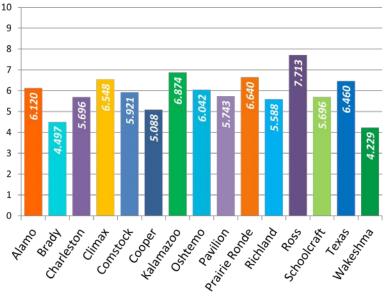
For additional asset management information, please visit the Transportation Asset Management Council (TAMC) website Dashboards at www.michigan. gov/tamc for additional information on asset management state-wide federal aid system. It is important to share the RCKC manages over \$158 million of infrastructure assets.

Please review our asset management graphs, in this report, that reflect data for RCKC's primary and local road system.

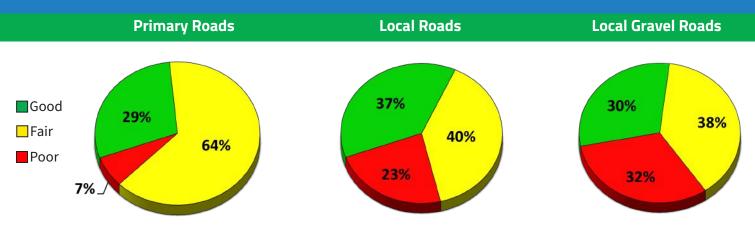




#### Local Road Average PASER by Township\*



### 2021 Kalamazoo Countywide Road Conditions



\*Good (PASER rating ≥8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤4) Based on year end 2021 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

#### **COUNTYWIDE AND CROSS-JURISDICTIONAL PROJECTS**

Project Location	Work Performed	Total Cost
Sprinkle Road - Zylman to Centre Street (City of Portage)	Chip Seal / Fog Seal	43,864.04
Sprinkle Road - S Avenue to Zylman Avenue (City of Portage / Pavilion Township)	HMA Wedging / Chip Seal / Fog Seal	51,341.47
Snapdragon Street - Thistle Avenue to West Maple Street (Village of Climax)	Crack Fill / Chip Seal / Fog Seal	9,937.40
DE Avenue - 32nd Street to 230' east of Yorktown Street (Village of Rich- land)	Crack Fill / Chip Seal / Fog Seal	18,846.87
32nd Street - DE Avenue to M-343 (Village of Richland)	HMA Overlay	156,302.67
Richwood Lane - D Avenue to Pattiwood Lane (Village of Richland)	HMA Overlay	11,680.43
Richland Woods Drive - 32nd Street to 2,350' west of 32nd Street, Kellie Lane - 650' south of Richland Woods Drive to Richland Woods Drive, Richland Woods Court - 550' south of Richland Woods Drive to Richland Woods Drive (Village of Richland)	Chip Seal Trial	49,729.22
Sprinkle Road - 200' south of Long Lake Drive to Zylman Avenue (City of Portage)	Crack Fill	1,644.82
12th Street - ON Avenue to Parkerview Drive (City of Portage / Oshtemo Townshp)	Crack Fill	505.40
Kalamazoo River Trailway - Segment 6	Non-Motorized Trail Project	38,727.74
Kalamazoo River Trailway - Segment 6 Extension	Non-Motorized Trail Project	14,601.10
Sprinkle Rd - Centre to Milham	Crack Fill	9,764.24
Lake St - City Limit to Olmstead(Kalamazoo Township)	Reconstruction & Drainage Improvements	76,088.14
Lake St - City Limit to Olmstead(City of Kalamazoo)	Reconstruction & Drainage Improvements	76,088.14
City of Kalamazoo	Manhole Projects	58,420.63
Nichols Rd - Grande Prairie to Ravine Rd(Kalamazoo Township)	Non-Motorized Path	78,312.99
Sprinkle Rd - at Meredith(City of Portage)	Water Main Replacement	333,422.89
Systemic Signs Upgrade (North County)	Countywide / Stop Signs	285,417.93
Total Cost		1,314,696.12

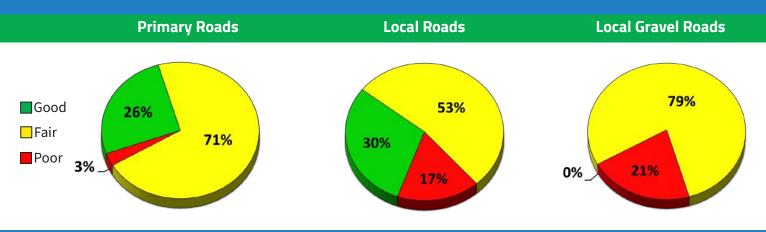




Project costs are preliminary and include only work performed in 2021 and design projects. No carryover funds are included. For additional details, please see our Fiscal Year Annual Financial Report per Public Act (PA) 51 and our Audited Financial Report.



### 2021 Alamo Township Road Conditions



\*Good (PASER rating  $\geq$ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq$ 4) Based on year end 2021 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

### ALAMO TOWNSHIP PROJECTS

Project Location	Work Performed	Total Cost
G Avenue - 2nd Street to 6th Street (Alamo / Oshtemo Townships)	Chip Seal / Fog Seal	68,506.13
Ravine Road - F Avenue to D Avenue	Crack Fill	2,183.12
D Avenue - 5,280' west of 2nd Street to 6th Street	Crack Fill	17,494.89
Total Primary Cost		88,184.14
Project Location	Work Performed	Total Cost
Country View Drive - 8th Street to 1,400 east of 8th Street	HMA Overlay	38,427.43

