

Transportation Asset Management Plan 2024 - 2026



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Introduction

Roads, bridges, culverts and traffic signals are some of the most important assets in any community. The cost of building and maintaining this infrastructure, their importance to society and the investment made by taxpayers all place a high level of responsibility on local agencies to plan, build and maintain the road network in an efficient and effective manner.

Asset management is defined by Public Act 325 of 2018 as “an ongoing process of maintaining, preserving, upgrading, and operating physical assets cost effectively, based on a continuous physical inventory and condition assessment and investment to achieve established performance goals”. Asset management, in the context of this plan, ensures that public funds are spent as effectively as possible to maximize the condition of the road network. Asset management also provides a transparent decision-making process that allows the public to understand the technical and financial challenges of managing road infrastructure with a limited budget.

The Washtenaw County Road Commission (WCRC) has adopted an “asset management” business process to overcome the challenges presented by having limited financial, staffing and other resources while needing to meet road users’ expectations. This process is endorsed by leaders in municipal planning and transportation infrastructure, including the Michigan Municipal League, County Road Association of Michigan, the Michigan Department of Transportation (MDOT) and the Federal Highway Administration (FHWA). WCRC is supported in its use of asset management principles and processes by the Michigan Transportation Asset Management Council (TAMC), formed by the State of Michigan.

This plan outlines how WCRC determines its strategy to maintain and upgrade roads and bridges given agency goals, priorities of its road users and resources provided. An updated plan is to be released every three years to reflect changes in road conditions, finances and priorities.

An asset management plan is required by Michigan Public Act 325 of 2018, and this document represents fulfillment of WCRC’s obligations towards meeting these requirements. This asset management plan also helps demonstrate WCRC’s responsible use of public funds by providing elected and appointed officials as well as the public with inventory, condition and planned projects for WCRC’s road and bridge assets.

Questions regarding the use or content of this plan should be directed to:

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Asset Inventory and Condition

Roads

WCRC is responsible for approximately 1,651 centerline miles of public roads. Public roads are classified in multiple ways.

State Classifications

In Michigan, road classifications are determined by Public Act 51 of 1951 also known as Act 51. Act 51 has been amended many times since it was first passed 70 years ago but it remains the core legislation related to roads in Michigan. [Click here to read more about Act 51 from the State of Michigan's website.](#)

In Michigan, per Act 51, public roads within a county are classified by MDOT as either state trunkline, primary or local roads. State trunkline roads are under the direct control of MDOT. Primary and local roads are under the county road agency's jurisdiction.

The state trunkline consists of roads, streets and highways, found both inside and outside limits of incorporated cities and villages. State trunkline roads in Washtenaw County include I-94, US-23, US-12 (Michigan Avenue), M-14, M-17 (Washtenaw Avenue), M-52 and M-153 (Ford Road).

Primary roads are the backbone of the county road system. Primary roads connect communities and local roads often to state trunklines. Examples of primary roads in Washtenaw County include Austin Road, Carpenter Road, Plymouth Road, State Road, Jackson Road, etc.

Local¹ county roads are further classified by Act 51 as either local collector or local subdivision roads. Local collector roads have the main function of connecting homes and business to county primary roads or state trunklines. Local subdivision roads have the main function of providing access to and from adjacent properties within a subdivision or business park.

Of WCRC's 1651.62 miles of road, 590.9 miles are classified as county primary and 1,060.72 miles are classified as county local. [Click here to see WCRC's road certification maps for each township.](#)

WCRC is not responsible for maintenance or construction of roads within Washtenaw County's cities and villages. Roads within cities and villages are under the sole jurisdiction of the respective city or village.

¹ In addition to local roads, the term "local" is used in other ways within the Michigan transportation world. MDOT will often refer to "local agencies" meaning county road commissions, county road departments, cities and villages. MDOT also has a "Local Bridge Program" which is a funding mechanism for funding bridge projects on county, city and village roads. See page 28 to see the Local Bridge Program projects planned in Washtenaw County for 2024 – 2026.

Figure 1: Percentage of county primary and county local roads for WCRC.

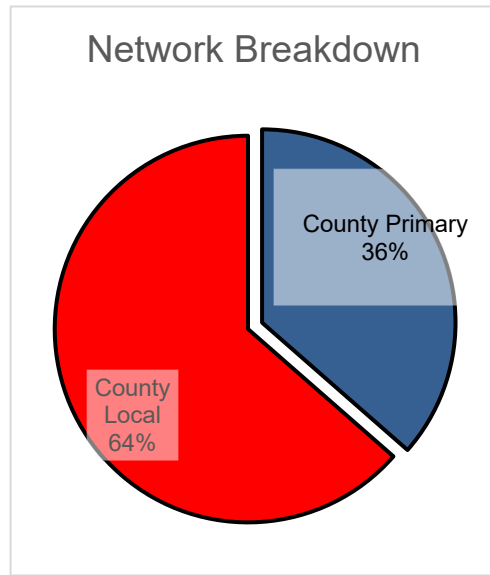
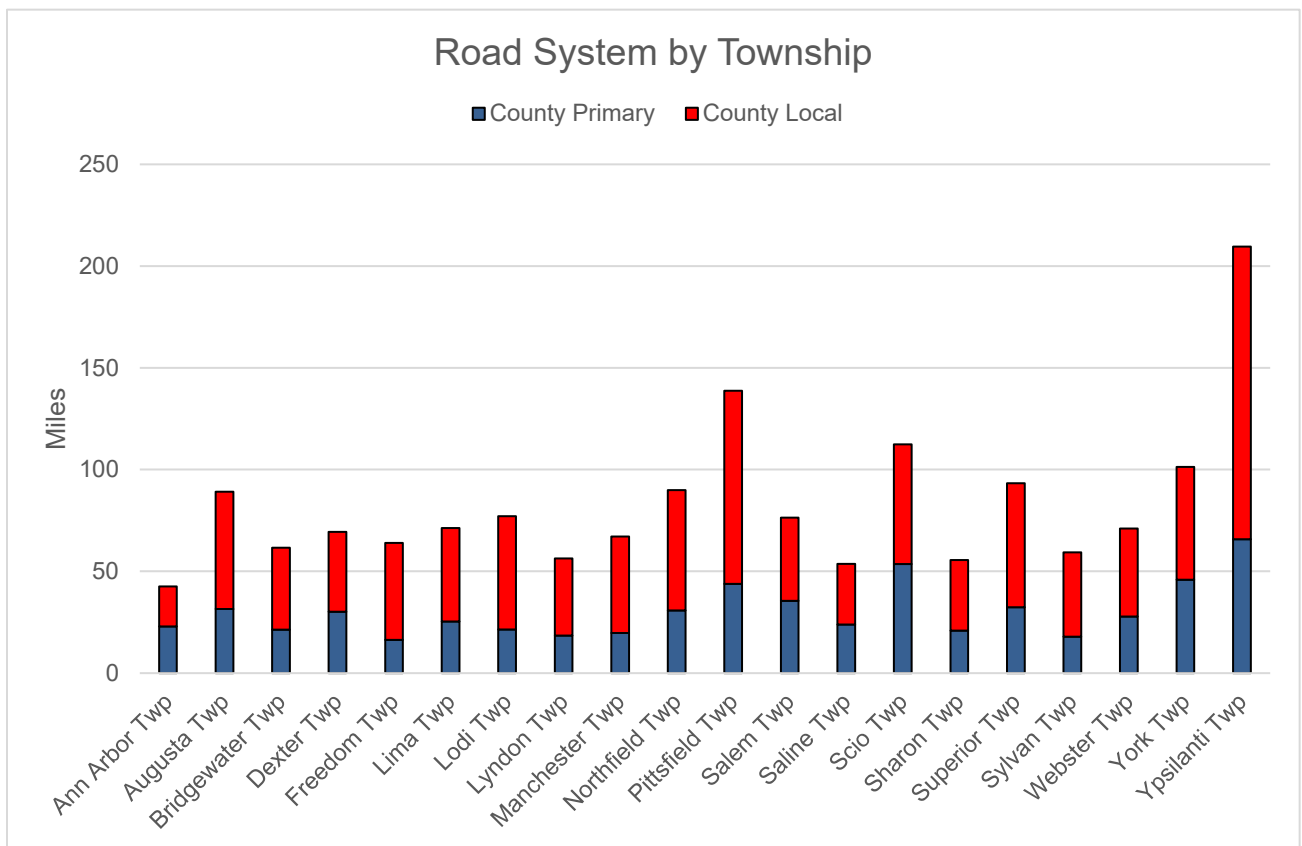


Figure 2: County primary and county local roads by township for WCRC's jurisdiction.



Federal Classifications

At the federal level, roads are classified through the National Functional Classifications (NFC) System administered by the FHWA.

Of the 590.9 centerline miles of primary public roads under WCRC's jurisdiction, approximately 82% are classified through the NFC as federal-aid eligible. This designation allows them to receive federal funding for their rehabilitation and construction.

Within these primary roads eligible for federal funds, there are 24.9 centerline roads that are also classified as a part of the National Highway System (NHS). Roads classified as a part of the NHS are subject to special rules and regulations and have their own performance metrics dictated by the FHWA.

Conversely, of the 1,060.72 centerline miles of local roads under WCRC's jurisdiction, only 2% are classified as federal-aid eligible.

Surface Type

To the typical resident, the most important designation of their roads is the surface type. Roads come in two basic forms—paved and unpaved. Paved roads have hard surfaces. These hard surfaces can be constructed from various pavement materials, including asphalt, concrete, composite (asphalt and concrete) and sealcoat. On the other hand, unpaved roads have no pavement but are composed of aggregates and underlying soils.

Whether or not a road is paved with asphalt, concrete or left unpaved, surface type is influenced by several different factors, such as cost of construction, cost of maintenance, frequency of maintenance and type of maintenance. These factors all influence asset life and the road user experience.

In Washtenaw County, WCRC is responsible for a variety of road surfaces including approximately 900 miles of paved roads (513 miles of paved primary, 396 miles of paved local) and 760 miles of unpaved roads (78 miles of unpaved primary, 665 miles of unpaved local). These surface types are further explained below.

Figure 3: WCRC road surface type by percentage

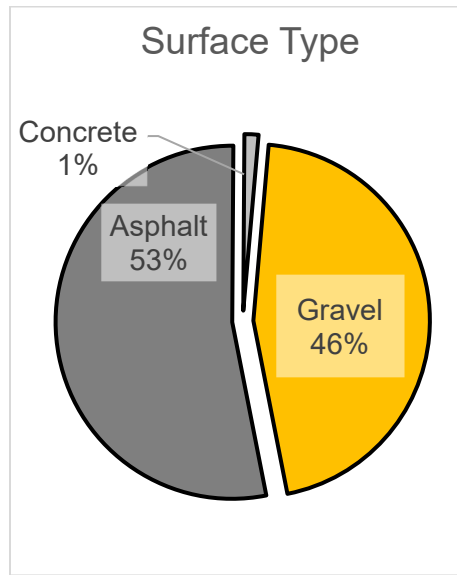
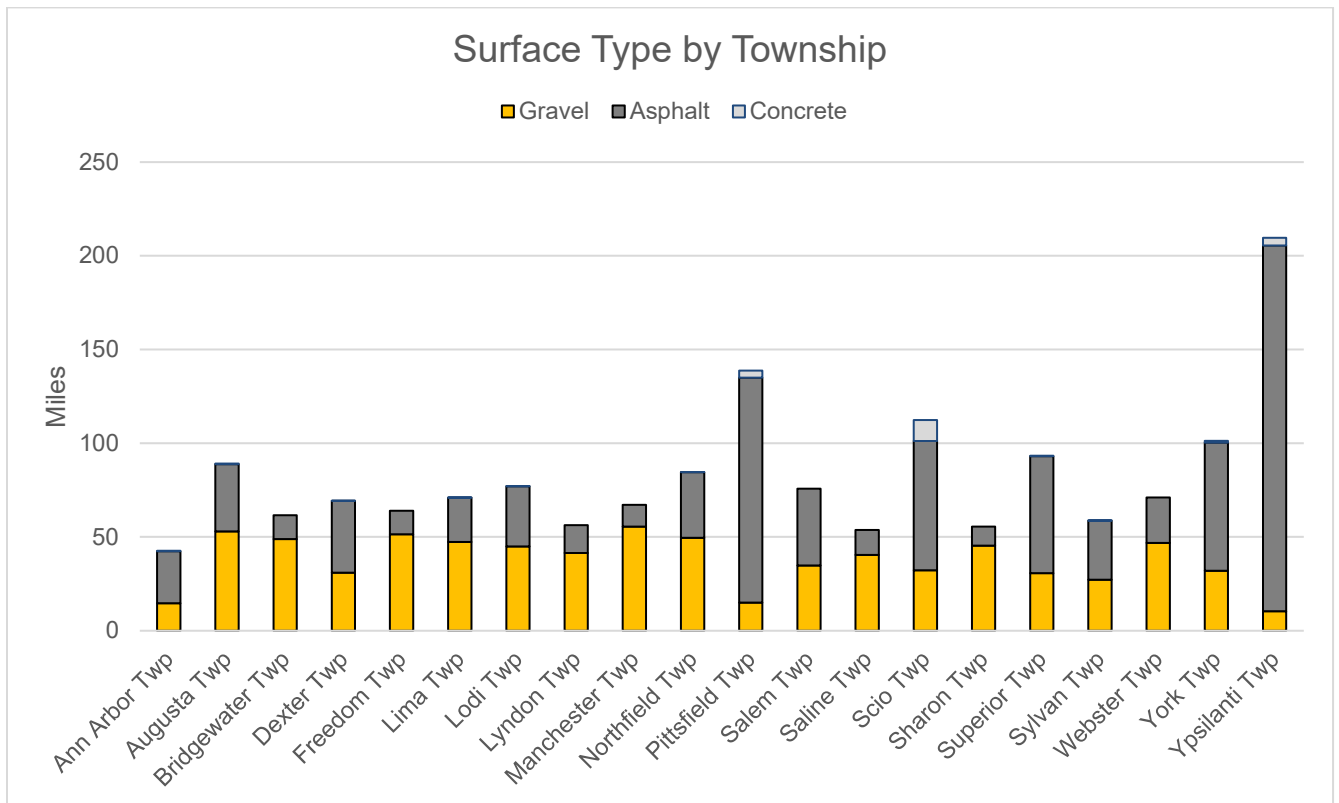


Figure 4: WCRC road surface type by township



Concrete pavement: Concrete pavement, which is sometimes called a rigid pavement, is durable and lasts a long time when properly constructed and maintained. Concrete pavement can have longer service periods between maintenance activities, which can help reduce maintenance-related traffic disruptions. However, concrete pavements have a high initial cost and can be challenging to rehabilitate and maintain at the end of their service life. A typical concrete pavement design life will provide service for 30 years with appropriate preventative maintenance.

Hot-mix asphalt pavement (HMA): HMA pavement, sometimes known as asphalt or flexible pavement, is currently less expensive to construct than concrete pavement. However, HMA requires frequent maintenance activities to maximize its service life. A typical HMA pavement design life will provide service for 20 years with appropriate preventative maintenance. The vast majority of WCRC's pavements are HMA pavements.

Composite pavement: Composite pavement is a combination of concrete and asphalt layers. Typically, composite pavements are old concrete pavements exhibiting ride-related issues that were overlaid by several inches of HMA in order to gain more service life from the pavement before it would need reconstruction. Converting a concrete pavement to a composite pavement is typically used as a "holding pattern" treatment to maintain the road in usable condition until reconstruction funds become available.