Chip Seal / Fog Seal

Chip Seal / Fog Seal

Seal

Crack Fill / Chp Seal / Fog Seal

Gravel / Pulverize / Double Chip Seal / Fog

EF Avenue - 5,122' west of 2nd Street to 2nd Street

G Avenue - 245' west of 2nd Street to 2nd Street

Owen Drive - 1,875' south of B Avenue to B Avenue

F Avenue - 3rd Street to Far Hills Way

**Total Local Cost** 

**Total Cost** 

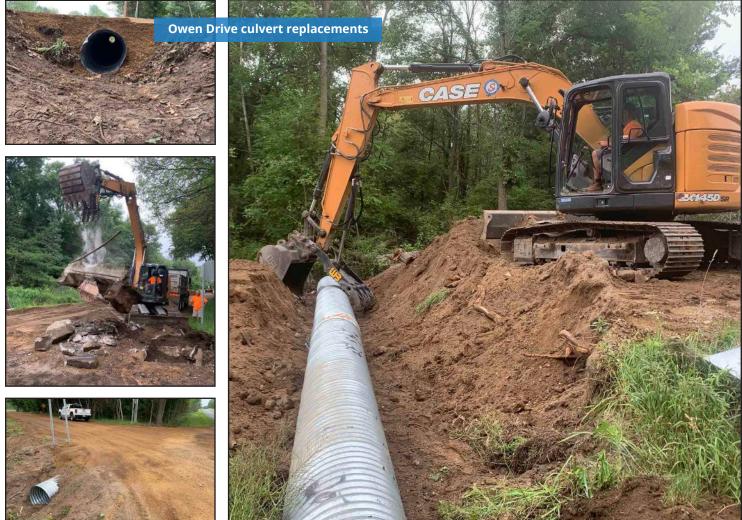
205,681.82 293,865.96

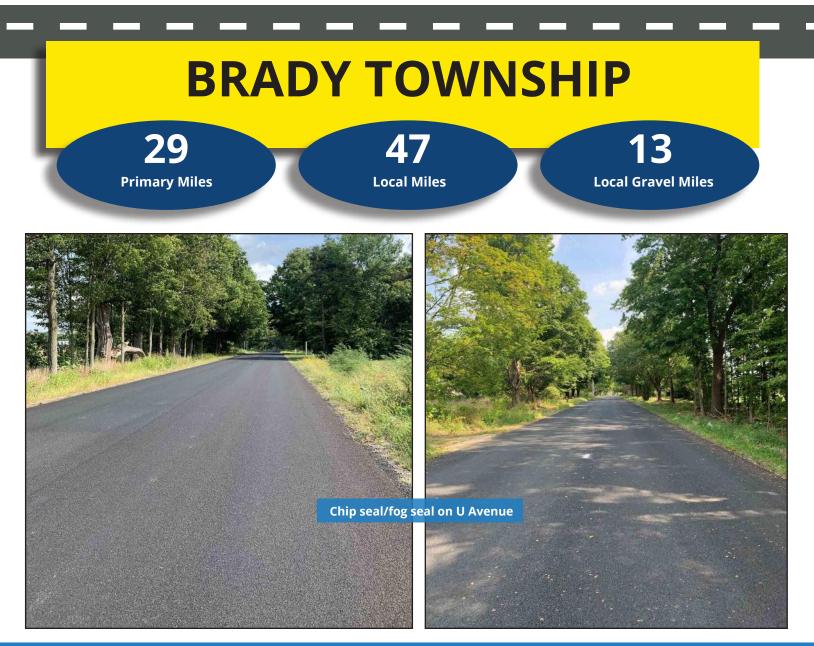
34,352.81

32,578.10

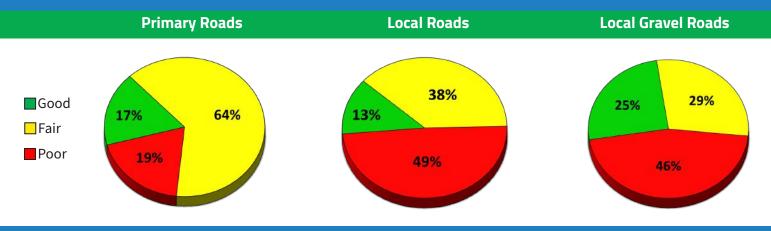
3,475.32

96,848.17





## 2021 Brady Township Road Conditions



\*Good (PASER rating  $\geq$ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating  $\leq$ 4) Based on year end 2021 PASER data. Gravel roads rated using Inventory Based Rating (IBR).

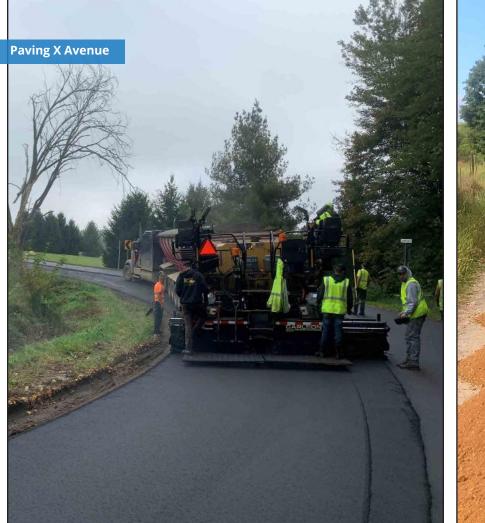
## BRADY TOWNSHIP PROJECTS

Project Location	Work Performed	Total Cost
U Avenue - 29th Street to 32nd Street	Chip Seal / Fog Seal	49,437.91
Sprinkle Road - V Avenue to S Avenue (Brady / Pavilion Townships)	Crack Fill	3,108.23
31st Street / X Avenue - X Avenue to 32nd Street	Pulverize / HMA Paving / Bridge Rehabilitation	11,353.22
TU Ave - at 23rd Street	Intersection Improvements	13,892.36
Total Primary Cost	· · · · · ·	77,791.72

	Project Location	Work Performed	Total Cost
Ļ	34th Street - U Avenue to T Avenue	Crack Fill / Hot Mix Asphalt (HMA) Wedging / Chip Seal	39,283.95
S	XY Avenue - 4,140' east of 33rd Street to 7,990' east of 33rd Street	Gravel / Pulverize	50,848.52
ГÓ	X Avenue - 120' west of 33rd Street (southbound) to 33rd Street (north- bound)	Gravel / Pulverize / HMA Base & Surface Paving	129,600.96
	YZ Avenue - 3,500' west of 27th Street to 27th Street	Crack Fill / Chip Seal	20,119.90
	Total Local Cost		239,853.34

#### Total Cost

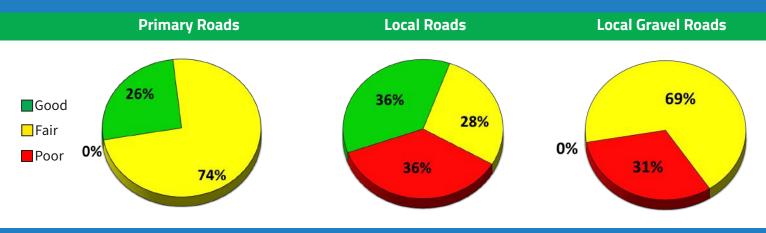
317,645.06







## 2021 Charleston Township Road Conditions



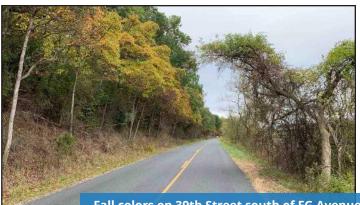
## **CHARLESTON TOWNSHIP PROJECTS**

Work Performed	Total Cost
Chip Seal / Fog Seal	116,587.21
	116,587.21
Work Performed	Total Cost
	Chip Seal / Fog Seal

	Total Local Cost		168,231.50
-	Climax Drive - Streamside Drive to 1,000' west of Streamside Drive	Temporary, HMA Wedging. RCKC will NOT guarantee the performance of this paving. (Reflective cracking will occur within 12 months)	\$21,426.70
Ŏ	Pinehill Drive - 830' south of Fort Custer Road to Fort Custer Road	Crack Fill / Chip Seal / Fog Seal	\$9,360.81
A U	Fort Custer Drive - Michigan Avenue to 40th Street	Crack Fill / HMA Wedging / Chip Seal	\$61,574.91
Ļ	40th Street - 800' north of Michigan Avenue to Fort Custer Drive	Crack Fill / HMA Wedging / Chip Seal	\$41,266.39
	44th Street - MN Avenue to M Avenue	Crack Fill / HMA Wedging / Chip Seal	\$34,602.68

#### **Total Cost**

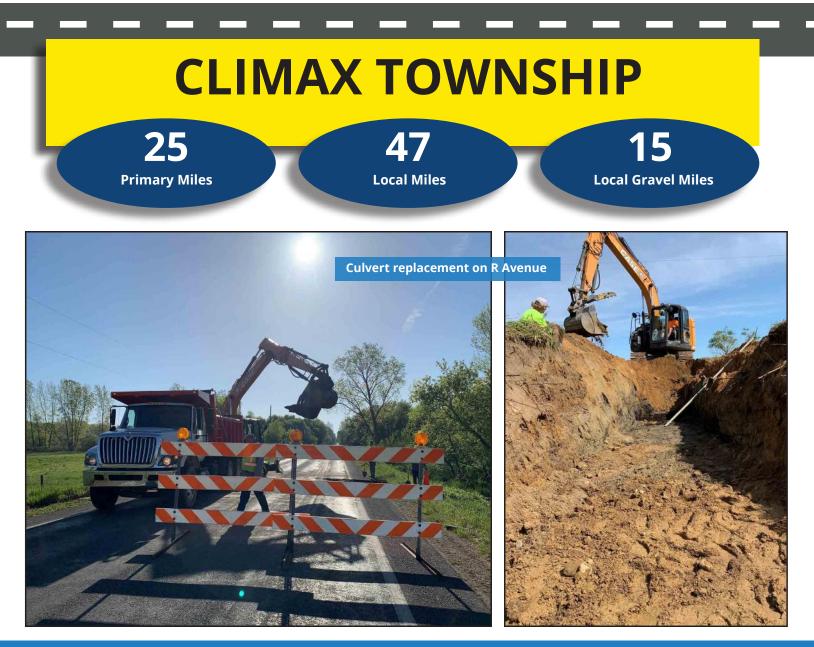




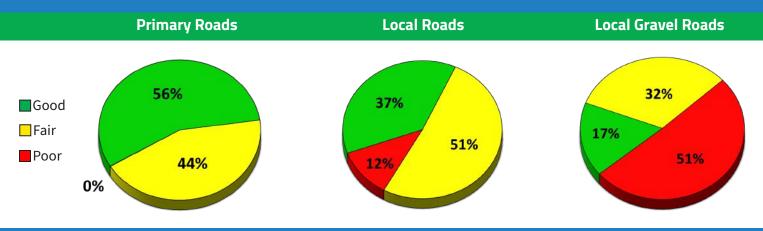
Fall colors on 39th Street south of FG Avenue