Gravel/Limestone: Gravel or limestone are low-cost road surfaces made from layers of soil and aggregate. In the right conditions, a properly constructed and maintained gravel road can provide a service life comparable to an HMA pavement and can be significantly less expensive than the other pavement types. There are several potential drawbacks such as dust, mud and ride smoothness when maintenance is delayed or traffic increases. Gravel roads require frequent low-cost maintenance activities. Gravel can be very cost effective for lower-volume roads.

Inventory and Condition

Background

WCRC is committed to monitoring the condition of its road network and using data to drive cost-effective decision-making and preservation of valuable road assets.

For paved roads, WCRC uses the Pavement Surface Evaluation and Rating (PASER) system. PASER was developed by the University of Wisconsin Transportation Information Center to provide a simple, efficient and consistent method for evaluating road condition through visual inspection. The widely used PASER system has specific criteria for assessing pavements.

Meanwhile, unpaved roads are very difficult to evaluate. Their condition varies dramatically depending on the season and weather conditions. Due to their constantly changing condition, WCRC does not rate unpaved roads, but staff are very aware of the general condition of unpaved roads through direct observation.

PASER

Michigan's Transportation Asset Management Council (TAMC) has adopted the PASER system for measuring statewide pavement conditions in Michigan. Broad use of the PASER system means that data collected at WCRC is consistent with data collected statewide. PASER data is collected using trained inspectors in a slow-moving vehicle and GPS-enabled data collection software.

The PASER system rates surface condition using a 1-10 scale where 10 is a brand-new road with no defects that can be treated with routine maintenance, 5 is a road with distresses but is structurally sound that can be treated with preventative maintenance and 1 is a road with extensive surface and structural distresses that needs total reconstruction. PASER scores are grouped into TAMC definition categories of good (8-10), fair (5-7), and poor (1-4) categories.

Roads with lower PASER scores generally require costlier treatments to restore their quality than roads with higher PASER scores. As a road deteriorates, it costs more dollars per mile to fix it, and the dollars spent on maintenance are less efficient in increasing the road's service life. Understanding this cost principle helps to draw meaning from the current PASER condition assessment.

"Good" roads: According to the TAMC, have PASER scores of 8, 9 or 10. Roads in this category have very few, if any, defects and only require minimal maintenance; they may be kept in this category longer using planned pavement maintenance. These roads may include those that have been recently resurfaced or newly constructed.

"Fair" roads: According to the TAMC, have PASER scores of 5, 6 or 7. Roads in this category still show good structural support, but their surface is starting to deteriorate. Preventative maintenance can be cost effective for maintaining the road's "fair" condition or even raising it to "good" condition before the structural integrity of the pavement has been severely impacted. These treatments can be likened to shingles on a roof of a house: while the shingles add no structural value, they protect the house from structural damage by maintaining the protective function of a roof covering.

"Poor" roads: According to the TAMC, have PASER scores of 1, 2, 3 or 4. These roads exhibit evidence that the underlying structure is failing, such as alligator cracking and rutting. These roads must be rehabilitated with treatments like a multi-layer resurfacing, pulverization and resurfacing, or total reconstruction.

WCRC's Ratings

WCRC collected PASER data every two years on its paved primary road system and beginning in 2021 decided to collect it every year. WCRC also collects PASER data on its paved local roads every two years.

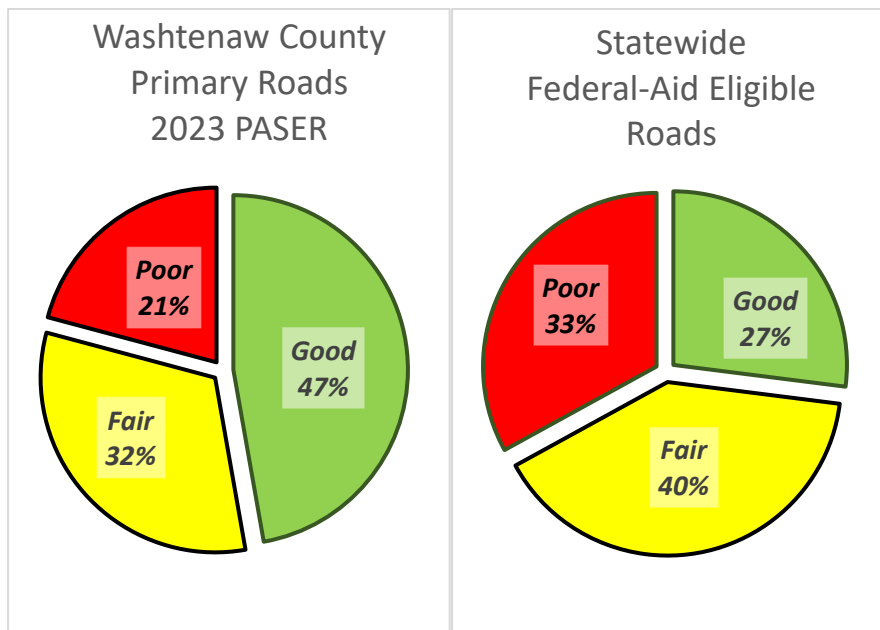
Primary Road Ratings

In 2023, the county primary network of roads has:

- 47% in good condition
- 32% in fair condition
- 21% in poor condition

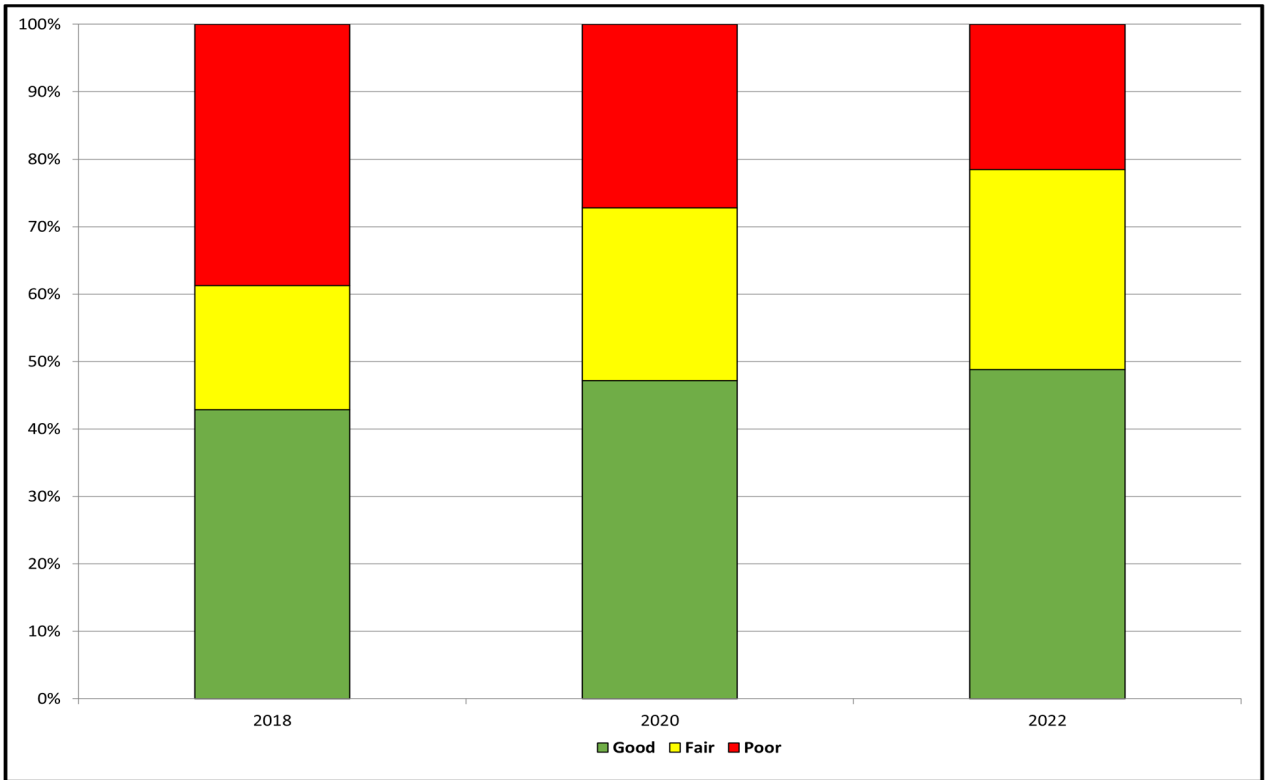
In comparison, the statewide paved, county federal-aid eligible system² has 27% of roads in the TAMC good condition category, 40% in fair, and 33% in poor (Figure 5B). These figures shows that WCRC's paved county primary road network is better than similarly classified roads in the rest of the state. [Click here to view other road condition graphs on the TAMC pavement condition dashboard.](#)

Figure 5: (A) Left: WCRC paved primary road PASER (2023) and (B) Right: Statewide federal-aid eligible system conditions



² County-owned, federal-aid eligible roads are nearly always primary roads in Michigan.

Figure 6: Paved county primary network condition trend, 2018 - 2022



See Appendix A for the recent PASER Condition Map for Primary Roads in Washtenaw County.

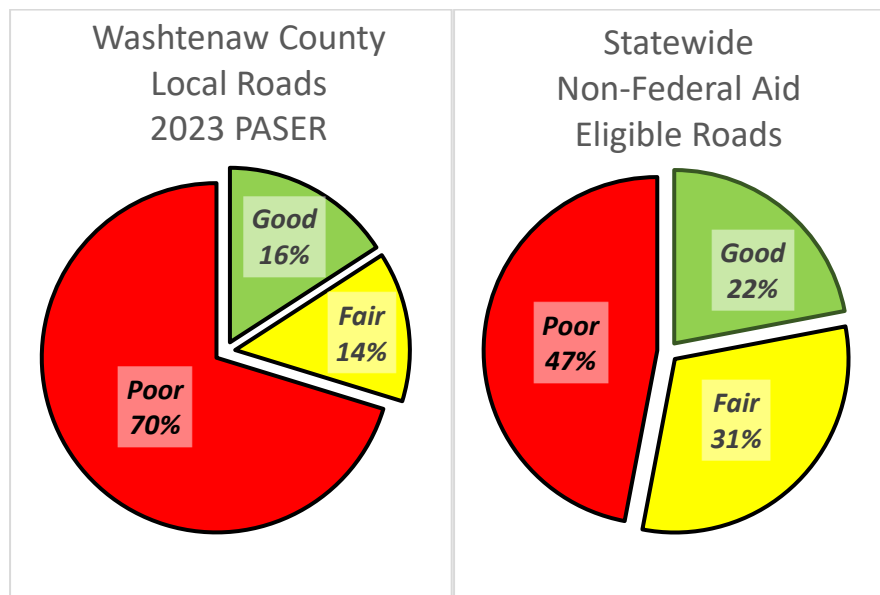
Local Road Ratings

The county local network of roads has:

- 16% in good condition
- 14% in fair condition
- 70% in poor condition

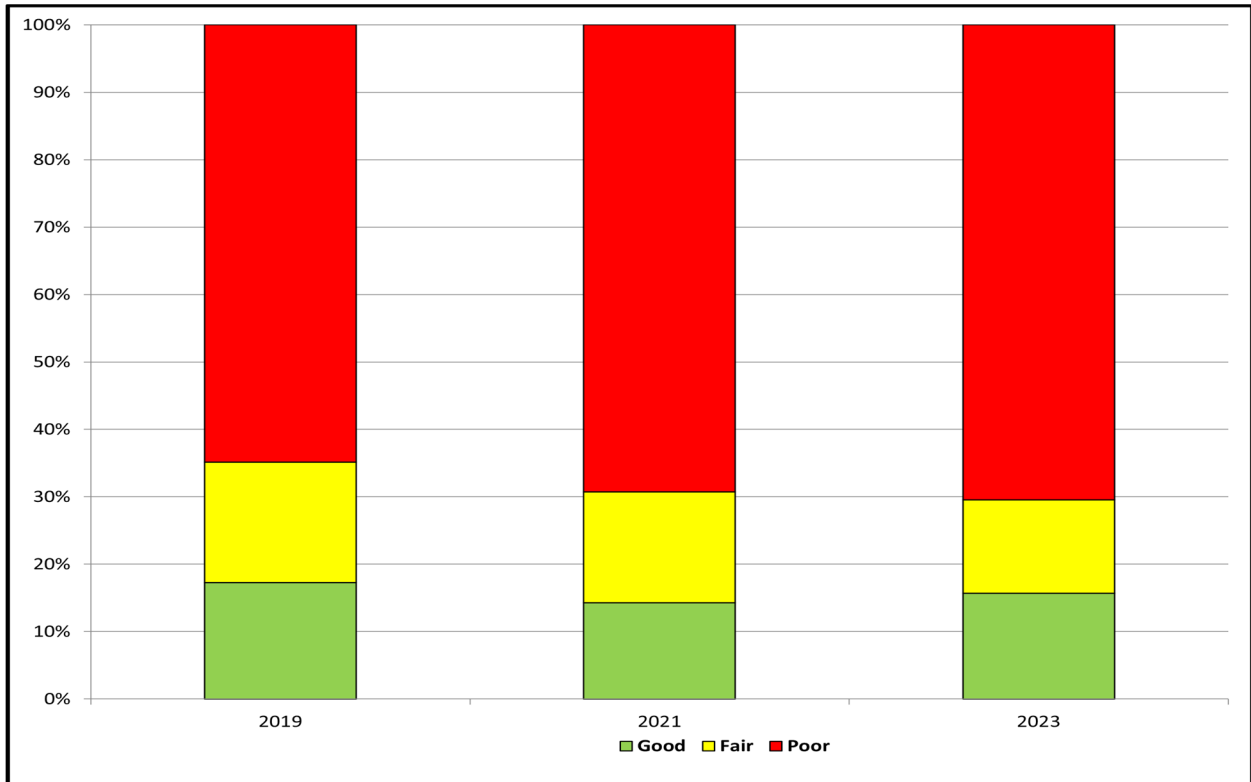
In comparison, the statewide paved non, federal-aid eligible system³ has 22% in good, 31% in fair, and 47% in poor (Figure 7B). [Click here to view other road condition graphs on the TAMC pavement condition dashboard.](#)

Figure 7: (A) Left: WCRC paved local road PASER (2023) and (B) Right: Paved non, federal-aid eligible system conditions



³ County-owned, non federal-aid eligible roads are nearly always local roads in Michigan.

Figure 8: County local network condition trend, 2019 – 2023



Unfortunately, as Figure 7 and Figure 8 show, there is a very challenging situation on local paved roads in Washtenaw County. There was a major subdivision building boom in the 1990s and early 2000s in Washtenaw County. With these new subdivisions came new roads. Unfortunately, these roads are now reaching the end of their design life and the condition assessment reflects that.

Solving the problems on Washtenaw County's local road system will require significant local investment. There is no federal funding available to local roads and the state road funding allocated for local roads barely covers WCRC's costs for routine maintenance such as snow plowing, pothole patching and grading. Under current state law, any improvements to a local road (for example resurfacing) must have at least 50% of its funding come from a source other than the road commission, often the township. Due to lack of funding to maintain local subdivision roads, WCRC's procedures and regulations were changed in 2014 to only accept platted subdivisions into the county road network. Since that time, most new subdivisions roads constructed in Washtenaw County are private roads, outside of the jurisdiction or responsibility of WCRC.

Knowing that funding local road improvements is challenging, the Washtenaw County Board of County Road Commissioners has historically transferred funds from its Primary Road Fund to its Local Road Fund, even though this transfer limits maintenance activity on the primary road system. These monies are used to fund WCRC's Local Road Program.

Each year, WCRC staff meets with township officials to discuss how a township might use money available to them through a local road matching program or a township revenue source to make desired improvements. WCRC is also available to assist any township interested in creating its own asset management plan for its local roads.

[Click here to visit WCRC's Township Information Web Page.](#)

Also, see Appendix B for the recent PASER Condition Map for Local Roads in Washtenaw County.

Fixing and Improving County Roads

Roads age and deteriorate just like any other asset. All roadways are damaged by water, freeze/thaw cycles, sunlight and commercial vehicle traffic. To offset natural deterioration and normal wear-and-tear on the road, WCRC must complete treatment projects that either protect and/or add service life to its pavements.

WCRC uses many types of repair treatments for its roads, each selected to balance costs, benefits and road life expectancy. Financial resources influence how much work can be accomplished across the network within the agency budget and what treatments and strategies can be afforded. A full discussion of WCRC's financial resources can be found in the *Financial Resources* section starting on page 34.

Types of Road Treatments

Selection of repair treatments for roads aims to balance costs, benefits and road life expectancy.

Reconstruction: Pavement reconstruction treats failing or failed pavements by completely removing the old pavement and base and constructing an entirely new road. Compared to the other treatments, reconstruction is the most expensive per mile and most disruptive to regular traffic patterns. Reconstructed pavement will subsequently require one or more of the maintenance treatments to maximize service life and performance. A reconstructed road lasts approximately 20 years and costs \$1,500,000 or more per mile for a two-lane roadway.

Pulverize and resurface/crush and shape: During this treatment, the existing pavement and base are pulverized and then the road surface is reshaped to correct imperfections in the road's crown and profile. The crushed material is compacted and paved with typically two courses of asphalt. This treatment is usually done on roads with severe structural distress. A pulverize and resurface treatment lasts approximately 15 years and costs approximately \$450,000 per mile for a two-lane roadway.

Full-depth concrete repair: A full-depth concrete and joint repair removes sections of damaged concrete pavement and replaces it with new concrete. It is usually performed on isolated deteriorated joint locations or entire slabs that are much further deteriorated than adjacent slabs. The purpose is to restore the riding surface, delay water infiltration, restore load transfer from one slab to the next and eliminate the need to perform costly temporary patching. This repair lasts approximately 10 – 15 years and costs vary depending on the magnitude of the repairs.

Mill and resurface: The top layer (wearing course) of the asphalt road is milled off and resurfaced. This treatment creates a new wearing surface for traffic and seals the pavement from water, debris and sunlight damage. A mill and resurfacing treatment lasts approximately 5 – 10 years and costs approximately \$250,000 per mile for a two-lane roadway.

Seal Coat: A seal coat is a two-part treatment that starts with liquid asphalt sprayed onto the old pavement surface followed by a single layer of small stone chips spread onto the wet liquid asphalt layer. The liquid asphalt seals the pavement from water and debris and holds the stone chips in place. Seal coat also helps to prevent further surface deterioration usually caused by oxidation. Seal coats are best applied to pavements that are not exhibiting problems with strength, and their purpose is to help preserve that strength. This treatment lasts approximately 3 – 5 years and costs approximately \$45,000 per mile when paired with a fog seal.

Fog sealing sprays a liquid asphalt coating onto the entire pavement surface to fill hairline cracks and prevent damage from sunlight. In 2020, WCRC began applying a fog seal on top of recently seal coated roads. This additional treatment helps to extend the life of the chip seal.

MDOT provides guidance regarding when a specific pavement may be a candidate for a particular treatment. Correlating with each PASER score are specific types of treatments best performed either to protect the pavement or to add strength back into the pavement. These identified PASER scores “trigger” the timing of projects appropriately to direct the right pavement fix at the right time, thereby providing the best chance for a successful project. The information provided in Figure 9 below is a guide for identifying potential projects; however, this table should not be the sole criteria for pavement treatment selection. Other information such as future development, traffic volume, utility projects and budget play a role in project selection. This table should not be a substitute for engineering judgement.

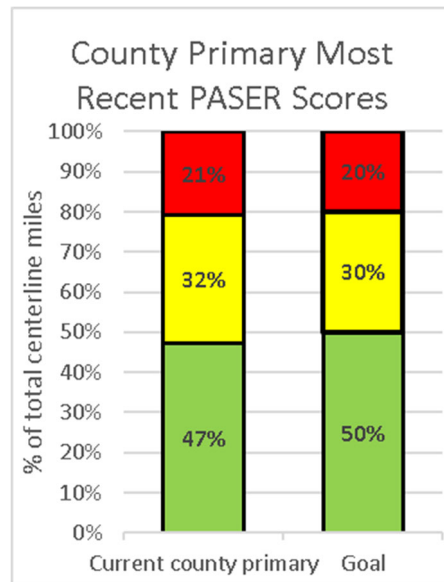
Figure 9: Expected service life extension for pavement types gained by fix type

Pavement Condition (PASER)	Possible Treatment	Estimated Cost per Mile for Two-Lane Road	Estimated Life Expectancy	PASER Reset Score (if Treatment is Completed)
Good (10-8 rating)	Crack sealing	\$10,000	Can last up to 3 years	No change
Fair (7-5 rating)	Seal coat	\$45,000	Can extend the life of a road by 3-5 years	8
	Mill and resurface	\$250,000	Can extend the life of a road for 5-7+ years (with proper maintenance)	9
Poor (4-1 rating)	Pulverize and resurface	\$450,000	Can extend the life of a road for 10-15+ years (with preventative maintenance)	9
	Reconstruct	\$1,500,000+	Can last up to 15 to 20 years (with proper maintenance)	10

Goals

It is important to set realistic network condition goals that efficiently use limited budget resources to build and maintain roads. The overall goal for WCRC's paved county primary road network is to have 80% of paved primary roads in good or fair condition by 2026. The baseline condition for this goal is illustrated in Figure 10.

Figure 10: WCRC's 2023 county primary road network condition



Planned Projects

WCRC plans construction projects several years in advance. For some of the more complicated projects, especially those involving federal funds, it can take WCRC's engineering staff years to work through design, permitting, potential rights-of-way acquisitions and other regulatory requirements for each project. Some of the regulatory agencies that are required to weigh-in on these larger projects include the Michigan Department of Environment, Great Lakes and Energy (EGLE) and Michigan State Historical Preservation Office (SHPO). Each agency's permitting process alone can take months to work through.

Due to limited resources, WCRC plans a "mix of fixes" each year. Many projects focus on preventative maintenance practices like chip seal, fog seal and mill/resurfacing. WCRC also works to pulverize/resurface and reconstruct several miles of road each year.

Per PA 499 of 2002 (later amended by PA 199 of 2007), primary road projects for the upcoming three years are required to be reported annually to the TAMC. Planned projects represent the best estimate of future activity; however, changes in design, funding and permitting may require WCRC to alter initial plans. Project planning information is used to predict the future condition of the road networks that WCRC maintains.

See Appendix C for a map showing the road improvement projects planned on paved primary roads in 2024 – 2026. See Appendix D for a list of road improvement projects planned on paved primary roads in 2024 – 2026.

If additional funding becomes available, WCRC also maintains a list of potential projects that currently are unfunded. See Appendix E for the latest unfunded paved primary road projects list.

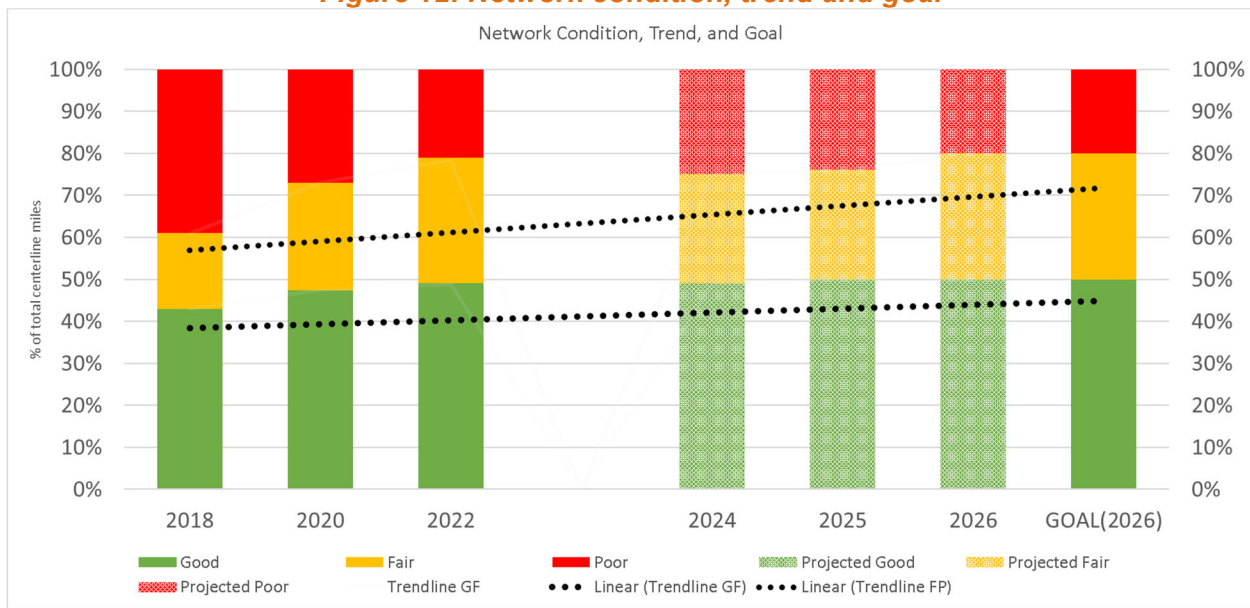
Modeled Trends and Analysis

Figure 11: Historic and planned improvement miles

Primary Road Network (<604.8 miles)		
Treatment Type	2021-2023 Total Miles Completed	2024-2026 Total Planned Miles
Crack seal	23.8 (47.8 Lane Miles)	TBD
Sealcoat (chip seal and fog seal)	234	130
Mill and resurface	57	78
Pulverize and resurface	22	19
Reconstruct	3	0.2
Total	339.8	227.07

Given the planned projects for the next three years, WCRC will be maintaining its goal of having 80% of the paved primary network in good or fair condition by 2026. The chart below displays the past three sets of PASER data along with the predicted PASER based on planned projects for 2024 – 2026.

Figure 12: Network condition, trend and goal



Bridges

Bridges are among the most important assets in any community along with other assets like roads, culverts, traffic signs, traffic signals and utilities that support and affect the road network. The cost of building and maintaining bridges, their importance to society, and the investment made by taxpayers all place a high level of responsibility on local agencies to plan, build and maintain the road and bridge network in an efficient and effective manner. This asset management plan is intended to report on how WCRC is meeting its obligations to maintain the bridges for which it is responsible.

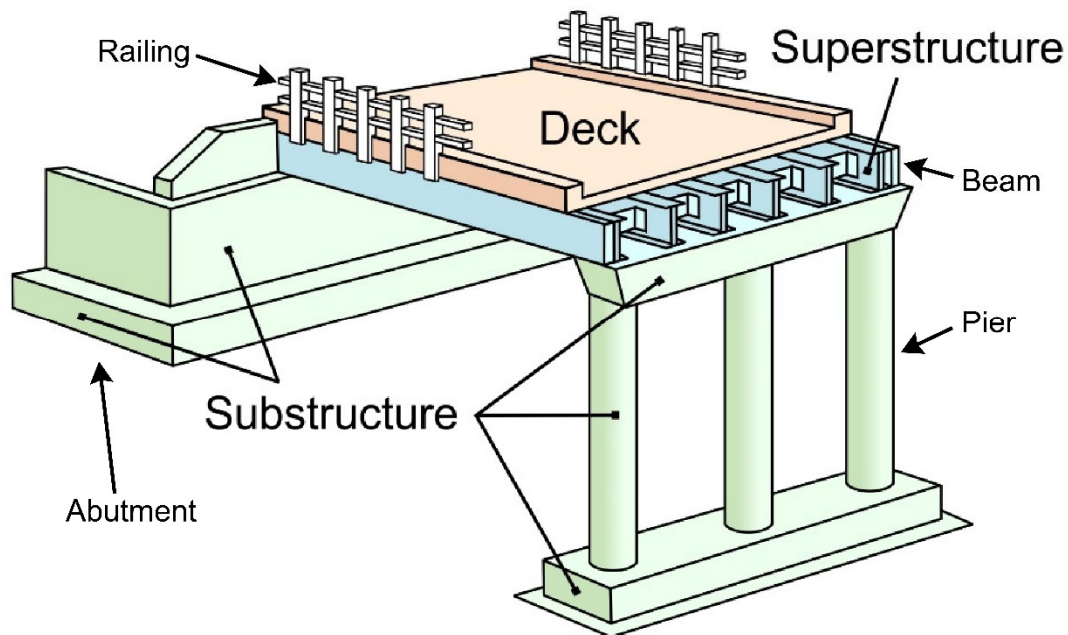
WCRC has 125 total bridges in its road and bridge network. See Appendix F for a map showing the locations of WCRC's bridges.

Bridge Types

Bridges are structures that span 20 feet or more. These bridges can extend across one or multiple spans. If culverts are placed side-by-side to form a span of 20 feet or more (for example, three 6-foot culverts with one-foot between each culvert), then this culvert system would be defined as a bridge.

Bridge types can be classified based on two features: type of superstructure or upon material.

Figure 13: Diagram of basic elements of a bridge



Beam/deck bridge: This is the most common bridge design. With this design, the bridge deck transfers vehicle loads to beams that, in turn, transfer the load to the piers or abutments.

**Figure 14: An example of a bridge with concrete beams
(Sharon Valley Road Bridge, over River Raisin (STR 10969), Sharon Township)**



Slab bridge: A slab bridge transfers the vehicle load directly to the abutments and, if necessary, piers without beams.

Truss bridge: Truss bridges consist of a support structure that is created when structural members are connected at joints to form interconnected triangles. Structural members may consist of steel tubes or angles connected at joints with gusset plates.

**Figure 15: An example of a truss bridge
(E. Delhi Road Bridge, over the Huron River (STR 11029), Scio Township)**



Pre-cast box or arch bridge: This type of structure utilizes prefabricated structural elements which are installed in segments over the watercourse. The pre-cast concrete box structures are manufactured in sections off-site and shipped to the job site where they are assembled. Similarly, the aluminum or steel arch structures are assembled on site utilizing manufactured sections. Once the structure is in place in the watercourse, backfill material is placed and the roadway is constructed.

***Figure 16: An example of a pre-cast concrete box bridge.
(Miller Road Bridge, over Honey Creek (STR 10981), Scio Township)***



Bridges are generally constructed from concrete, steel, pre-stressed concrete or timber. Some historical bridges or bridge components in Michigan may be constructed from stone or masonry.

Inventory and Condition

Bridges in Michigan are given a good, fair or poor rating based on the National Bridge Inspection Standards (NBIS) rating scale – the National Bridge Inventory (NBI), which was created by the Federal Highway Administration to evaluate a bridge’s deficiencies and to ensure the safety of road users. Elements of the bridge’s superstructure, deck and substructure receive a 9 if they are in excellent condition down to a 0 if they are in failed condition.

Figure 17: Summary of the NBI rating scale

NBI Rating	General Condition
7-9	Good/like new
5-6	Fair
3-4	Serious/poor
0-2	Failed/critical

NBI scores are grouped into TAMC definition categories of good (7-9), fair (5-6) and poor (0-4) categories. The current condition of WCRC’s bridge network based on the NBIS is 54 structures rated good, 43 structures rated fair and 27 structures rated poor (see Figure 18).