284,818.71





## 2021 Climax Township Road Conditions



## **CLIMAX TOWNSHIP PROJECTS**

Project Location	Work Performed	Total Cost
R Avenue - 36th Street to east County Line	Mill / HMA Overlay	1,539,070.89
43rd Street - R Avenue to Q Avenue	Chip Seal / Fog Seal	38,829.06
O Avenue - 38th Street to 42nd Street	Chip Seal / Fog Seal	70,057.56
36th Street - T Avenue to PQ Avenue	Crack Fill	4,082.14
ON Avenue - 42nd Street to 2,640' east of 42nd Street	Crack Fill	448.59
42nd Street / 43rd Street - 2,640' wouth of TS Avenue to R Avenue	Crack Fill	1,009.32
Total Primary Cost	·	1,653,497.57

Project Location	Work Performed	Total Cost
Q Avenue - 38th Street to 40th Street	Crack Fill / HMA Wedging / Chip Seal	49,866.80
P Avenue - 38th Street to 40th Street	Crack Fill / HMA Wedging / Chip Seal	62,316.50
S Avenue - 47th Street to 48th Street	Crack Fill / HMA Wedging / Chip Seal	39,690.51
S Avenue - 36th Street to 39th Street	Crack Fill / HMA Wedging / Chip Seal	71,442.36
Q Avenue - 46th Street to 3,600' east of 46th street	Crack Fill / HMA Wedging / Chip Seal	32,740.52
Total Local Cost		256,056.69

#### **Total Cost**

#### 1,909,554.26



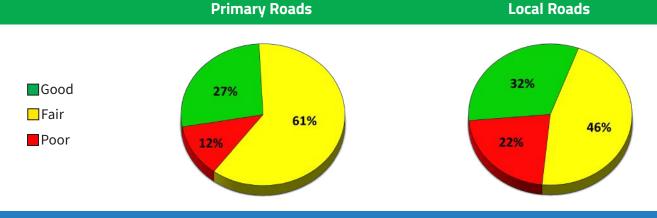
Mill and HMA Overlay work on R Avenue







## 2021 Comstock Township Road Conditions



## **COMSTOCK TOWNSHIP PROJECTS**

Project Location	Work Performed	Total Cost
35th Street - Shadow Lane Avenue	Traffic Signal Replacement	31,623.33
N. Sprinkle Road - E. Main to G Avenue	Mill / HMA Overlay	52,724.07
N. Sprinkle Road - N Avenue to I-94	Mill / HMA Overlay / Drainage	9,835.30
33rd Street - M-96 to G Avenue	Chip Seal / Fog Seal	13,713.51
Comstock Avenue - Sprinkle Road to River Street	Chip Seal / Fog Seal	58,213.20
E. Michigan Avenue - Sprinkle Road to M-96	Chip Seal / Fog Seal	52,854.11
Sprinkle Road - Cork Street to I-94 BL	Chip Seal / Fog Seal	43,295.38
N Avenue - Sprinkle Road to 26th Street (Comstock / Pavilion Townships)	Chip Seal / Fog Seal	110.47
E. Main Street - Nazareth to Sprinkle Road (Kalamazoo / Comstock Town- ships)	Chip Seal / Fog Seal	9,879.94
Comstock Signal Pre-emption	Traffic Signal Pre-emption Installation	25,409.16
26th Street - H Avenue to M-343	Crack Fill	4,485.87
East Main Street - 26th Street to 33rd Street	Crack Fill	11,214.67
H Avenue - Sprinkle Road to 26th Street	Crack Fill	2,691.52
N Avenue - 26th Street to 34th Street (Comstock / Pavilion Townships)	Crack Fill	24,806.86
River St - at Comstock Ave & ML Ave	Traffic Signal Upgrade	60,431.82
Total Primary Cost		401,289.21

Project Location	Work Performed	Total Cost
Carriage Street - ML Avenue to Larivee Avenue, Larivee Avenue - Car- riage Street and Coach Street, Coach Street - ML Avenue to 182' north of Larivee Avenue	Crack Fill / Chip Seal / Fog Seal	23,889.62
Dawes Avenue - 26th Street to 1,070' east of 26th Street	Crack Fill / Chip Seal / Fog Seal	11,302.87
Doyle Drive - M-43 to 496' north of M-43	Crack Fill / Chip Seal / Fog Seal	5,779.08
Elliot Road - 2,288' south of M-96 to M-96, Lawndale Avenue - 2,288' south of M-96 to M-96, Arden Avenue - Elliott Road to Lawndale Avenue	Crack Fill / Chip Seal / Fog Seal	27,896.64
Frederick Stret - Comstock Avenue to 700' north of Comstock Avenue	Crack Fill / Chip Seal / Fog Seal	5,816.72
Gleneagle Drive West - ML Avenue to Gleneagle Drive North, Gleneagle drive East - ML Avenue to Gleneagle Drive North, Gleneagle Drive North - Gleneagle Drive West to Gleneagle Drive East, Kilowatt Drive - Gleneagle Drive West to Gleneagle Drive North	Crack Fill / Chip Seal / Fog Seal	32,997.79
Hidden Shore Drive - 1,813' south of G Avenue to G Avenue, Waterwood Drive - 1,662' west of Hidden Shore Drive to 603' east of Hidden Shore Drive	HMA Overlay	165,383.23
Kincaid Street - Josephine Street to 2,200' north of Josephine Street	Pulverize / HMA Base / Surface Paving	131,833.50
Kincaid Street - Josephine Street to 2,200' north of Josephine Street	Drainage Improvement	31,028.19
Knight Street - Comstock Avenue to 700' north of Comstock Avenue	Crack Fill / Chip Seal / Fog Seal	5,733.57
Leenhouts Street - 1,900' north of East Michigan Avenue	Drainage Improvement	4,520.90
Maple Brook Drive - 185' west of Spruce Brook Road to Spruce Brook Road, Fawn Brook Circle - 306' west of Spruce Brook Road to Spruce Brook Road, Cedar Brook Drive - East Main Street to Merry Brook Drive, Willow Brook Drive - Spruce Brook Road to Merry Brook Street, Winding Brook Drive - 169' south of Willow Brook Drive to Willow Brook Drive, Spruce Brook Road - Willow Brook Drive to Cedar Brook Drive, Merry Brook Street - Willow Brook drive to East Main Street	Crack Fill / Chip Seal / Fog Seal	45,040.26
Rystock Street - Comstock Avenue to 660' north of Comstock Avenue	Crack Fill / Chip Seal / Fog Seal	5,374.80
Sullivan Drive - Comstock Avenue to 660' north of Comstock Avenue	Crack Fill / Chip Seal / Fog Seal	6,611.98
Total Local Cost		503,209.15