Figure 18: WCRC's bridges by type and condition

Bridge Type	Total Number of Bridges	Total Deck Area (sq. ft)	2023 Condition			Impact to Legal Load	
			Poor	Fair	Good	Posted	Closed
Aluminum box	2	1,780	0	0	2	0	0
Concrete arch deck	1	1,866	0	0	1	0	0
Concrete box	17	28,575	0	4	13	0	0
Concrete slab	2	1,937	0	1	1	0	0
Concrete tee beam	4	5,250	2	1	1	1	0
Concrete continuous slab	2	5,806	0	2	0	0	0
Prestressed concrete box beam/girders – multiple	41	87,044	13	15	13	6	0
Prestressed concrete box beam/girders – single spread	5	16,613	0	0	5	0	0
Prestressed concrete – multistringer	9	82,875	0	2	7	0	0
Steel box	14	16,281	6	7	1	3	0
Steel multistringer	9	22,242	3	6	0	7	0
Steel truss	2	4,469	0	2	0	2	0
Timber slab	15	14,864	3	8	4	1	0
Railroad bridges ⁴	2	n/a	n/a	n/a	n/a	n/a	n/a
Total⁵	125 bridges	274,738sq. ft					
Total⁶			27	48	48	20	0
Percentage			22%	39%	39%	16%	0%

⁴ WCRC inspects these railroad bridges however they are owned and maintained by the railroad.

⁵ WCRC inspects these railroad bridges however they are owned and maintained by the railroad.

⁶ Total does not include railroad bridges. See note above.

Bridges are designed to carry legal loads in terms of vehicles and traffic. Due to a decline in condition, a bridge may be “posted” with a restriction for what would be considered safe loads passing over the bridge. WCRC has 20 structures that are posted for load restriction (Figure 18). Designating a bridge as “posted” has no influence on its condition rating. A “closed” bridge is one that is closed to all traffic. Closing a bridge is contingent upon its ability to carry a set minimum live load. WCRC has one structure that is closed.

To see exact locations of these load restricted structures, visit wcroads.org for WCRC’s [Truck Operator’s Map](#).

Fixing and Improving County Bridges

Types of Bridge Treatments

Selection of repair treatments for bridges aims to balance costs, benefits and bridge life expectancy. Each of the following treatments and strategies—reconstruction, structural improvements, capital preventative maintenance and others used by WCRC and are designed to maximize the service life of the bridge.

Replacement: Replacement work is typically performed when a bridge is in poor condition (NBI rating of 4 or less) and will improve the bridge to good condition (NBI rating of 7 or more). The Local Bridge Program, a part of MDOT’s Local Agency Program, defines bridge replacement as full replacement, which removes the entire bridge (superstructure, deck and substructure) before re-building a bridge at the same location. The decision to perform a total replacement over rehabilitation (see below) is made based on a life-cycle cost analysis. Generally, replacement is selected if rehabilitation costs more than two-thirds of the cost of replacement. Replacement is generally the most expensive of the treatment options.

Rehabilitation: Rehabilitation involves repairs that improve the existing condition and extend the service life of the structure and the riding surface. Most often, rehabilitation options are associated with bridges that have degraded beyond what can be fixed with preventative maintenance. Rehabilitation is typically performed on poor-rated elements (NBI rating of 4 or less) to improve them to fair or good condition (NBI rating of 5 or more). Rehabilitation can include superstructure replacement (removal and replacement of beams and deck) or deck replacement. While typically more expensive than preventative maintenance, rehabilitation treatments may be more cost-effective than replacing the entire structure.

Preventative Maintenance: Preventative maintenance work is typically done on bridges rated fair (NBI rating of 5 or 6) in order to slow the rate of deterioration and keep the bridge in fair or good condition. Treatments range from concrete deck repairs, joint repairs, epoxy overlays, painting and repaving of the road approaches leading to the structure.

Goals

The goal of WCRC's asset management program is the preservation and safety of its bridge network; it also aims to extend the period of time that bridges remain in good and fair condition, thereby increasing their useful service life.

WCRC's goal is to continue to have 78% of its bridges in good or fair condition in 2023.

Planned Projects

WCRC received more than \$3 million in total bridge funding from the Michigan Local Bridge Program in 2021 for specific bridge projects. Below is a summary of planned bridge investments for the fiscal years 2024, 2025 and 2026.

Figure 19: Planned bridge projects

Strategy	2024	2025	2026
Replacement of Existing Bridges			
Stony Creek Rd over Paint Creek	\$1,400,000		
Sharon Valley Rd over River Raisin		\$4,000,000	
Main St over Horseshoe Lake Outlet			\$1,800,000
Rehabilitation of Existing Bridges			
Cherry Hill Rd over Fleming Creek			\$945,000
Preventative Maintenance			
Locations TBD	1,400,000	\$4,000,000	\$2,745,000
Total Planned Bridge Investment	\$1,400,000	\$4,000,000	\$2,745,000

In addition, WCRC has applied to the Michigan Local Bridge Program for funding on the following bridges for fiscal year 2024.

Figure 20: Bridge project applications submitted for potential funding in 2024

Structure Number	Location	Scope	Estimated Cost of Project
11002	Stony Creek Road over Paint Creek, Ypsilanti Township	Replacement	\$1,239,000
10972	Tyler Road over Willow Run, Ypsilanti Township	Removal	\$654,000
10987	Dexter-Chelsea Road over Letts Creek, Lima Township	Superstructure Replacement	\$859,000
10990	Sharon Hollow Road over Raisin River, Sharon Township	Preventative Maintenance	\$226,000
11003	Whittaker Road over Stony Creek, Augusta Township	Preventative Maintenance	\$286,000
10983	Plymouth Road over Fleming Creek, Superior Township	Preventative Maintenance	\$50,000
11004	Whittaker Road over Paint Creek, Augusta Township	Preventative Maintenance	\$38,000
11005	Whittaker Road over Paint Creek, Ypsilanti Township	Preventative Maintenance	\$44,000
11038	Sharon Valley over River Raisin, Sharon Township	Replacement	\$1,307,000
		Total	\$4,703,000

If the projects outlined in Figure 20 are not funded for fiscal year 2024, they will be added to the Unfunded Bridge List, see Appendix G for the full list of unfunded bridge projects.

Bridge Goal Analysis

Given these planned projects, WCRC anticipates achieving the stated goal of maintaining the overall current condition of its bridges (78% in good/fair condition) through 2023. Staff will continue to monitor bridge conditions through the bridge inspection program.

Culverts

Culverts are structures that lie underneath roads, enabling water to flow from one side of the roadway to the other. The important distinguishing factor between a culvert and a bridge is the size. Culverts are considered any crossing with a span less than 20 feet. While similar in function to storm sewers, culverts differ from storm sewers in that culverts are open on both ends, are constructed as straight-line conduits, and lack intermediate drainage structures like manholes and catch basins. Culverts are critical to the service life of a road because of the important role they play in keeping the pavement layers well drained and free from the forces of water building up on one or both sides of the roadway.

Culvert Types

In Washtenaw County, the material type used for constructing culverts ranges from corrugated steel, concrete, plastic, aluminum and masonry/tile. The shapes of the culverts are circular, pipe arch, arch, rectangular, horizontal ellipse or box.

Inventory of Assets

WCRC continues to work to collect and organize inventory and condition data of its culvert assets. To date WCRC has inventoried a total of 2,809 culverts. In general, this information includes culvert location, size and length but due to a lack of the necessary resources, WCRC does not have data on the condition of most of these culverts.

Since 2015, WCRC performs regular annual inspections on culverts that are between 5 feet and 20 feet in diameter or span. The inspection of each of these culverts is done on a four-year cycle. Culverts that are in poor condition are inspected more frequently.

So far, WCRC has evaluated the condition of 342 culverts that are between 5 feet and 20 feet in diameter or span. Of these structures, 58 culverts are considered good, 190 culverts are considered fair, 94 culverts are considered poor and one culvert where the road is closed based on the poor condition.

In addition, WCRC has developed a Storm Water Asset Management Plan to help better manage all storm water infrastructure under WCRC's jurisdiction. Contact WCRC for more information on this plan.

Planned Projects

WCRC's practice is to replace or repair culvert assets concurrent with projects affecting road segments carried by the particular culverts. WCRC also includes culvert assets in road projects affecting road segments carried by the particular culverts.

Culverts on primary roads found to be in poor condition are replaced as funding allows and subject to any permitting requirements. In addition, as part of the Local Road Program, WCRC has committed to covering 50% of the cost to replace local road culverts that require permits from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and/or the Washtenaw County Water Resources Commissioner's Office. These culverts are usually larger and more expensive to fix or replace. This funding source is applied on a case-by-case basis in partnership with interested townships or other financial partners.

See Appendix H for a list of unfunded primary road culvert projects.

Traffic Signals

Traffic at intersections can be managed in a number of ways from road design to signage to some type of electronic control. An electronically controlled intersection is one with any power-operated device by which traffic is warned or directed to take some specific action, examples include:

- Stop-and-go traffic signal utilizing green, yellow and red indications
- Overhead flashing beacon warning motorists of an intersection ahead
- Multiway stop-controlled intersection
- Rectangular rapid flashing beacon (RRFB) for mid-block pedestrian crossings

This asset management plan only addresses stop-and-go traffic signals as a functioning unit and does not consider other electronic traffic control devices.

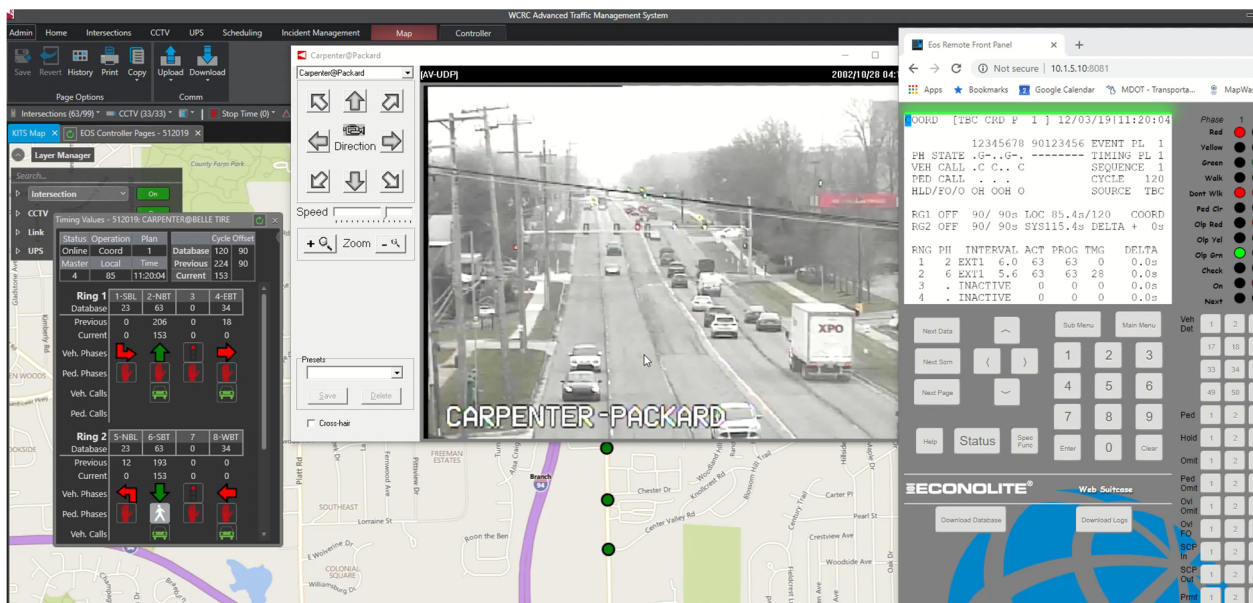
Inventory of Assets

WCRC owns 113 stop-and-go traffic signals and maintains on behalf of MDOT an additional 66 stop-and-go traffic signals.

See Appendix I for a map showing WCRC's stop-and-go traffic signal locations.

In addition to these electronic controls, WCRC also manages a complex Advanced Traffic Management System (ATMS) that includes a point-to-point wireless communication network. This system interconnects and communicates on a second-by-second basis with WCRC's signalized intersections. This allows staff to manipulate signal timings, store and archive signal timing data, and create and monitor vehicle progression across the system.

Figure 21: Screenshot of ATMS



Planned Projects

WCRC engineers review intersections to see if a traffic signal is necessary or warranted based on state-wide standards. WCRC adheres to regular maintenance and servicing policies outlined in the *Michigan Manual of Uniform Traffic Control Devices*. If some type of traffic signal is warranted, a funding source must be identified, which can be a challenge, prior to construction of any improvements.

See Appendix D for a list of planned primary projects for 2024-2026 (includes traffic signal projects).

Financial Resources

Every road agency in Michigan is fiscally constrained due to decades of underinvestment at the local, state and federal levels. WCRC strives to apply a balanced approach when it comes to prioritizing needs within these budget constraints. Each year, the WCRC budget strikes a balance between investing in road improvement projects, maintenance, equipment, facilities and workforce investments, including long-term employee commitments.

WCRC will provide an overview of its general revenue sources currently devoted to transportation infrastructure investments. This financial information is not intended to be a full financial disclosure or a formal report. Full details of WCRC's financial status can be found on its website at wcroads.org/about/transparency-budget/.

Funding Sources

WCRC receives funding from the following sources:

- **State funds** – WCRC's principal source of transportation funding is received from the Michigan Transportation Fund (MTF). This fund is supported by license/vehicle registration fees and the state's per-gallon fuel taxes. In 2015, the Michigan Legislature voted to increase the state fuel tax and license/vehicle registration fees⁷, the first increase went into effect in 2017. The state fuel tax is a flat rate applied per gallon of fuel purchased. This means that as the price of fuel increases, revenue to MTF does not necessarily increase. In 2015, the state fuel tax was tied to inflation for the first time in its history, inflationary adjustment has been in effect since January 2022⁸.

MTF revenue is distributed to state and local governmental units based on a legislated formula through Act 51, which includes factors such as population, miles of certified roads and vehicle registration fees for vehicles registered in the agency's jurisdiction. County road commissions collectively receive approximately 39% of MTF revenue.

- **Federal funds** – WCRC also receives funding for projects from the federal fuel tax⁹. The federal fuel tax is also a flat rate applied per gallon of fuel purchased. This money is distributed to road projects through regional planning organizations and administered by WCRC through the Michigan Department of Transportation. Specifically, WCRC works through the Washtenaw Area Transportation Study (WATS) and ultimately the Southeast Michigan Council of Governments (SEMCOG) to program road projects that receive funding for federal-aid eligible roads.
- **Federal and state grants for individual projects** – These are typically competitive funding applications that are targeted at a specific project to accomplish a specific

⁷ See the [Michigan Vehicle Code \(Act 300 of 1949\)](#) for more information regarding Michigan's registration taxes on vehicles.

⁸ See the [Motor Fuel Tax Act \(Act 403 of 2000\)](#) for more information regarding Michigan's state fuel taxing structure.

⁹ See the [U.S. Energy Information Administration's Frequently Asked Questions](#) to learn more about the Federal Fuel Tax.

purpose. These may include safety enhancement projects, economic development projects or other targeted funding. Examples of grant programs include Local Bridge Program; Congestion, Mitigation, Air Quality (CMAQ); High Risk Rural Roadways Program (HRRR); Highway Safety Improvement Program (HSIP); Carbon Reduction Program, etc.

- **Local road program** – Under current state law, any improvements to a local road (for example resurfacing) must have at least 50% of its funding come from a source other than the road commission, often the township. Each year, WCRC partners with the county's 20 townships to invest in improvements on the local road system. WCRC administers a three-part Local Road Program to help with this effort.

In Washtenaw County, townships generate revenue to invest in roads in a number of ways, including township-wide road millages, bonding, investing general funds collected from property taxes, township-wide Special Assessment Districts, etc. [Click here to read the most recent Local Road Program Packets created for each township.](#)

- **County-wide road millage** – In 2016, Washtenaw County voters passed the first County-Wide Roads and Non-Motorized Millage. This four-year, 0.5 mill tax was renewed overwhelmingly by voters in 2020, and 2024. The property tax is levied each winter and those revenues are invested in specific road and non-motorized projects the very next year. This four-year millage has a project plan for 2025-2028 [Click here to read more about this millage.](#)
- **Private contributions to construction projects for specific improvements** – This category includes funding received to mitigate the impact of commercial or residential developments as a condition of permit to access the public road system for the construction of a specific development project.
- **Interest** – Interest from invested funds.
- **Permit fees** – Generally, permit fees cover the cost of a permit application review.
- **Other** – Other revenues can be gained through salvage sales, property rentals, land and building sales, sundry refunds, equipment disposition, private sources and financing.

Risk of Failure Analysis

Transportation infrastructure is designed to be resilient. The system of interconnecting roads and bridges maintained by WCRC provides road users with multiple alternate options in the event of an unplanned disruption of one part of the system. There are, however, key links in the transportation system that may cause significant inconvenience to users if they are unexpectedly closed to traffic.

Key transportation links include:

- **National Highway System (NHS) Routes:** NHS consists of interconnected urban and rural principal arterials and highways which serve major population centers, airports, public transportation facilities, other intermodal facilities and other major travel destinations. NHS routes under WCRC's jurisdiction include Ann Arbor-Saline Road, Baker Road, Carpenter Road, Ellsworth Road, Jackson Road, Michigan Avenue, Packard Road, Plymouth Road and Wiard Road.
- **Geographic divides:** Areas where a geographic feature (river, lake, hilly terrain or limited access road) limits crossing points of the feature; bridge failures, in particular, can create loss of access to portions of Washtenaw County. Bridges on primary roads that cross the following water courses are examples of these critical routes; Huron River, Saline River, River Raisin and Mill Creek.
- **Emergency alternate routes for high-volume roads and bridges:** Roads and bridges that are routinely used as alternate routes for high-volume assets and are included in an emergency response plan. Examples include all the NHS routes and other primary roads adjacent to freeways.
- **Hospital access:** Roads and bridges that serve to access the University of Michigan medical centers, Trinity Health Ann Arbor Hospital and Trinity Health Chelsea Hospital Chelsea.
- **Main access to key commercial districts and universities:** Areas with a large concentration of businesses or universities will be significantly impacted if a road is unavailable.
- **Scour critical bridges:** Bridges that are considered "scour critical" pose a risk to WCRC's road and bridge network. Scour is the depletion of sediment from around the foundation elements of a bridge commonly caused by fast-moving water. According to MDOT's *Michigan Structure Inventory and Appraisal Coding Guide*, a scour critical bridge is one that has unstable abutments and/or piers due to observed or potential (based on an evaluation study) scour. Bridges receiving a scour rating of 3 or less are considered scour critical. WCRC has 39 scour critical bridges, which are listed in Figure 22.

Figure 22: Bridges that are considered scour critical

Structure Number	Location	Structure Number	Location
10961	WILLOW ROAD OVER PAINT CREEK, AUGUSTA TWP	11040	WALDO RD OVER MILL CREEK, SHARON TWP
10968	WILLIS ROAD OVER PAINT CREEK, AUGUSTA TWP	11044	SHERIDAN ROAD OVER IRON CREEK, BRIDGEWATER TWP
10970	TEXTILE ROAD OVER PAINT CREEK, YPSILANTI TWP	11046	GRASS RD OVER BAUERDRAIN, SALINE TWP
10976	GEDDES ROAD OVER FLEMING CREEK, ANN ARBOR TWP	11047	MOHART OVER NORTH MACON CREEK, SALINE TWP
10978	JACKSON AVE OVER MILL CREEK, LIMA TWP	11048	HACK RD OVER MACON CREEK, SALINE TWP
10979	JACKSON AVE OVER MILL CREEK, LIMA TWP	11053	LISS ROAD OVER PAINT CREEK, AUGUSTA TWP
10982	PLYMOUTH ROAD OVER FLEMMING CREEK, SUPERIOR TWP	11054	ARKONA ROAD OVER SUGARCREEK, AUGUSTA TWP
10991	MCCOLLUM ROAD OVER SALINE RIVER, BRIDGEWATER TWP	11055	ARKONA RD OVER STONYCREEK, AUGUSTA TWP
10998	ZEEB ROAD OVER HURON RIVER, SCI0 TWP	11056	FULLER ROAD OVER SUGARCREEK, AUGUSTA TWP
10999	MAIN ST-WHITMORE OVER HORSESHOE LAKE OUTLET, NORTHFIELD TWP	11058	ROSBOLT RD OVER PAINT CREEK, AUGUSTA TWP
11002	STONY CREEK ROAD OVER PAINT CREEK, YPSILANTI TWP	11059	JUDD ROAD (EAST) OVER PAINT CREEK, AUGUSTA TWP
11013	SAGER RD OVER MILL CREEK, LIMA TWP	11060	JUDD ROAD (WEST) OVER PAINT CREEK, AUGUSTA TWP
11015	JERUSALEM ROAD OVER MILL CREEK, LIMA TWP	11063	HITCHINGHAM OVER SUGAR CREEK, AUGUSTA TWP
11016	JERUSALEM RD OVER MILL CREEK, LIMA TWP	12850	WILLOW ROAD OVER SUGAR CREEK, AUGUSTA TWP
11020	GUENTHER RD OVER MILL CREEK, LIMA TWP	12975	POLO FIELDS DRIVE OVER U OF M LAKE DRAIN, SCI0 TWP
11022	DANCER ROAD OVER MILL CREEK, LIMA TWP	12976	BIRKDALE DRIVE OVER U OF M LAKE DRAIN, SCI0 TWP
11024	SEITZ DRIVE OVER LUICK CREEK, LIMA TWP	12977	KILKENNY COURT OVER U OF M LAKE DRAIN, SCI0 TWP
11030	MAPLE ROAD OVER HURON RIVER, ANN ARBOR	13195	DORNOCH DRIVE OVER U OF M LAKE DRAIN, SCI0 TWP
11031	CHALMERS RD OVER PITTSFIELD ANN ARBOR DRN, ANN ARBOR	11040	WALDO RD OVER MILL CREEK, SHARON TWP
11037	DELL ROAD OVER SALINE RIVER, LODI TWP	11044	SHERIDAN ROAD OVER IRON CREEK, BRIDGEWATER TWP
11038	SHARON VALLEY RD OVER RAISIN RIVER, SHARON TWP	11046	GRASS RD OVER BAUERDRAIN, SALINE TWP

In addition to scour critical bridges, WCRC has posted or closed bridges and culverts that are critical to accessing specific areas or individual properties within its jurisdiction. These bridges and culverts are listed in Figure 22 above and shown on [WCRC's Truck Operators Map](#) located at wccroads.org.

Coordination with Other Entities

An asset management plan provides a significant value for infrastructure owners because it serves as a platform to engage other infrastructure owners using the same shared right-of-way space.

WCRC communicates with both public and private infrastructure owners to coordinate work in the following ways:

- **Community Engagement Policy:** This policy and a staff procedure were created in 2018 to clearly outline which community engagement practices should take place based on project scope and potential impact. See Appendix J for the Community Engagement Policy and Procedure.
- **Township Meetings:** WCRC staff meet throughout the year with township officials to discuss potential projects, current construction and resident concerns. In addition, WCRC staff coordinate with multiple townships and public agencies that maintain drinking water, sanitary and storm sewer assets.
- **Utility Coordination Meetings:** WCRC staff also work closely with franchise utilities within the road rights-of-way. Staff hold utility coordination meetings throughout the year with companies that include telecommunications, gas, electric and pipeline companies to discuss planned road and bridge projects.

Proof of Acceptance

PUBLIC ACT 325

CERTIFICATION OF TRANSPORTATION ASSET MANAGEMENT PLAN

Certification Year: 2024

Local Road-owning Agency Name: Washtenaw County Road Commission

Beginning October 2021 and on a three-year cycle thereafter, certification must be made for compliance to Public Act 325. A local road-owning agency with 100 certified miles or more must certify that it has developed an asset management plan for the road, bridge, culvert, and traffic signal assets. Signing this form certifies that the hitherto referred agency meets with minimum requirements as outlined by Public Act 325 and agency-defined goals and objectives.

This form must be signed by the chairperson of the local road-owning agency or the county executive and chief financial officer of the local road-owning agency.

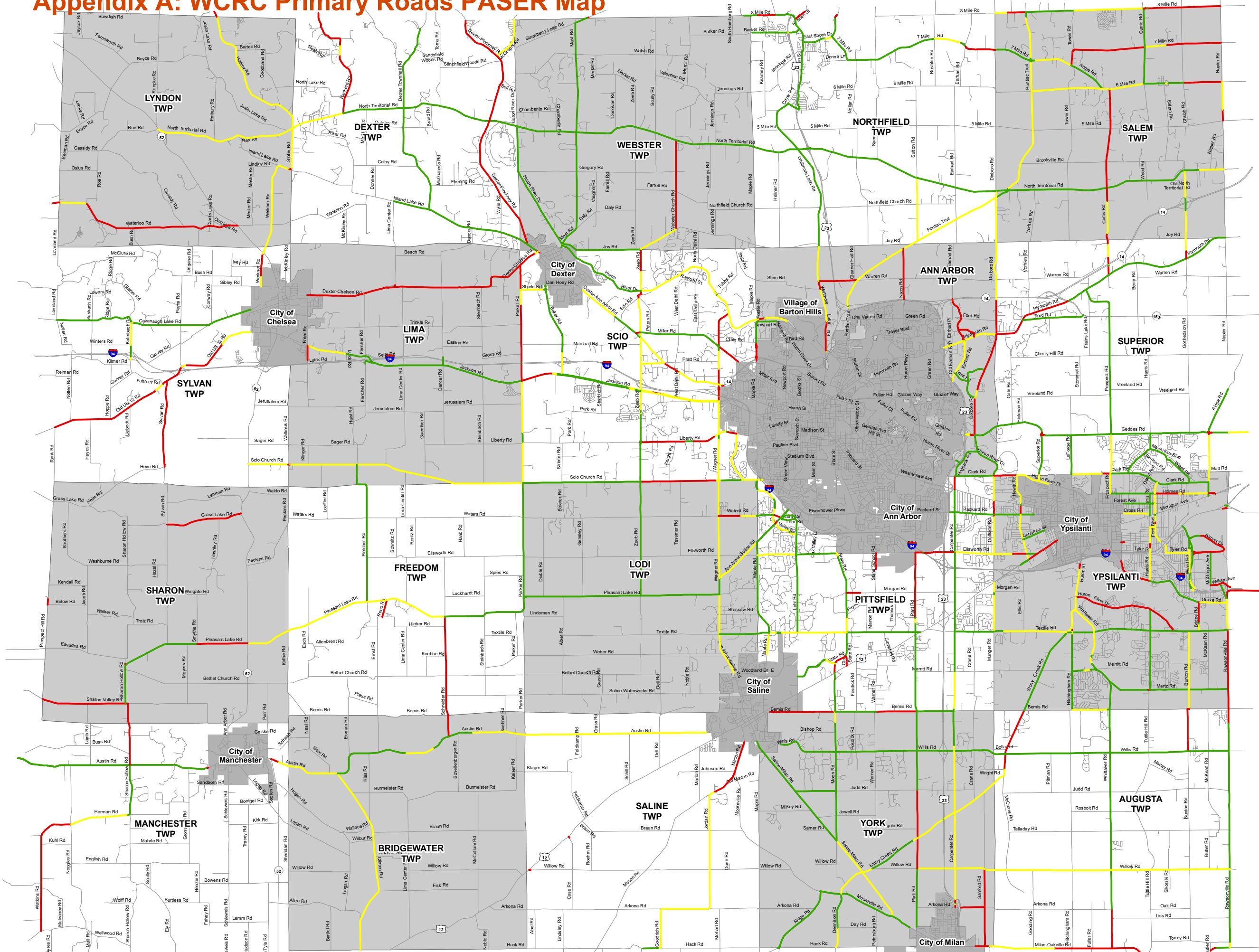
Signature		Signature	
Printed Name: Barbara Ryan Fuller		Printed Name: Matthew MacDonell, P.E.	
Title:	Board Chair	Title:	Managing Director
Date:		Date:	

Due every three years based on agency submission schedule

Submittal Date: _____

See Appendix K for the board resolution.

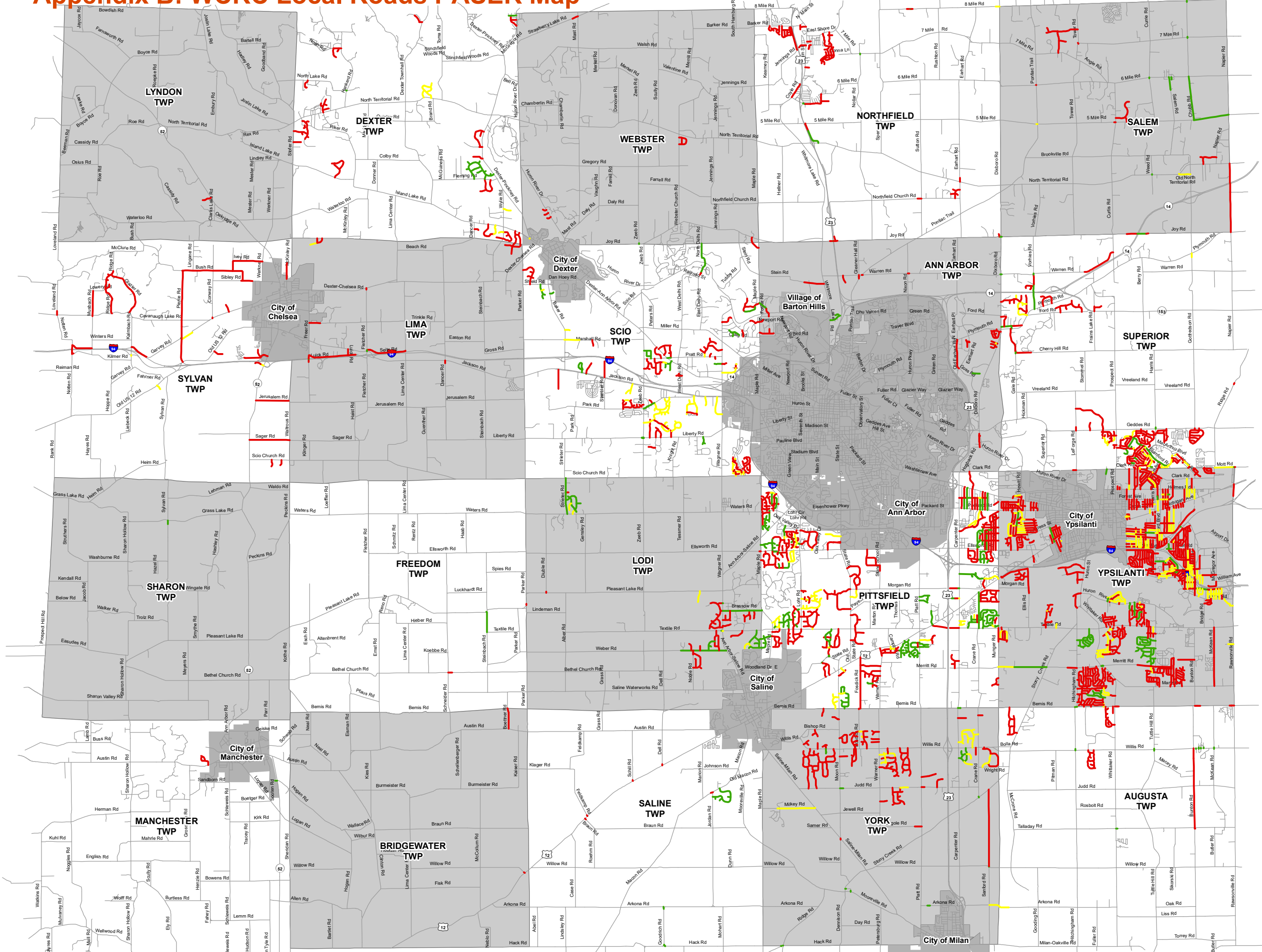
Appendix A: WCRC Primary Roads PASER Map