## **COOPER TOWNSHIP**

#### **31** Primary Miles

63 Local Miles

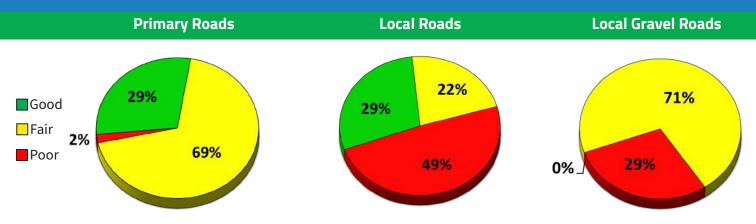




Mill and HMA overlay on G Avenue



## 2021 Cooper Township Road Conditions



## **COOPER TOWNSHIP PROJECTS**

Project Location	Work Performed	Total Cost
G Avenue - Riverview Drive to 24th Street	Mill / HMA Overlay	598,020.30
Douglas Avenue - City of Kalamazoo Limits to G Avenue (Cooper / Kalam- azoo Townships)	Mill / HMA Overlay	27,960.24
Ravine Road - Drake Road to 12th Street (Cooper / Kalamazoo / Oshtemo Townships)	Reconstruction / Mill / HMA Overlay	1,839.24
Douglas Avenue - B Avenue to Baseline Road	Crack Fill	3,705.54
12th Street - Ravine Road to D Avenue	Pulverize / HMA Overlay / Shoulder Widen	159,850.78
12th Street - D Avenue to 2,640' north of AB Avenue	Crack Fill	11,172.80
D Avenue - Riverview Drive to 24th Street, Riverview Drive - 1,000' south of D Avenue to D Avenue	Crack Fill	2,841.05
Riverview Drive - G Ave to Mt Olivet	HMA Overlay / Drainage Improvements	103,072.53
Total Primary Cost	,	908,462.48

Project Location	Work Performed	Total Cost
AB Avenue - 12th Street to Douglas Avenue	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	95,849.54
Hunters Crossing - D Avenue to Woodview Grover, Woodview Grover - Hunters Crossing to 150' east of Hunters Crossing, Wild Flower Path - Hunters Crossing to 956' east of Hunters Crossing (North Port Crossing)	Crack Fill / Chip Seal / Fog Seal	32,268.54
Sparrow Avenue - Oriole Street to 407' east of Wren Street, Oriole Street - Rollridge Avenue to Sparrow Avenue, Wren Street - Rollridge Avenue to Sparrow Avenue, Rollridge Avenue - Oriole Street to 24th Street	Crack Fill / Double Chip Seal / Fog Seal	68,680.95
Stony Avenue - Rocky Road to Quartz Street, Quartz Street - Granite Avenue to Stony Avenue, Granite Avenue - Rocky Road to Quartz Street, Rocky Road - Rollridge Avenue to Stony Avenue	Crack Fill / Double Chip Seal / Fog Seal	60,195.64
14th Street - E Avenue to D Avenue	HMA Overlay	144,745.18
Patti Circle - 400' west of Rocky Road to Rocky Road	Crack Fill / Double Chip Seal / Fog Seal	12,223.66
Total Local Cost		413,963.52

#### **Total Cost**

#### 1,322,426.00



## KALAMAZOO TOWNSHIP

#### 26 Primary Miles

75 Local Miles

**C** Local Gravel Miles



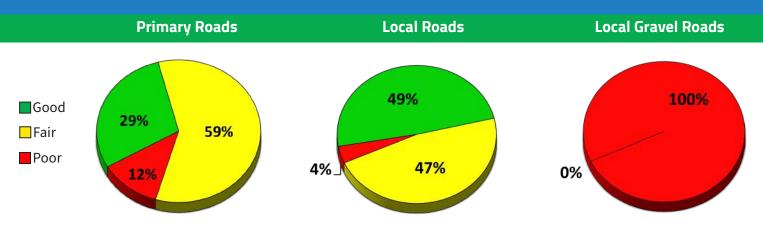


Nichols Road project - milling, HMA paving, drainage, and signal work





## 2021 Kalamazoo Township Road Conditions



## KALAMAZOO TOWNSHIP PROJECTS

Project Location	Work Performed	Total Cost
Nichols Road - W. Main Street to Ravine Road	Mill / HMA Overlay / Drainage / Signal	1,907,899.69
Solon Street - City of Kalamazoo Limits to W. Main Street	Mill / HMA Overlay	192,427.57
Barney Road - Nichols Road to Douglas Avenue	Mill / HMA Overlay	208,694.80
Lake Street - City of Kalamazoo Limits to Olmstead Road	Reconstruction / Drainage	81,497.82
Mosel Avenue - Douglas Avenue to Riverview Drive	Traffic Signal Replacement	36,656.60
E. Main Street - Nazareth to Sprinkle Road (Kalamazoo / Comstock Townships)	Chip Seal / Fog Seal	20,059.11
Nichols Road - West. Main Street to Ravine Road	Under Seal	87,723.65
Drake Road - Grand Prairie Road to Ravine Road	Crack Fill	240.17
Alamo Avenue - Nichols Road to Warren Street	Crack Fill	1,256.05
Total Primary Cost		2,536,455.46

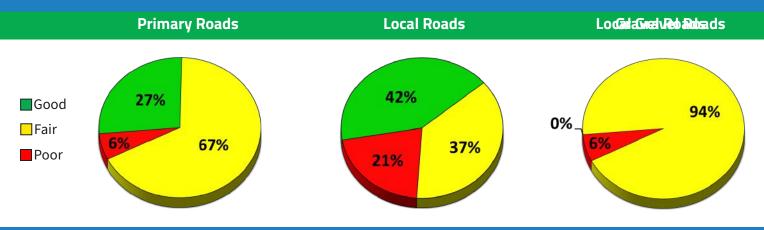
Project Location Work Per	formed	Total Cost
Skyline Drive - Andora Avenue to Grand Prairie Road, Thistle Mill Court - Squires Drive to 854' east of Squires Drive (Skyline)	Fog Seal	30,124.90
Aspen Drive - Chaparral Street to Andora Avenue, Cumberland Street - Grand Prairie Road to 2,803' north of Grand Prairie Road (Grand Prairie Estates) Chip Seal / I	Fog Seal	30,869.17
Stolk Drive - 1,408' west of Nichols Road to Nichols Road Chip Seal / H	Fog Seal	9,957.88
Calhoun Street - Haskell Street to 659' north of Haskell Street, Manor Street - Atlee Street to 661' north of Haskell Street	Fog Seal	15,590.94
Haskell Street - Nichols Street to Fletcher Avenue, Ella Marie Drive - Coolidge Avenue to 648' west of Coolidge Avenue, Ella Marie Drive - Coolidge Avenue to Jenks Boulevard, Althea Street - Coolidge Ave- nue to LaCross Street, Coolidge Avenue - Haskell Street to Timberleaf Lane, Coolidge Court - Coolidge Avenue to 127' north of Timberleaf Lane, Timberleaf Lane - Coolidge Court to Grand Pre Avenue, Grand Pre Avenue - M-43 to Olney Street, North Fletcher Avenue - M-43 to Hillsdale Avenue, Olney Street - Jenks Boulevard to Grand Pre Avenue, Crestview Avenue - Coolidge Avenue to 629' west of Coolidge Avenue, Grand Pre Avenue - M-43 to Jenks Boulevard (Prairie Edge)	Fog Seal	100,301.66
Harvey Avenue - Alamo Avenue to 840' North of Alamo Avenue (Early View Plat) Chip Seal / H	Fog Seal	6,556.10
Ferndale Avenue - Hillsdale Avenue to Alamo Avenue, Climax Avenue - Hillsdale Avenue to Alamo Avenue, Hillsdale Avenue - 180' west of Fernadle Avenue to North Berkley Street, Richland Avenue - Hillsdale Avenue to Alamo Avenue, Jefferson Avenue - Arlington Street to 155' east of Arlington Street	Fog Seal	56,617.53
LaCross Street - Althea Street to Pinehurst Boulevard, Pinehurst Boulevard - West Main Street to Alamo Avenue, Crown Street - LaCross Street to Hillsdale Avenue (Hillsdale Park)	Fog Seal	42,221.83
Campbell Avenue - M-43 to Pinehurst Avenue, Wilmette Street - Pinehurst Boulevard to LaCross Street, Waverly Street - Pinehurst Boulevard to 665' west of Pinehurst Boulevard (Pinehurst) Chip Seal / I	Fog Seal	20,706.34
Commonwealth Place - Campbell Avenue to Dartmouth Street Chip Seal / H	Fog Seal	6,839.58
Clarendon Street - 154' south of Hillsdale Avenue to Hillsdale Avenue (Prospect Park) Chip Seal / H	Fog Seal	6,067.92
North Arlington Street - M-43 to Jefferson Avenue (Summit Park) Chip Seal / I	Fog Seal	8,116.14
Old Douglas Avenue - Douglas Avenue to G Avenue Chip Seal / I	Fog Seal	17,141.60
Edison Street - Douglas Avenue to Westnedge, Truman Street - Edison Street to G Avenue, Taft Street - Edison Street to G Avenue, George Street - Stassen Street to G Avenue, Glen Street - Stassen Street to Edison Street, Stassen Avenue Edison Street to WEstnedge Avenue (Supervisor's Plat of Northwood)	Fog Seal	40,549.32
Waldorf Street - Edison Street to G Avenue, Glen Street - Waldorf Street to G Avenue (Northwood) Chip Seal / H	Fog Seal	10,498.07
Orchard Avenue - 1,122' west of Douglas Avenue to Douglas Avenue Chip Seal / H	Fog Seal	11,614.00
Burdick Street - Mosel Avenue to 2,436' north of Mosel Avenue Chip Seal / H	Fog Seal	18,862.53
Pitcher Street - Mosel Avenue to 950' north of Mosel Avenue Chip Seal / F	Fog Seal	31,230.73
Silver Hills Avenue - Nazareth Road to 508' east of Enterprise Drive, Enterprise Drive - Silver Hills Avenue to 748' east of Silver Hills Avenue	Chip Seal / Fog Seal	21,518.75
Maple Street - M-43 to 2,448' north of M-43 Crack Fill /	Chip Seal / Fog Seal	23,035.44
Gertrude Street - Sunnyside Drive to Baker Drive Crack Fill / C	Chip Seal / Fog Seal	7,520.32
Francis Avenue - Nazareth Road to 1,332' east of Nazareth Road Crack Fill / Crack F	Chip Seal / Fog Seal	11,770.81
Total Primary Cost		527,711.55