Current Pavement Surface Evaluations and Ratings (PASER)
 County Primary

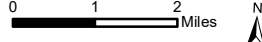
- Good - Routine Maintenance (8-10)
- Fair - Capital Preventative Maintenance (5-7)
- Poor - Structural Improvement (1-4)

Appendix B: WCRC Local Roads PASER Map



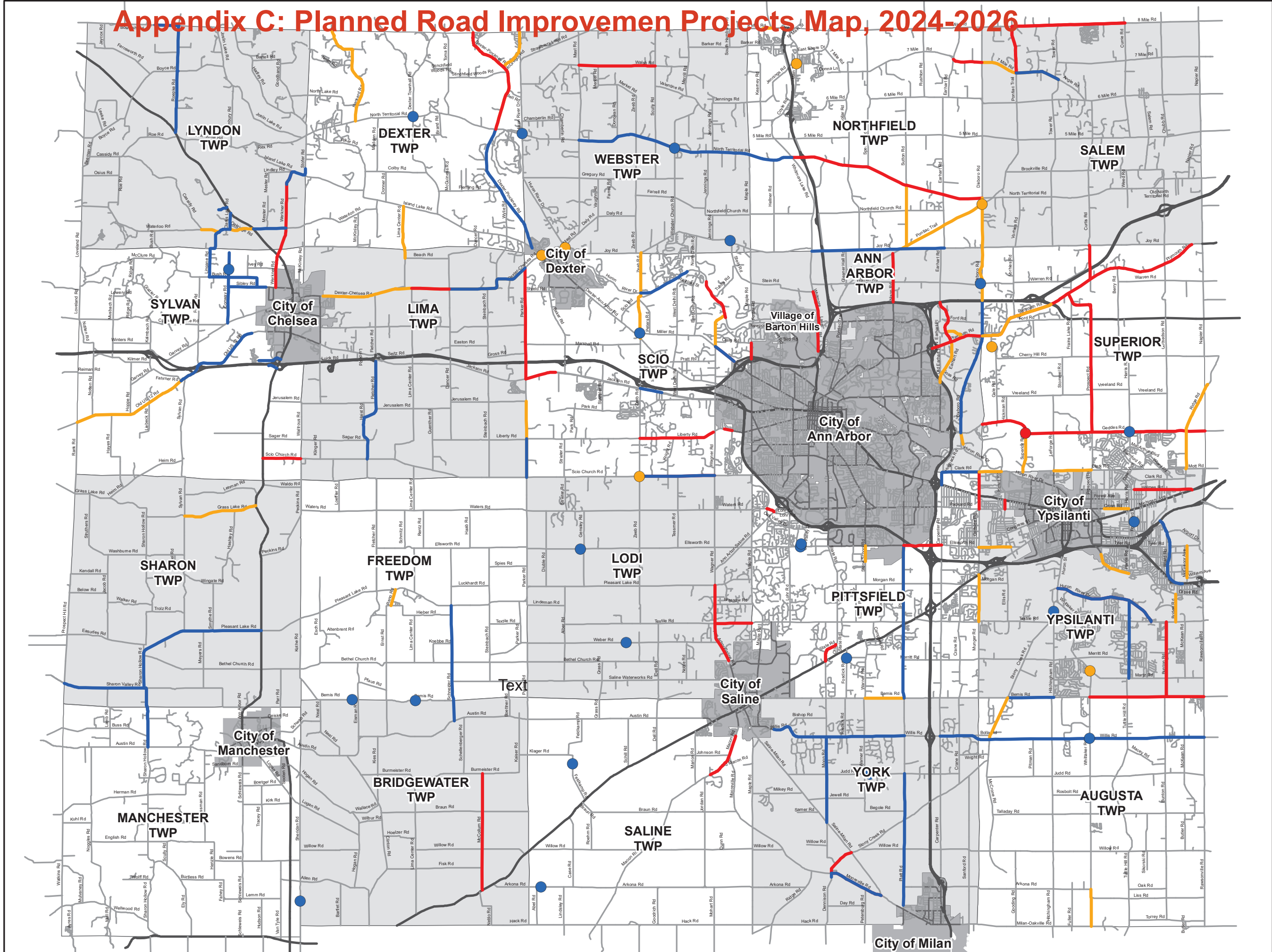
Current Pavement Surface Evaluations and Ratings (PASER)
 County Primary

- Good - Routine Maintenance (8-10)
- Fair - Capital Preventative Maintenance (5-7)
- Poor - Structural Improvement (1-4)



Date: April, 2023

Appendix C: Planned Road Improvement Projects Map, 2024-2026



2024 — 2025 — 2026 —

Appendix D: List of Planned Road Projects on Primary Roads, 2024-2026

Primary Road Projects				Federal/State Funded Construction (000's)	Others Funded Construction (000's)	WCRC Funded Construction (000's)	Total Cost (000's)
Project Location	Township	Type of Project	Status				
2024 Road Projects							
7 Mile Rd between Pontiac Trl and Angle Rd	Salem	Pulverize & Pave	Const.		\$ 367	\$ 207	\$ 574
Clark Rd between Hogback Rd and Huron River Dr	Ann Arbor & Pittsfield	Sealcoat	Const.		\$ 23	\$ 50	\$ 73
County-Wide	County-Wide	Crackseal	Const.			\$ 205	\$ 205
Dennison Rd Mooreville Rd - 500 FT south	York	Sealcoat	Const.			\$ 8	\$ 8
Dexter-Chelsea Rd between Dancer Rd and Parker Rd	Lima	Resurfacing	Const.	\$ 493		\$ 20	\$ 513
Dexter-Pinkney Rd between Webster Twp Line and County Line	Dexter	Sealcoat	Const.		\$ 138	\$ 104	\$ 242
Dexter-Pinkney Rd between Island Lk Rd and Dexter Twp Line	Webster	Sealcoat	Const.		\$ 16	\$ 18	\$ 34
Dixboro Rd between Geddes Rd and Plymouth Rd	Ann Arbor	Sealcoat	Const.		\$ 61	\$ 61	\$ 122
Dixboro Rd between Plymouth Rd and M-14	Ann Arbor & Superior	Pulverize & Pave	Const.		\$ 315	\$ 201	\$ 516
Hogback Rd between M-17 and Clark Rd	Pittsfield	Pulverize & Pave	Const.		\$ 120	\$ 244	\$ 364
Huron River Dr between Huron Rd and Textile Rd	Ypsilanti	Resurfacing	Const.		\$ 605	\$ 599	\$ 1,204
Jackson Rd between Baker Rd and Wagner Rd	Scio	Conc Pavt & Joint Repairs	Const.		\$ 900	\$ 640	\$ 1,540
Moon Rd between Saline-Milan Rd and Willis Rd	York	Sealcoat	Const.			\$ 99	\$ 99
Mooreville Rd between Stony Creek Rd to Saline-Milan Rd	York	Sealcoat	Const.			\$ 61	\$ 61
Miller Rd at Zeeb Rd	Scio	Intersection Improvement - Roundabout	Const.	\$ 630		\$ 845	\$ 1,475
Miller Rd between Wagner Rd and M-14	Scio	Resurfacing	Const.		\$ 193	\$ 51	\$ 244
N. Territorial Rd at Dexter Town Hall Rd	Dexter	Intersection Improvement - Hill Cut	Const.	\$ 1,500		\$ 610	\$ 2,110
N. Territorial Rd between Mast Rd and Webster Church Rd	Webster	Intersection & Safety	Const.	\$ 587		\$ 1,177	\$ 1,764
N. Territorial Rd between Webster Church Rd and Whitmore Lk Rd	Webster & Northfield	Resurfacing	Const.		\$ 595	\$ 241	\$ 836
Parker Rd between Scio Church Rd and Liberty Rd	Scio & Lima	Pulverize & Pave	Const.		\$ 459	\$ 17	\$ 476
Platt Rd between Bemis Rd to US-12	Pittsfield	Sealcoat	Const.		\$ 60	\$ 59	\$ 119
Platt Rd between Willow Rd and Judd Rd	York	Resurfacing	Const.		\$ 276	\$ 276	\$ 552
Platt Rd between US-12 and Ellsworth Rd	Pittsfield	Resurfacing	Const.		\$ 638	\$ 20	\$ 658
Platt Road between City of Milan and Willow Rd	York	Sealcoat	Const.			\$ 65	\$ 65
Pleasant Lake Rd between Sharon Hollow Rd and M-52	Sharon	Sealcoat	Const.		\$ 74	\$ 56	\$ 130
Schneider Rd between Austin Rd and Pleasant Lk Rd	Bridgewater & Freedom	Resurfacing	Const.		\$ 71	\$ 716	\$ 787
Scio Church Rd between Zeeb Rd and Wagner Rd	Lodi & Scio	Resurfacing	Const.		\$ 358	\$ 236	\$ 594
Sharon Hollow Rd between Austin Rd and Sharon Valley Rd	Manchester & Sharon	Resurfacing	Const.		\$ 237	\$ 341	\$ 578
Sharon Hollow Rd between Township Line and Pleasant Lake Rd	Sharon	Sealcoat	Const.			\$ 77	\$ 77
Sharon Valley Rd between County Line and Sharon Hollow Rd	Sharon	Sealcoat	Const.			\$ 93	\$ 93
Sharon Hollow Rd between Austin Rd and Sharon Township Line	Manchester	Sealcoat	Const.			\$ 45	\$ 45
Tuttle Hill Rd between Martz Rd and Huron River Dr	Ypsilanti	Sealcoat	Const.		\$ 48	\$ 88	\$ 136
Waterloo Rd between Clark Lk Rd and Lingane Rd	Lyndon	Pulverize & Pave	Const.		\$ 88	\$ -	\$ 88
Whittaker Rd at Willis Rd	Augusta	Intersection Improvement - Roundabout	Const.	\$ 1,200		\$ 345	\$ 1,545
Wiard Rd between I-94 and US-12	Ypsilanti	Sealcoat	Const.		\$ 111	\$ 59	\$ 170
Primary Road Pavement Total				\$ 4,410	\$ 5,753	\$ 7,934	\$ 18,097

Appendix D: List of Planned Road Projects on Primary Roads, 2024-2026

				Federal/State Funded Construction (000's)	Others Funded Construction (000's)	WCRC Funded Construction (000's)	Total Cost (000's)
Primary Road Projects							
2024 Gravel Road Projects							
County-Wide	County-Wide	Limestone/Gravel Resurfacing	Const.			\$ 100	\$ 100
Fletcher Rd between Scio Church Rd and I-94	Lima	Limestone/Gravel Resurfacing	Const.		\$ 162	\$ 193	\$ 355
Waterloo Rd between M-52 and Werkner Rd	Lyndon	Limestone and Drainage	Const.		\$ 50	\$ 71	\$ 121
Primary Road Limestone Total				\$ -	\$ 212	\$ 364	\$ 576
2024 Bridge & Culvert Projects							
Primary & Local Rd CB Cleaning	County-wide	Maintenance	Const.			\$ 200	\$ 200
Primary & Local Rd CB Repair	County-wide	Rehabilitation	Const.			\$ 200	\$ 200
Stony Creek Rd over Paint Creek	Ypsilanti	Bridge Replacement	Const.	\$ 1,145		\$ 200	\$ 1,345
Tyler Rd Bridge	Ypsilanti	Rehabilitation	Const.			\$ 150	\$ 150
Primary Road Bridge & Culvert Total				\$ 1,145		\$ 750	\$ 1,895
2024 Traffic & Safety Projects							
CMAQ A2-Saline Rd, Maple Rd, Ellsworth Rd, & Textile Rd	Pittsfield & City of Saline	Traffic Signal	Const.	\$ 1,263	\$ 60	\$ 420	\$ 1,743
CMAQ Plymouth Rd Signals Intercon btw Old Earhart Rd and M-153	Ann Arbor & Superior	Traffic Signal	Const.	\$ 535			\$ 535
County-wide Traffic Signal Interconnect System Enhancement	County-wide	Traffic Signal	Const.	\$ 1,350			\$ 1,350
County-wide	County-wide	Forestry	Const.			\$ 200	\$ 200
County-wide	County-wide	Guardrail Program	Const.			\$ 160	\$ 160
County-wide Pavement Marking Program	County-wide	Pavement Marking Program	Const.			\$ 425	\$ 425
Ellsworth Rd at Oak Valley Dr	Pittsfield	Traffic Signal	Const.		\$ 310		\$ 310
Geddes Rd at Harris Rd	Superior	Traffic Signal	Const.			\$ 240	\$ 240
Huron Rd @ Brinker Way	Ypsilanti	Intersection	Const.		\$ 120		\$ 120
Safety - Old 12, Werkner & Willis	Lyndon, Sylvan, York & Augusta	Safety	Const.	\$ 1,071		\$ 150	\$ 1,221
Primary Road Traffic & Safety Total				\$ 4,219	\$ 490	\$ 1,595	\$ 6,304
2024 Non-Motorized Projects							
County-wide	County-wide	Non-motorized improvements	Const.			\$ 260	\$ 260
Ford Blvd at Russell St	Ypsilanti	Traffic Signal	Const.			\$ 285	\$ 285
Geddes Rd between Andover Dr and Wexford Rd TAP	Superior	Non-motorized	Const.	\$ 0	\$ 110		\$ 110
Huron River Dr B2B Trail between Zeeb Rd and Delhi Metropark	Scio	Non-motorized - Segment D3	Const.	\$ 1,000	\$ 1,215		\$ 2,215
Primary Road Non-Motorized Total				\$ 1,000	\$ 1,325	\$ 545	\$ 2,870
2025 Road Projects							
Project Location	Township	Type of Project	Status				
7 Mile Rd between Earhart Rd and Dixboro Rd	Northfield	Mill & Resurfacing	Const.		\$ 171		\$ 171
8 Mile Rd between Pontiac Trl and Currie Rd	Salem	Sealcoat	Const.		\$ 120		\$ 120
Ann Arbor-Saline Rd at Ellsworth Rd	Lodi/Pittsfield	Hill Cut	Const.		\$ 275		\$ 275
Ann Arbor-Saline Rd between Pleasant Lk Rd and Saline City limits	Lodi	Sealcoat	Const.		\$ 84		\$ 84
Bunton Rd between Bemis Rd and Textile Rd	Ypsilanti	Sealcoat	Const.		\$ 80		\$ 80
Clark Rd/HRD between Golfside to Hewitt	Ypsilanti	Resurfacing	Const.	\$ 240		\$ 70	\$ 310
County-Wide Sealcoat	County-Wide	Sealcoat	Const.			\$ 150	\$ 150
Curtis Rd between Plymouth Rd and Joy Rd	Superior	Resurfacing	Const.	\$ 170		\$ 30	\$ 200
Dexter-Chelsea Rd between Freer Rd and Dancer Rd	Lima	Resurfacing	Const.	\$ 526		\$ 15	\$ 541
Dexter-Pinkney Rd between McGregor Rd and County Line	Dexter	Resurfacing	Const.	\$ 170		\$ 52	\$ 222
Earhart Rd between Plymouth Rd and M-14	Ann Arbor	Resurfacing	Const.	\$ 600		\$ 160	\$ 760