**Total Cost** 

3,064,167.01



## 2021 Oshtemo Township Road Conditions



## **OSHTEMO TOWNSHIP PROJECTS**

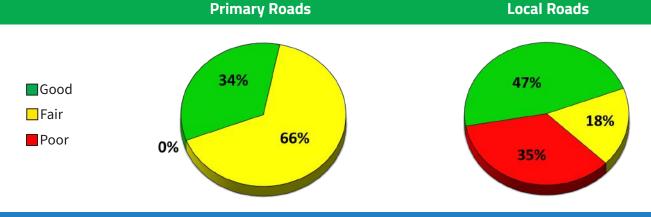
Project Location	Work Performed	Total Cost
Drake Road - KL Avenue to W. Main Street (Oshtemo / Kalamazoo Town- ships)	Chip Seal / Fog Seal	94,591.73
Stadium Drive - 9th Street to 11th Street	Crack Fill	514.66
Stadium Drive - Van Kal Road to 8th Street (Oshtemo / Texas Townships)	Crack Fill	2,139.95
Van Kal Road - Stadium Drive to M Avenue	Crack Fill	102.93
Parkview Drive - Stadium Drive to 12th Street	Crack Fill	1,235.18
N Avenue - 6th Street to 9th Street	Crack Fill	488.93
4th Street - Stadium Drive to M-43	Crack Fill	1,024.17
KL Avenue - 8th Street to 9th Street	Crack Fill	154.40
9th Street - O Avenue to Meeridian Avenue (Oshtemo / Texas Townships)	Crack Fill	2,196.15
Drake Road Trail (Safety Project) - KL Avenue to Green Meadow Road	Trailway	47,535.62
Stadium Drive (Sidewalk) - Quail Run Drive to 11th Street	Roadside Facility	53,108.12
Almena Drive - Van Kal Road to M-43	Crack Fill	11,842.70
12th Street - ON Avenue to Parkview Drive (Oshtemo Township / City of Portage)	Crack Fill	3,382.34
KL Ave - West of Drake Road	Intersection Improvements	14,778.43
Drake Rd - Parkview to M43	Traffic Signal	18,727.48
Parkview Ave - 11th to 12th St	Intersection Improvements	36,406.23
Almena Dr @ 2nd Street	Intersection Improvements	11,333.89
Drake Rd - KL Ave to M-43	HMA Mill Overlay	83,113.67
Total Primary Cost		382,676.57

Project Location	Work Performed	Total Cost
2nd Street - KL Avenue to M-43	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	77,461.97
Bramble Drive - H Avenue to Bay Field Drive, Bay Field Drive - Hollison Drive to Bramble Drive, Hollison Drive - Bay Field Drive to Oak Harbor Street, Oak Harbor Street - Bramble Drive to 544' north of Trayburne Trail, Kelfrey Cove Hollison Drive to Lindenhurst Lane, Lindenhurst Lane - 9th Street to Kelfrey Cove, Trayburne Trail - Lindenhurst Lane to 550' east of Oak Harbor Lane	Crack Fill / Chip Seal / Fog Seal	79,054.59
Chime Street - Erie Street to Stadium Drive, Erie Street - Chime Street to 9th Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	30,689.35
Forest Creek Drive - Stadium Drive to Olde Forest Drive, Olde Forest Drive - Forest Creek Drive to 475' north of Greystone Road, Greystone Road - Olde Forest Drive to 4th Street	Crack Fill / Chip Seal / Fog Seal	28,803.75
HAvenue - 6th Street to 9th Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	79,487.77
Maple Hill Drive - 580' south of M-43 to 1,089' north of Croyden Avenue, Hobbit Circle - 604' west of 4th Street to 4th Street, Stadium Park Way - Stadium Drive to 1,174' north of Stadium drive	Crack Fill / Chip Seal / Fog Seal	57,792.78
Promenade Street - Northstar Avenue to H Avenue, North Star Avenue - 330' south of North Star Avenue to 9th Street	Crack Fill / Chip Seal / Fog Seal	21,939.50
Quail Run Drive - Stadium Drive to 9th Street	HMA Overlay	223,497.43
Tanager Lane - Quail Run Drive to Quail Run Drive, Pheasant Lane - Tana- ger Lane to Quail Run, Partridge Lane - Quail Run Drive to Quail Run	Crack Fill / Chip Seal / Fog Seal	31,297.25
Total Local Cost		630,024.40

1,012,700.96



## 2021 Pavilion Township Road Conditions



## **PAVILION TOWNSHIP PROJECTS**

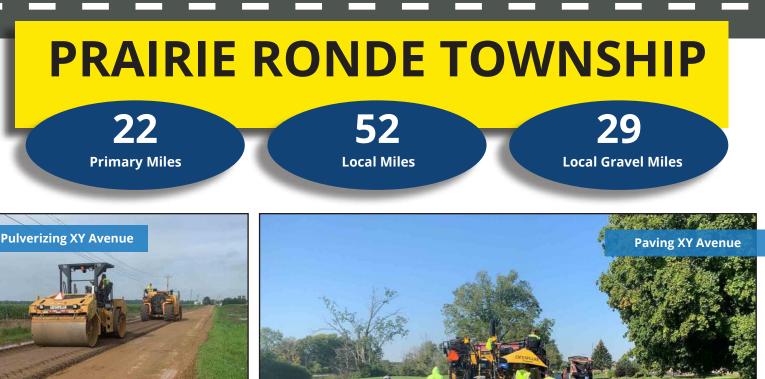
Project Location	Work Performed	Total Cost
S. Sprinkle Road - Milham Avenue to N Avenue (Pavilion Township / City of Portage)	Mill / HMA Overlay / Culvert	2,861,817.59
S Avenue - 29th Street to 34th Street	Reconstruction	63,224.22
Sprinkle Road - S Avenue to Zylman Avenue (Pavilion Township / City of Portage )	HMA Wedging / Chip Seal / Fog Seal	20,971.48
S Avenue - 34th Street to 36th Street	Chip Seal / Fog Seal	42,374.48
24th Street - Sprinkle Road to R Avenue, R Avenue - 24th Street to 25th Street, 25th Street - R Avenue to QR Avenue	Crack Fill	1,626.32
Sprinkle Road - V Avenue to S Avenue (Pavilion / Brady Townships)	Crack Fill	1,554.58
29th Street - S Avenue to N Avenue	Crack Fill	14,534.22
Q Avenue - 34th Street to 35th Street	Crack Fill	179.43
Total Primary Cost	·	3,006,282.31

Project Location	Work Performed	Total Cost
31st Street - Q Avenue to OP Avenue	Crack Fill / Chip Seal	26,950.79
33rd Street - T Avenue to S Avenue	Crack Fill / HMA Wedging / Chip Seal	58,826.05
33rd Street - O Avenue to N Avenue	Crack Fill / Chip Seal	17,590.21
34th Street - TS Avenue to R Avenue	Crack Fill / HMA Wedging / Chip Seal	48,147.86
34th Street - R Avenue to Q Avenue	Crack Fill / HMA Wedging / Chip Seal	47,926.39
O Avenue - 2,550' west of 32nd Street to 33rd Street	Crack Fill / HMA Wedging / Chip Seal	38,229.50
R Avenue - 29th Street to 32nd Street	Crack Fill / HMA Wedging / Chip Seal	39,390.01
R Avenue - 33rd Street to 34th Street	Crack Fill / Chip Seal	12,700.00
R Avenue - 34th Street to 36th Street	Crack Fill / HMA Wedging / Chip Seal	51,011.10
TS Avenue - 33rd Street to 34th Street	Chip Seal	20,175.75
35th Street - R Avenue to Q Avenue	Chip Seal	22,478.55
Total Local Cost		383,426.22

#### Total Cost

3,389,708.53

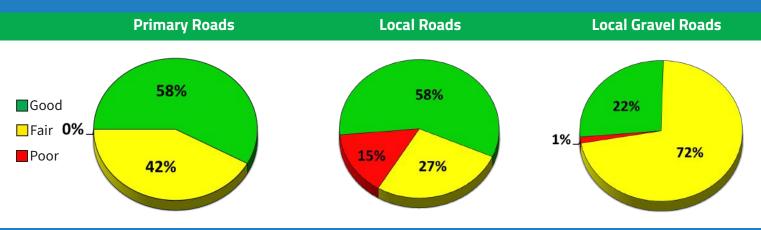








## 2021 Prairie Ronde Township Road Conditions



## PRAIRIE RONDE TOWNSHIP PROJECTS

Project Location	Work Performed	Total Cost
U Avenue - Vankal Road to US-131 (Prairie Ronde / Schoolcraft Town- ships)	HMA Wedging / Chip Seal / Fog Seal	180,371.69
2nd Street - Z Avenue to W Avenue	Crack Fill	85.78
W Avenue - 2nd Street to 4th Street	Crack Fill	720.52
8th Street - XY Avenue to W Avenue	Pulverize / HMA Overlay / Shoulder Widen	736,052.71
XY Avenue - 8th Street to US-131(Prairie Ronde / Schoolcraft Townships)	Mill / HMA Overlay / Shoulder Widen	1,321,881.74
W Avenue - 2nd Street to 4th Street	Reconstruction	6,475.94
8th Street - 2,640' south of U Avenue to 2,640' north of U Avenue	Crack Fill	1,794.35
Total Primary Cost		2,247,382.71

	Project Location	Work Performed	Total Cost
	5th Street - W Avenue to V Avenue	Crack Fill / HMA Wedging / Chip Seal	39,473.93
	11th Street - 220' south of Woodbrook Street to XY Avenue	Crack Fill / HMA Wedging / Chip Seal	20,516.36
3	Paw Paw Lake Drive - 1,420' west of 4th Street to 70' east of 4th Street	Crack Fill / HMA Wedging / Chip Seal	15,600.10
2	Prairie Brook Street - YZ Avenue to 1,460' north of YZ Avenue	HMA Overlay	47,247.16
	Van Kal Street - Z Avenue to XY Avenue	Gravel Resurfacing	67,911.71
	Z Avenue - 2,000' west of 2nd Street to 2nd Street	Gravel Resurfacing	14,539.89
	Total Local Cost		205,289.14

#### Total Cost

#### 2,452,671.86



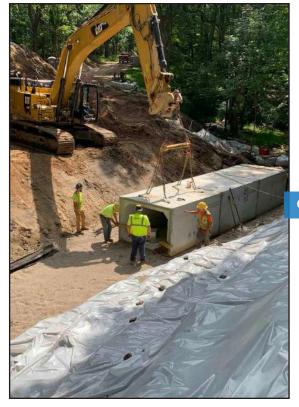


## **RICHLAND TOWNSHIP**

#### 27 Primary Miles

**49** Local <u>Miles</u>

4 Local Gravel Miles



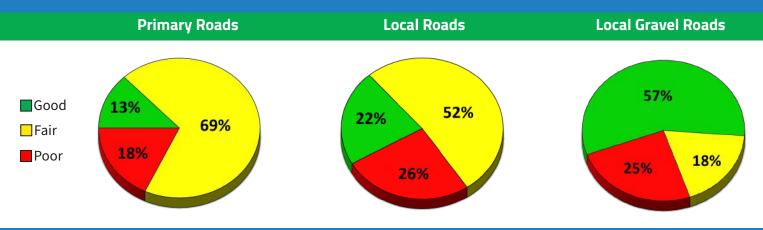


Culvert installations on CD Avenue





## 2021 Richland Township Road Conditions



## **RICHLAND TOWNSHIP PROJECTS**

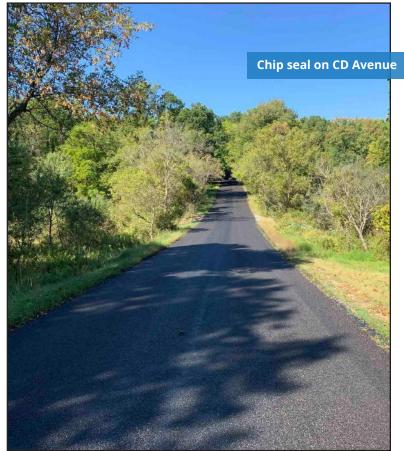
Project Location	Work Performed	Total Cost
DE Avenue - Sprinkle Road to 26th Street	Crack Fill	448.59
Total Primary Cost		448.59

Project Location	Work Performed	Total Cost
AB Avenue - 29th Street to 30th Street	Gravel / Pulverize	10,339.86
AB Avenue - 28th Street to 29th Street	Gravel / Pulverize / HMA Base and Surface Paving	309,791.37
CD Avenue - 24th Street to D Avenue	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	53,788.22
DE Avenue - 35th Street to 3,590' east of 35th Street	Crack Fill / Chip Seal / Fog Seal	22,417.28
34th Street - M-89 to D Avenue	Crack Fill / Chip Seal / Fog Seal	6,538.54
D Avenue - M-89 to 2,640' east of 35th Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	78,990.31
AB Avenue - M-89 to 28th Street	Gravel / Pulverize / HMA Base & Surface Paving	307,680.09
CD Avenue over Spring Brook	Culvert replacement 6' span (30/70 Share)	274,042.59
36th Street - G Avenue to FG Avenue (Richland / Ross Townships)	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	23,117.60
24th Street / AB Avenue - D Avenue to M-89	Pulverize / HMA Overlay / Shoulder Widen	156,462.68
N. Sprinkle Road over Spring Brook	Bridge Maintenance	12,249.61
Total Local Cost		1,255,418.14