Appendix D: List of Planned Road Projects on Primary Roads, 2024-2026

Primary Road Projects				Federal/State Funded Construction (000's)	Others Funded Construction (000's)	WCRC Funded Construction (000's)	Total Cost (000's)
Ellsworth Road between Platt Rd and Carpenter	Pittsfield	Resurfacing	Const		\$ 470		\$ 470
Geddes Rd at Superior Rd	Superior	Mill & Resurfacing	Const		\$ 150		\$ 150
Geddes Rd between Ann Arbor Twp line and County line	Superior	Sealcoat	Const		\$ 240		\$ 240
Golfside Rd between Packard and HRD/Clark Rd	Ypsilanti	Resurfacing	Const.	\$ 400		\$ 110	\$ 510
Grove Road Stabilization	Ypsilanti	Slope Stabilization	Const.			\$ 110	\$ 110
Holmes Rd between Ford Blvd and US-12	Ypsilanti	Mill & Resurfacing	Const		\$ 354		\$ 354
Huron River Dr between Whittaker Rd and Textile Rd	Ypsilanti	Sealcoat	Const		\$ 112		\$ 112
Jackson Road between Parker Rd and Dino Dr.	Scio	Resurfacing	Const.	\$ 417		\$ 114	\$ 531
Liberty Rd between Zeeb Rd and Scio Ridge Rd	Scio	Mill & Resurfacing	Const		\$ 488		\$ 488
Macon Rd between James Dr and Saline City limits	Saline	Mill & Resurfacing	Const		\$ 281		\$ 281
Maple Rd between Craig Rd and M-14	Scio	Mill & Resurfacing	Const		\$ 110		\$ 110
Miller Rd between Wagner Rd and City of Ann Arbor Limits	Scio	Sealcoat	Const		\$ 25		\$ 25
Mooreville Rd between Dennison Rd and Saline-Milan Rd	York	Sealcoat	Const		\$ 58		\$ 58
Nixon Rd from Us-23 to Pontiac Trail	Ann Arbor	Resurfacing	Const.	\$ 500		\$ 135	\$ 635
North Territorial Rd between Whitmore Lk Rd and Dixboro Rd	Northfield	Sealcoat	Const		\$ 210		\$ 210
Parker Rd between Jackson Rd and Dexter Chelsea Rd	Lima/Scio	Mill & Resurfacing	Const		\$ 651		\$ 651
Plymouth Rd between Dixboro Rd and Salem Twp line	Superior	Sealcoat	Const		\$ 254		\$ 254
Plymouth Rd between US-23 and Dixboro Rd	Ann Arbor	Crackseal	Const		\$ 28		\$ 28
Pontiac Trl between 7 Mile Rd and 8 Mile Rd	Salem	Sealcoat	Const		\$ 50		\$ 50
Prospect Rd between Plymouth Rd and Geddes Rd	Superior	Sealcoat	Const		\$ 170		\$ 170
Scio Church Rd between M-52 and Township Line	Sylvan	Sealcoat	Const		\$ 40		\$ 40
Scio Church Rd between Zeeb Rd and Wagner Rd	Scio/Lodi	Sealcoat	Const		\$ 80		\$ 80
State Rd between US-12 and Old State Rd	Pittsfield	Mill & Resurfacing	Const		\$ 325		\$ 325
State Rd between US-12 to Old State Rd	Pittsfield	Resurfacing	Const.		\$ 403	\$ 10	\$ 413
Stony Creek Rd between Mooreville Rd and Saline-Milan Rd	York	Sealcoat	Const		\$ 32		\$ 32
Textile Rd between Ann Arbor-Saline Rd and Twp line	Lodi	Sealcoat	Const		\$ 39		\$ 39
W Waters Rd between Oak Valley Dr to Ann Arbor-Saline Rd	Pittsfield	Resurfacing	Const.	\$ 120		\$ 40	\$ 160
Waterloo Rd between Clark Lk Rd and Lingane Rd	Lyndon	Pulverize & Pave	Const.		\$ 88	\$ 10	\$ 98
Werkner Rd between Island Lake Rd and Sylvan township line	Lyndon	Sealcoat	Const		\$ 87		\$ 87
Werkner Rd between M-52 and Sibley Rd	Sylvan	Pulverized & Resurface	Const		\$ 382		\$ 382
Werkner Rd between M-52 and Township line	Sylvan	Sealcoat	Const		\$ 7		\$ 7
Whitmore Lk Rd between M-14 Ramps and Stein Rd	Ann Arbor	Resurfacing	Const.	\$ 188		\$ 51	\$ 239
Primary Road Pavement Total				\$ 3,331	\$ 5,864	\$ 1,057	\$ 10,252
2025 Gravel Road Projects							
County-Wide	County-Wide	Limestone/Gravel Resurfacing	Const.			\$ 100	\$ 100
McCullum Rd between US-12 and Bermeister Rd	Bridgewater	Limestone/Gravel Resurfacing	Const.		\$ 175		\$ 175
Primary Road Limestone Total				\$ 175	\$ 100	\$ 275	\$ 275
2025 Bridge & Culvert Projects							
Ann Arbor-Saline Rd N or Ellsworth Rd over Pittsfield No.1 Drain	Pittsfield	Culvert Replacement	Const.		\$ 65		\$ 65
Primary & Local Rd CB Cleaning	County-wide	Maintenance	Const.			\$ 100	\$ 100

Appendix D: List of Planned Road Projects on Primary Roads, 2024-2026

Primary Road Projects				Federal/State Funded Construction (000's)	Others Funded Construction (000's)	WCRC Funded Construction (000's)	Total Cost (000's)
Primary & Local Rd CB Repair	County-wide	Rehabilitation	Const.			\$ 100	\$ 100
			Primary Road Bridge & Culvert Total		\$ 65	\$ 200	\$ 265
2025 Traffic & Safety Projects							
County-wide	County-wide	Forestry	Const.			\$ 100	\$ 100
County-wide	County-wide	Guardrail Program	Const.			\$ 160	\$ 160
Clark Rd @ Prospect Rd	Ypsilanti	Traffic Signal	Const.			\$ 150	\$ 150
N Territorial Road between US-23 and Napier	Salem	Centerline Rumble Strips	Const.	\$ 180		\$ 30	\$ 210
Various Locations-Countywide	County-wide	Centerline Rumble Strips	Const.	\$ 198		\$ 32	\$ 230
Parker Rd @ Shield Rd	Scio	Traffic Signal	Const.	\$ 280		\$ 85	\$ 365
Huron Rd @ Brinker Way	Ypsilanti	Intersection	Const.		\$ 300		\$ 300
County-wide Pavement Marking Program	County-wide	Pavement Marking Program	Const.			\$ 325	\$ 325
			Primary Road Traffic & Safety Total	\$ 658	\$ 300	\$ 882	\$ 1,840
2025 Non-Motorized Projects							
County-wide	County-wide	Non-motorized improvements	Const.			\$ 400	\$ 400
Geddes Rd between Andover Dr and Wexford Rd TAP	Superior	Non-motorized	Const.	\$ 590	\$ 300		\$ 890
Superior Twp ADA TAP	Superior	Non-motorized	Const.	\$ 500	\$ 130		\$ 630
State Rd Pathway TAP	Pittsfield	Non-motorized	Const.	\$ 1,250	\$ 529		\$ 1,779
Huron River Dr B2B Trail between Delhi Metropark and Wagner Rd	Scio	Non-motorized - Segment D4	Const.	\$ 2,000	\$ 2,625		\$ 4,625
			Primary Road Non-Motorized Total	\$ 4,340	\$ 3,584	\$ 400	\$ 8,324
2026 Road Projects							
7 Mile Rd between Dixboro Rd and Angle Rd	Salem	Sealcoat	Const.		\$ 86		\$ 86
8 Mile Rd between Lemen Rd and county line	Northfield	Pulverize & Resurface	Const.		\$ 132		\$ 132
Bemis Rd between Warner Rd and Platt Rd	Pittsfield/York	Pulverize & Resurface	Const.		\$ 457		\$ 457
Bridge Rd between Textile Rd and Grove Rd	Ypsilanti	Mill & Resurface	Const.		\$ 162		\$ 162
Clark Rd between Prospect Rd and Leforge Rd	Superior/Ypsilanti	Mill & Resurface	Const.		\$ 220		\$ 220
Cross Rd between Harris Rd and Ypsilanti City limits	Ypsilanti	Mill & Resurface	Const.		\$ 145		\$ 145
Dexter Chelsea Rd between Chelsea city limits and Parker Rd	Lima	Sealcoat	Const.		\$ 230		\$ 230
Dexter-Pinckney Rd between North Territorial Rd and County Line	Dexter	Sealcoat	Const.		\$ 123		\$ 123
Dixboro Rd at Pontiac Trail	Salem	Intersection Improvement - Roundabout	Const.	\$ 1,200		\$ 485	\$ 1,685
Dixboro Rd between Huron River Dr and Geddes Rd	Ann Arbor	Mill & Resurface	Const.		\$ 155		\$ 155
Dixboro Rd between M14 and N Territorial Rd	Northfield/Ann Arbor/Superior/Salem	Resurfacing	Const.	\$ 504		\$ 136	\$ 640
Earhart Rd between Plymouth Rd and Ann Arbor City limits	Ann Arbor	Sealcoat	Const.		\$ 48		\$ 48
Ellsworth Rd between Golfside and Hewitt	Ypsilanti	Resurfacing	Const.	\$ 382		\$ 105	\$ 487
Grass Lake Rd between Sylvan Rd and M-52	Sharon	Mill & Resurface	Const.		\$ 200		\$ 200
Grove St between Emerick St and Harris Rd	Ypsilanti	Resurfacing	Const.	\$ 370		\$ 91	\$ 461
Hankerd Rd between North Territorial Rd and county line	Dexter	Resurface	Const.		\$ 640		\$ 640
Hewitt Rd between Packard Rd and M-17 (Washtenaw Av)	Ypsilanti	Reconstruction	Const.	\$ 1,070		\$ 430	\$ 1,500
HRD- Mast @ HRD @ Joy Rd	Webster	Intersection Improvement - Roundabout	Const.	\$ 1,100		\$ 890	\$ 1,990
Martz Rd at Whittaker Rd	Ypsilanti	Intersection Improvement - Roundabout	Const.	\$ 1,200		\$ 495	\$ 1,695
McGregor Rd between Dexter Pinckney Rd and county line	Dexter/Webster	Sealcoat	Const.		\$ 32		\$ 32

Appendix D: List of Planned Road Projects on Primary Roads, 2024-2026

Primary Road Projects				Federal/State Funded Construction (000's)	Others Funded Construction (000's)	WCRC Funded Construction (000's)	Total Cost (000's)
McGregor Rd between Tyler Rd and William Ave	Ypsilanti	Sealcoat	Const.		\$ 34		\$ 34
Munger Rd between Textile Rd and US-12	Pittsfield/Ypsilanti	Mill & Resurface	Const.		\$ 275		\$ 275
Old US-12 from County Line to I-94	Sylvan	Resurfacing	Const.	\$ 703		\$ 60	\$ 763
Parker Rd between Scio Church Rd and Jerusalem Rd	Scio & Lima	Sealcoat	Const.		\$ 80		\$ 80
Platt Rd between US-12 and Ellsworth Rd	Pittsfield	Sealcoat	Const.		\$ 84		\$ 84
Plymouth Road between Dixboro Rd and M-153	Superior	Resurfacing	Const.	\$ 465		\$ 125	\$ 590
Pontiac Trail between Joy Rd and Dixboro Rd	Northfield	Sealcoat	Const.		\$ 98		\$ 98
Reno Rd between Heiber Rd and Pleasant Lake Rd	Freedom	Mill & Resurface	Const.		\$ 99		\$ 99
Ridge Rd between Mott Rd and county line	Superior	Sealcoat	Const.		\$ 92		\$ 92
Scio Church Rd at Zeeb Rd	Scio	Intersection Improvement - Roundabout	Const.	\$ 1,000		\$ 615	\$ 1,615
Stone School Rd between Ellsworth Rd and Varsity Dr	Pittsfield	Mill & Resurface	Const.		\$ 88		\$ 88
Stony Creek Rd between Willis and Bemis	Augusta	Resurfacing	Const.	\$ 600		\$ 143	\$ 743
Superior Rd between Geddes Rd and township line	Superior	Sealcoat	Const.		\$ 40		\$ 40
Sutton Rd between North Territorial Rd and Pontiac Trail	Northfield	Sealcoat	Const.		\$ 64		\$ 64
Wagner Rd between Miller Rd and Huron River Dr	Scio	Mill & Resurface	Const.		\$ 198		\$ 198
Waterloo Rd between Cassidy Rd and Lingaine Rd	Lyndon	Mill & Resurface	Const.		\$ 114		\$ 114
Waterloo Rd between Clarks Rd and M-52	Lyndon	Mill & Resurface	Const.		\$ 140		\$ 140
Whitehall Rd between Earhart Rd and Plymouth Rd	Ann Arbor	Mill & Resurface	Const.		\$ 110		\$ 110
Whittaker Rd between Milan Oakville Rd and Arkona Rd	Augusta	Mill & Resurface	Const.		\$ 220		\$ 220
Zeeb Rd between Dexter Ann Arbor Rd and Joy Rd	Scio	Mill & Resurface	Const.		\$ 512		\$ 512
Primary Road Pavement Total				\$ 8,594	\$ 4,878	\$ 3,575	\$ 17,047
2026 Gravel Road Projects							
Lima Center Rd between Beach Rd and Township line	Lima	Limestone Overlay	Const.		\$ 17		\$ 17
Lima Center Rd between Island Lake Rd and township line	Dexter	Limestone Overlay	Const.		\$ 88		\$ 88
County-Wide	County-Wide	Limestone/Gravel Resurfacing	Const.			\$ 100	\$ 100
Primary Road Limestone Total				\$ 105	\$ 100	\$ 205	
2026 Bridge & Culvert Projects							
Dexter-Ann Arbor Rd over Honey Creek	Scio	Bridge Replacement	Design			\$ 110	\$ 110
Main Street Whitmore Lake over Horseshoe Lake Outlet - STR 10999	Northfield	Bridge Replacement	Const.	\$ 1,850		\$ 823	\$ 2,673
Primary & Local Rd CB Cleaning	County-wide	Maintenance	Const.			\$ 100	\$ 100
Primary & Local Rd CB Repair	County-wide	Rehabilitation	Const.			\$ 100	\$ 100
Primary Road Bridge & Culvert Total				\$ 1,850	\$ 1,133	\$ 2,983	
2026 Traffic & Safety Projects							
CMAQ- N Zeeb Rd, Huron Rd, Textile Rd, Bridge Rd, Grove Rd	Multiple	Traffic Signal	Const.	\$ 1,000			\$ 1,000
CMAQ- Signals Interconnect- Island Lake Rd, Main St, Ann Arbor Rd	Dexter Twp & Dexter City	Signal Upgrades/ Roundabout	Const.	\$ 1,600		\$ 370	\$ 1,970
County-wide	County-wide	Forestry	Const.			\$ 100	\$ 100
County-wide Guardrail	County-Wide	County-Wide Guardrail	Const.			\$ 160	\$ 160
County-wide Pavement Marking Program	County-wide	Pavement Marking Program	Const.			\$ 325	\$ 325
Primary Road Traffic & Safety Total				\$ 2,600	\$ 955	\$ 3,555	
2026 Non-Motorized Projects							
County-wide	County-wide	Non-motorized improvements	Const.			\$ 400	\$ 400
Primary Road Non-Motorized Total						\$ 400	\$ 400