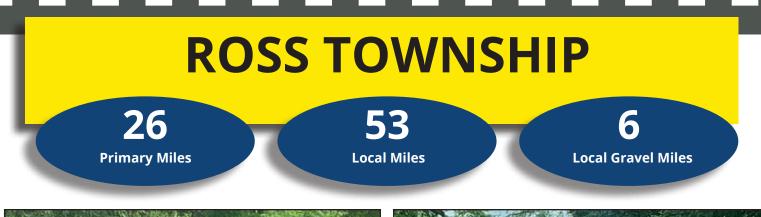
#### **Total Cost**





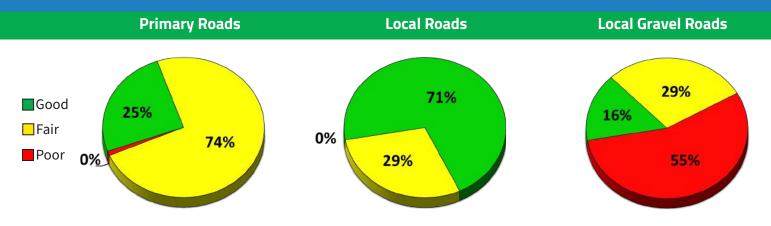


#### 1,255,866.73



<image>

## 2021 Ross Township Road Conditions



## **ROSS TOWNSHIP PROJECTS**

Project Location	Work Performed	Total Cost
37th Street - M-96 to G Avenue ( Charleston / Ross Townships)	Chip Seal / Fog Seal	11,255.11
37th Street - D Avenue to CD Avenue	Chip Seal / Fog Seal	14,423.67
CD Avenue - 36th Street to 37th Street	HMA Wedging / Chip Seal / Fog Seal	20,063.05
Total Primary Cost		45,741.83

Project Location	Work Performed	Total Cost
36th Street - G Avenue to FG Avenue (Ross / Richland Townships)	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	23,119.04
Heights Drive - Gull Lake Drive East to 683' east of Gull Lake Drive East	Crack Fill / Chip Seal / Fog Seal	8,650.08
44th Street - 3,650' south of M-89 to M-89	Crack Fill / Chip Seal / Fog Seal	23,543.59
39th Street - FG Avenue to 38th Street	Crack Fill / Chip Seal / Fog Seal	40,536.11
38th Street - North Sherman Lake Drive to M-89	Crack Fill / Chip Seal / Fog Seal	29,225.56
North Sherman Lake Drive - 3,168' south of 38th Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	24,515.12
Pinebrook Drive - 850' west of 48th Street to 48th Street	Crack Fill / Chip Seal / Fog Seal	9,665.62
44th Street - Augusta Drive to 540' north of Augusta Drive	Crack Fill / Chip Seal / Fog Seal	6,453.22
Total Local Cost		165,708.34

#### **Total Cost**

#### 211,450.17



## SCHOOLCRAFT TOWNSHIP

#### 28 Primary Miles

**34** Local Miles





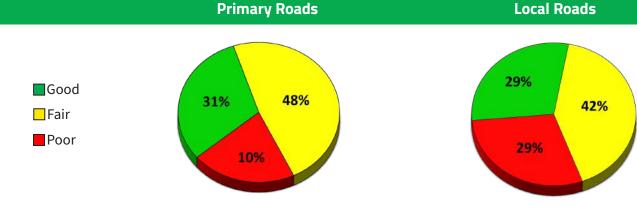


U Avenue chip seal/fog seal, and left-turn lane corrections





## 2021 Schoolcraft Township Road Conditions



## SCHOOLCRAFT TOWNSHIP PROJECTS

Project Location	Work Performed	Total Cost
U Avenue - Oakland Drive to Portage Road	Left-turn Lane / Superelevation corrections	1,545,566.35
U Avenue - Vankal Road to US-131 (Schoolcraft / Prairie Ronde Town- ships)	HMA Wedging / Chip Seal / Fog Seal	15,684.37
Portage Road - W Avenue to VW Avenue	Chip Seal / Fog Seal	18,744.22
Y Avenue - Portage Road to 24th Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	65,294.20
VW Avenue - 2,640' west of Oakland Drive to 18th Street	Crack Fill	169.84
W Avenue - 14th Street to 2,640' east of 16th Street	Crack Fill	2,223.32
XY Avenue - 8th Street to US-131 (Schoolcraft / Prairie Ronde Townships)	Mill / HMA Overlay / Shoulder Widen	310,071.16
U Avenue - US-131 to Oakland Drive	Crack Fill	6,878.34
Total Primary Cost	·	1,964,631.80

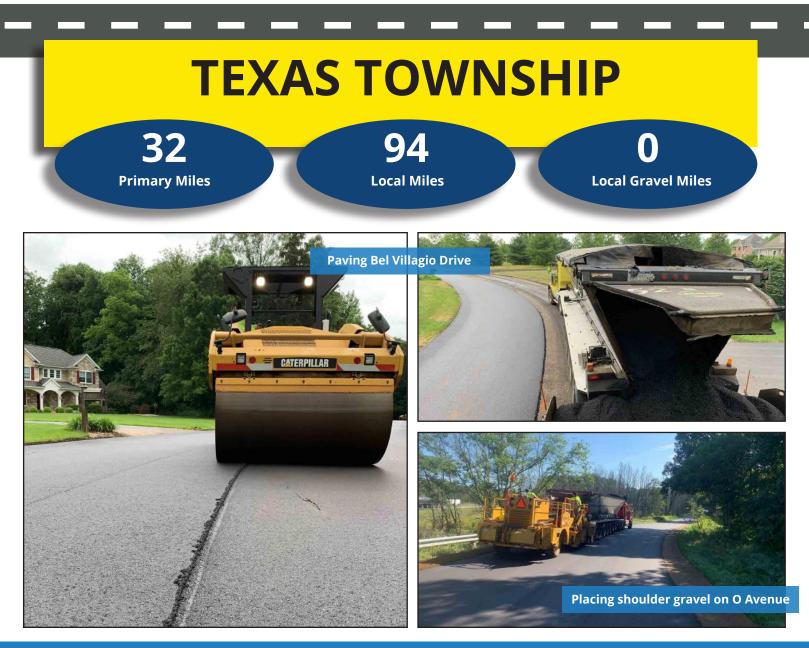
Project Location	Work Performed	Total Cost
Panama Street - 454' west of Canal Street to 317' east of Canal Street, Canal Street - Panama Street to Portage Road, Balboa Street - 243' west of Canal Street to Canal Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	28,656.87
23rd Street - TU Avenue to 2,550' north of TU Avenue	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	22,128.87
Jasmine Avenue - Crocus Street to 616' east of Honeysuckle Street, Hon- eysuckle Street - VW Avenue to Jasmine Avenue	Crack Fill / Chip Seal / Fog Seal	19,741.61
Jo-Fran Avenue - Portage Road to Jimmy Drive	Crack Fill / Chip Seal / Fog Seal	11,727.60
15th Street - 2,650' south of YZ Avenue to YZ Avenue	Gravel Pulverize / Double Chip Seal / Fog Seal	131,010.94
15th Street - 2,300' south of YZ Avenue	Culvert Replacement	25,305.77
Channelview Avenue - 23rd Street to Waterview Avenue, Waterview Avenue - 23rd Street to 220' south of Channelview Avenue, Bayview Ave- nue - Waterview Avenue to Peninsular Drive, Peninsular Drive - Bayview Avenue to 578' east of Bayview Avenue	HMA Overlay	137,320.70
Total Local Cost		375,892.37

#### **Total Cost**

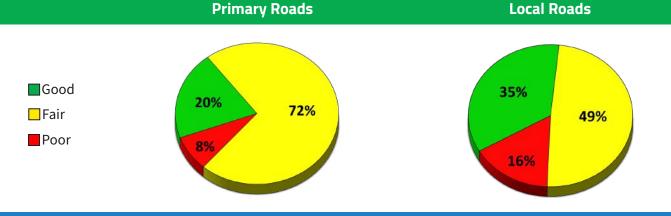
#### 2,340,524.17







## 2021 Texas Township Road Conditions



## **TEXAS TOWNSHIP PROJECTS**

Project Location	Work Performed	Total Cost
8th Street - S Avenue to R Avenue	Chip Seal / Fog Seal	46,867.82
Stadium - Van Kal Road to 8th Street (Texas / Oshtemo Townships)	Crack Fill	639.21
9th Street - O Avenue to Meeridian Avenue (Texas / OshtemoTownships)	Crack Fill	1,725.54
Q Avenue - 3rd Street to 5th Street	Crack Fill	897.17
8th St - S Ave to R Ave	Safety Improvements	40,312.53
Total Primary Cost		90,442.26

Project Location	Work Performed	Total Cost
2nd Street - RS Avenue to R Avenue	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	15,492.32
10th Street - 5,280' south of S Avenue to R Avenue	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	92,719.09
Hickory Hill Lane - 1,531' west of 12th Street to 12th Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	17,673.00
Pine Island Court North - 1,016' east of Finnagen Street to Finnagen Street	Crack Fill / Chip Seal / Fog Seal	14,019.20
Selah Court - PQ Avenue to 652' north of PQ Avenue	Crack Fill / Chip Seal / Fog Seal	7,781.84
10th Street - R Avenue to Q Avenue	HMA Overlay	204,847.16
10th Street - Q Avenue to Texas Drive	HMA Overlay	192,838.01
Bel Villagio Drive - S Avenue to Bel Shore Lane, Bel Shore Lane - 659' west of Pleasant Meadow Trail to 341' east of Bel Villagio Drive, Pleasant Meadow Trail - Bel Shore Lane to Bel Villagio Drive	HMA Overlay	108,033.69
O Avenue - 4th Street to 6th Street	HMA Overlay	151,757.56
Riesling Street - PQ Avenue to Chianti Circle, Chianti Circle - PQ Avenue to Riesling Street	HMA Overlay	109,556.55
Treasure Island Drive - Pepper Avenue to 2,544' north of Pepper Avenue, Pepper Avenue - Treasure Island Drive to 667' east of Finnagen Street, Woods Drive - Treasure Island Drive to 934' north of Treasure Island Drive, Finnagen Street - PQ Avenue to Pepper Avenue	HMA Base and Leveling Paving	426,893.03
Total Local Cost		1,341,611.43

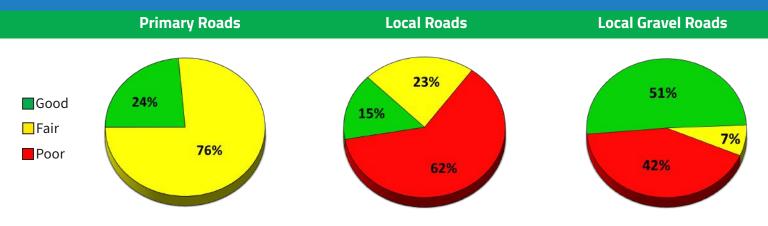
#### **Total Cost**

#### 1,432,053.70





## 2021 Wakeshma Township Road Conditions



## WAKESHMA TOWNSHIP PROJECTS

5	Project Location	Work Performed	Total Cost
	YZ Avenue - 38th Street to 42nd Street	Crack Fill / HMA Wedging / Chip Seal / Fog Seal	102,280.07
	W Avenue - 36th Street to 42nd Street	Crack Fill	4,186.81
РВ	Total Primary Cost		106,466.88

LOCAL	Project Location	Work Performed	Total Cost
	47th Street - W Avenue to UV Avenue	Crack Fill / HMA Wedging / Chip Seal	57,581.53
	39th Street - TU Avenue to T Avenue	Gravel / Pulverize / HMA Base & Surface Paving	184,705.28
	X Avenue - 38th Street to 40th Street	Gravel / Pulverize	121,494.45
	X Avenue - 37th Street to 38th Street	Gravel Resurfacing	83,906.11
	Y Avenue - 1,500' west of 37th Street to 37th Street	Gravel Resurfacing	11,591.17
	Total Local Cost		459,278.54

#### **Total Cost**

565,745.42



# 1,270 TOTAL MILES 446 PRIMARY MILES

63

BRIDGES

# 2021 RCKCFACTS & FIGURES

**INTERSECTIONS** WITH FLASHING **BEACON** 

<u>4</u>5|

824 LOCAL MILES

## 211 PROJECTS MANAGED

109 GRAVEL MILES

#### **17 MILES OF PRIMARY ROADS PAVED**

#### **13 MILES OF LOCAL ROADS PAVED**

34 MILES OF PRIMARY ROADS CHIP SEALED

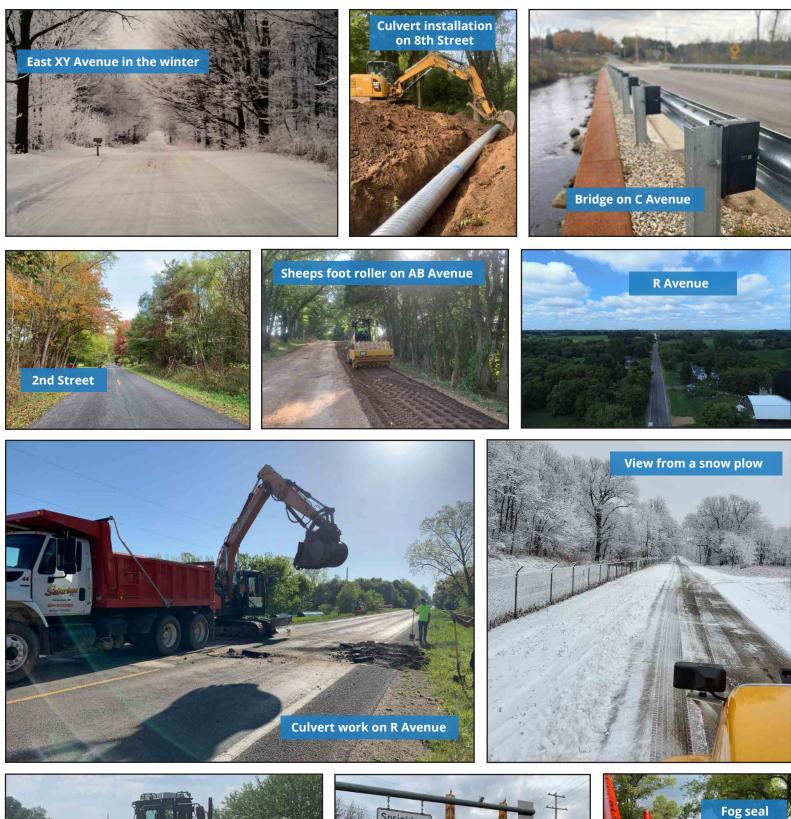
67 MILES OF LOCAL ROADS CHIP SEALED

**3,158** STOP SIGNS

306 ALL-SEASON MILLES



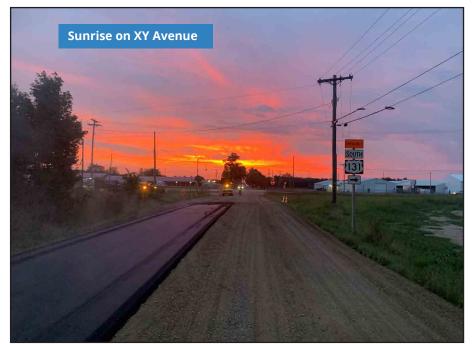
49 SIGNALIZED INTERSECTIONS





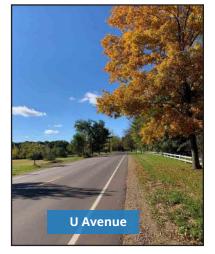


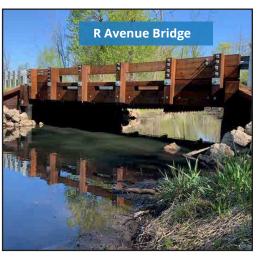




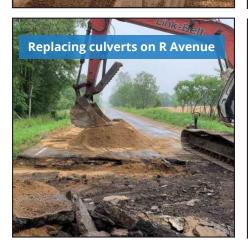






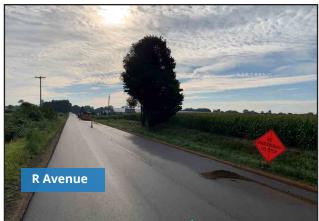


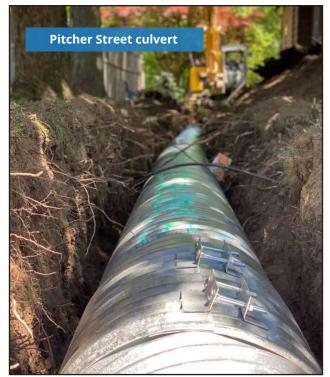














Road Commission of Kalamazoo County