Appendix E: List of Unfunded Primary Road Paving Rehabilitation Projects

Unfunded Primary Road Paving Rehabilitation Projects

Road	Limits	Township	Designated (All Season) Route	Urban	Average Daily Traffic (ADT)	Length (Miles)	PASER Rating	Work Type	Estimated Treatment Cost per Mile	Estimated Cost
6 Mile Rd	Chubb Rd to Napier Rd	Salem	No	Yes	3,800	1	2	Pulverize & Pave	\$ 450,000	\$ 450,000
Airport Dr	Wiard Rd to Tyler Rd	Ypsilanti	Yes	Yes	3,500	1.07	2	Mill & Overlay	Multi-lane	\$ 500,000
Freer Rd	Luick Rd to Old US-12	Lima	No	No	N/A	0.37	2	Pulverize & Pave	\$ 450,000	\$ 166,500
Herman Rd	Watkins to Noggles Rd	Manchester	No	No	1,200	0.86	3	Pulverize & Pave	\$ 450,000	\$ 387,000
Tyler Rd	Wiard Rd to Airport Dr	Ypsilanti	Yes	Yes	800	0.87	2	Mill & Overlay	Multi-lane	\$ 500,000
Waterloo Rd	Cassidy Rd to county line	Sylvan	No	No	N/A	3.4	4	Pulverize & Pave	\$ 450,000	\$ 1,530,000
7 Mile Rd	7 Mile Rd to Napier Rd	Salem	No	Yes	5,700	4.2	2-3	Pulverize & Pave	\$ 450,000	\$ 1,890,000
Curtis Rd	5 Mile Rd to Joy Rd	Salem	No	No	6,800	2.87	3-4	Pulverize & Pave	\$ 450,000	\$ 1,291,500
Michigan Ave	Hewitt Rd to City of Ypsilanti	Ypsilanti	Yes	Yes	15,100	0.89	4	Mill & Overlay	\$ 250,000	\$ 222,500
Bunton Rd	Willis Rd to Bemis Rd	Augusta	No	Yes	1,400	1	2	Pulverize & Pave	\$ 450,000	\$ 450,000
Sylvan Rd	Helm to Old US-12	Sylvan	No	No	480	2.2	2-3	Pulverize & Pave	\$ 450,000	\$ 990,000
Arkona Rd	US-23 ramp to Sanford Rd	York	Yes	Yes	570	0.6	2	Pulverize & Pave	\$ 450,000	\$ 270,000
Wagner Rd	Jackson Ave to Wagner Ridge	Scio	No	Yes	12,400	0.82	3-4	Mill & Overlay	\$ 250,000	\$ 205,000
Old State Rd	State Rd to US-12	Pittsfield	Yes	Yes	N/A	0.26	3	Mill & Overlay	\$ 250,000	\$ 65,000

Total mileage 20.41

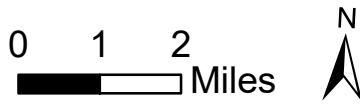
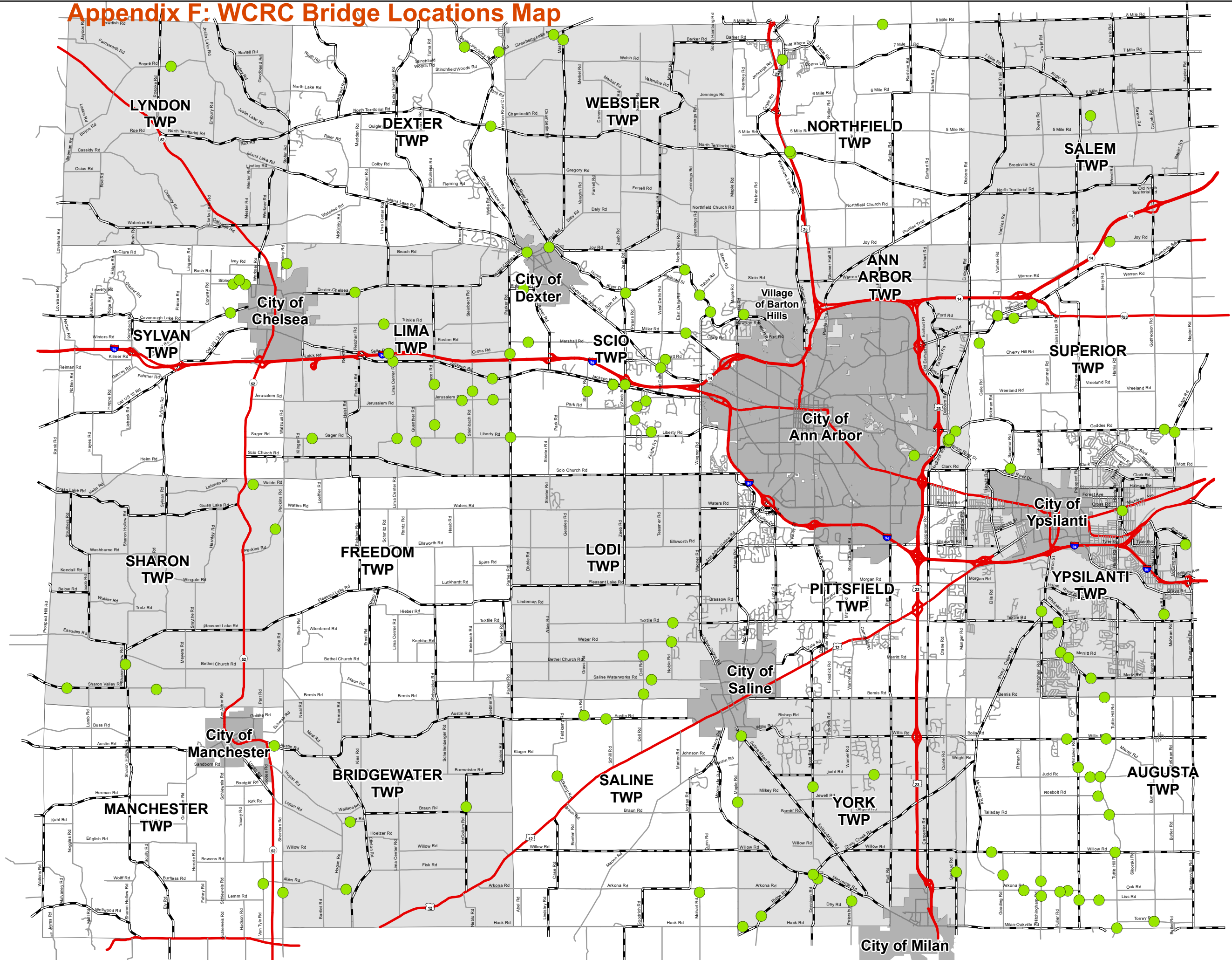
Total costs \$ 8,917,500

Appendix F: WCRC Bridge Locations Map



2024 Bridge Inventory

Bridge Locations ●



Appendix G: List of Unfunded Bridge Projects

Unfunded Primary Road Bridges

Structure ID	Road	Feature (Water Course)	Township	Restriction	Designated (All Season) Route	Urban	Average Daily Traffic (ADT)	Rating	Existing Span	Existing Width	Proposed Span	Proposed Width	Estimated Cost
10968	WILLIS RD	PAINT CREEK	Augusta	42/66/77	No	No	6,209	4	35.8	27.6	56	41	\$ 2,426,000
10987	DEXTER-ANN ARBOR RD	LETTS CREEK	Lima	42/63/73	Yes	No	3,320	4	62.0	37.4	70	41	\$ 2,759,000
13913	PARKER RD	TRIB TO MILL	Scio	22/47/55	No	No	4,200	3	20.5	88.0	20	80	\$ 1,910,000
14363	DEXTER-ANN ARBOR RD	HONEY CREEK	Scio	16/50/58	No	Yes	6,300	4	33.0	44.0	45	41	\$ 1,875,000
10984	FORD RD	FLEMING CREEK	Superior	31/40/66	No	Yes	4,300	4	42.0	40.4	50	41	\$ 2,155,000
10982	PLYMOUTH RD	FLEMING CREEK	Superior	-	Yes	Yes	6,500	3	28.9	-	30	45	\$ 1,733,000
Total costs													\$ 12,858,000

Unfunded Local Road Bridges

Structure ID	Road	Feature (Water Course)	Township	Restriction	Designated (All Season) Route	Urban	Average Daily Traffic (ADT)	Rating	Existing Span	Existing Width	Proposed Span	Proposed Width	Estimated Cost
10973	OLD DIXBORO ROAD	HURON RIVER	Ann Arbor	20-NN-NN	No		280	4	55.8	35.8	56	34	\$ 5,000,000
10974	OLD DIXBORO ROAD	HURON RIVER	Ann Arbor	20-NN-NN	No		280	4	55.8	35.8	56	34	\$ 5,000,000
11015	JERUSALEM ROAD	MILL CREEK	Lima	42/57/71	No		80	4	33.8	17.7	54	40	\$ 1,836,000
11033	BEMIS	PAINT CREEK	Ypsilanti	-	No		320	4	31.8	24.0	45	36	\$ 1,483,000
11035	MERRITT RD	PAINT CREEK	Ypsilanti	-	No		420	4	31.8	27.2	45	36	\$ 1,496,000
11046	GRASS RD	BAUERDRAIN	Saline	-	No		200	4	29.9	21.0	40	36	\$ 1,341,000
11055	ARKONA RD	STONYCREEK	Augusta	-	No		150	4	37.7	21.0	50	36	\$ 1,611,000
11056	FULLER ROAD	SUGARCREEK	Augusta	34/58/77	No		40	4	32.8	24.0	40	36	\$ 1,361,000
13926	JOY ROAD	WAGNER CREEK	Salem	-	No		50	4	22.0	50.0	35	36	\$ 1,276,000
11013	SAGER RD	MILL CREEK	Lima	-	No		60	3	29.9	18.0	40	36	\$ 1,330,000
11044	SHERIDAN ROAD	IRON CREEK	Bridgewater	-	No		50	2	25.9	19.7	35	36	\$ 1,202,000
11047	MOHART	NORTH MACON CREEK	Saline	-	No		130	3	21.0	21.0	35	36	\$ 1,193,000
11048	HACK RD	MACON CREEK	Saline	-	No		150	3	26.9	26.0	35	36	\$ 1,225,000
11053	LISS ROAD	PAINT CREEK	Augusta	-	No		100	3	48.9	24.3	55	36	\$ 1,786,000
11058	ROSBOLT RD	PAINT CREEK	Augusta	16-NN-NN	No		50	3	41.0	16.1	50	36	\$ 1,595,000
13915	SIBLEY ROAD (EAST)	LETTS CREEK	Sylvan	30/59/71	No		150	3	25.0	46.0	35	36	\$ 1,282,000
13916	BUSH ROAD	LETTS CREEK	Sylvan	D Open Temp Shored	No		1,150	3	23.3	62.0	35	36	\$ 1,319,000
Subtotal costs													\$ 31,336,000

Total costs \$ 44,194,000

Appendix H: List of Unfunded Primary Road Culvert Projects

Unfunded Primary Road Culvert Projects



Structure ID	Road	Feature (Water Course)	Township	Restriction	Designated (All Season) Route	Urban	Average Daily Traffic (ADT)	Rating	Existing Span (ft)	Existing Width (ft)	Proposed Span (ft)	Proposed Width (ft)	Estimated Cost
C0111001	6 Mile Rd	Rogue River Trib	Salem	None	No	Yes	3,800	4	10	65	12	70	\$ 404,000
C1703003	Austin Rd	Saline River	Bridgewater	None	No	No	3,300	4	12	50	16	60	\$ 593,000
C1912003	Carpenter Rd	Buck Creek	York	None	Yes	Yes	4,200	4	9.7	51	11	60	\$ 484,000
C1912009	Carpenter Rd	Unnamed Creek	York	None	Yes	Yes	4,200	4	10	45	10	60	\$ 447,000
C0115005	Curtis Rd	Johnson Drain	Salem	None	No	No	5,300	4	10	40	12	60	\$ 365,000
C0127002	Curtis Rd	Wagner Drain	Salem	None	No	No	5,300	4	10	50	9	75	\$ 225,000
C0424001	Dexter Pinckney Rd	Huron Creek	Dexter	None	No	Yes	8,300	4	7	77	11	80	\$ 552,000
C0936004	E Huron River Dr	Swift Drain	Ann Arbor	None	No	Yes	5,000	4	10	80	14	80	\$ 677,000
C1027002	Geddes Rd	Superior #1 Drain	Superior	None	No	No	6,800	4	8	24	12	60	\$ 477,000
C1029001	Geddes Rd	Unnamed Creek	Superior	None	No	No	9,700	3	12	30	14	66	\$ 683,000
C0901001	N Dixboro Rd	Fleming Creek	Ann Arbor/Superior	None	No	No	5,200	3	10.5	45	13	60	\$ 518,000
C0912001	N Dixboro Rd	Fleming Creek	Ann Arbor/Superior	None	No	No	5,200	4	12.5	60	16	66	\$ 619,000
C0221011	North Territorial Rd	O'Connor Drain	Northfield	None	No	No	6,800	4	9.5	33	11	50	\$ 409,000
C0315005	North Territorial Rd	Arms Creek	Webster	None	No	No	7,900	4	7	55	10	60	\$ 437,000
C0621005	Old US 12	Unnamed Creek	Sylvan	None	Yes	No	5,000	3	10	52	10	66	\$ 466,000
C0614001	Old US-12	Unnamed Creek	Sylvan	None	Yes	Yes	6,000	4	15	30	16	60	\$ 590,000
C0909001	Pontiac Trl	Traver Creek	Ann Arbor	None	No	No	3,200	3	6	89	16	90	\$ 798,000
C2013003	Rawsonville Rd	Bradshaw Drain	Augusta	36T/55T/65T	Yes	No	4,200	3	10	52	10	66	\$ 352,000
C0211001	S Rushton Rd	Unnamed Channel	Northfield	None	No	No	300	4	7	50	12	66	\$ 511,000
C1921002	Saline Milan Rd	Trib to Saline River	York	None	No	No	3,700	4	8	35	12	60	\$ 483,000
C0834002	Scio Church Rd	Unnamed Channel	Scio/Lodi	None	No	Yes	4,900	4	6	60	9	60	\$ 210,000
C2006001	Stony Creek Rd	McCarthy Drain	Augusta	None	No	Yes	1,900	4	6.3	30	6	60	\$ 332,000
C1032005	Superior Rd	Snidecar Drain	Superior	None	No	Yes	6,000	4	10	35	14	60	\$ 549,000
C0628002	Sylvan Rd	Letts Creek	Sylvan	None	No	No	400	4	8	60	10	66	\$ 465,000
C1503003	Sylvan Rd	Unnamed Creek	Sharon	None	No	No	400	4	6	50	9	66	\$ 213,000
C1130001	Textile Rd	Unnamed Creek	Ypsilanti	None	No	Yes	8,200	4	10	55	13	66	\$ 735,000
C0105001	W 8 Mile Rd	Unnamed Channel	Salem	None	No	Yes	9,000	4	10	38	12	60	\$ 488,000
C1033002	W Clark Rd	Superior #1 Drain	Superior/Ypsilanti	None	No	Yes	4,900	4	15	85	11	60	\$ 354,000
C0601001	Werkner Rd	North Fork Mill Creek	Sylvan	None	No	Yes	600	4	8	60	12	66	\$ 389,000
C1906001	Willis Rd	Pittsfield #5 Drain	York	None	No	Yes	2,500	4	15	39	15	60	\$ 386,000

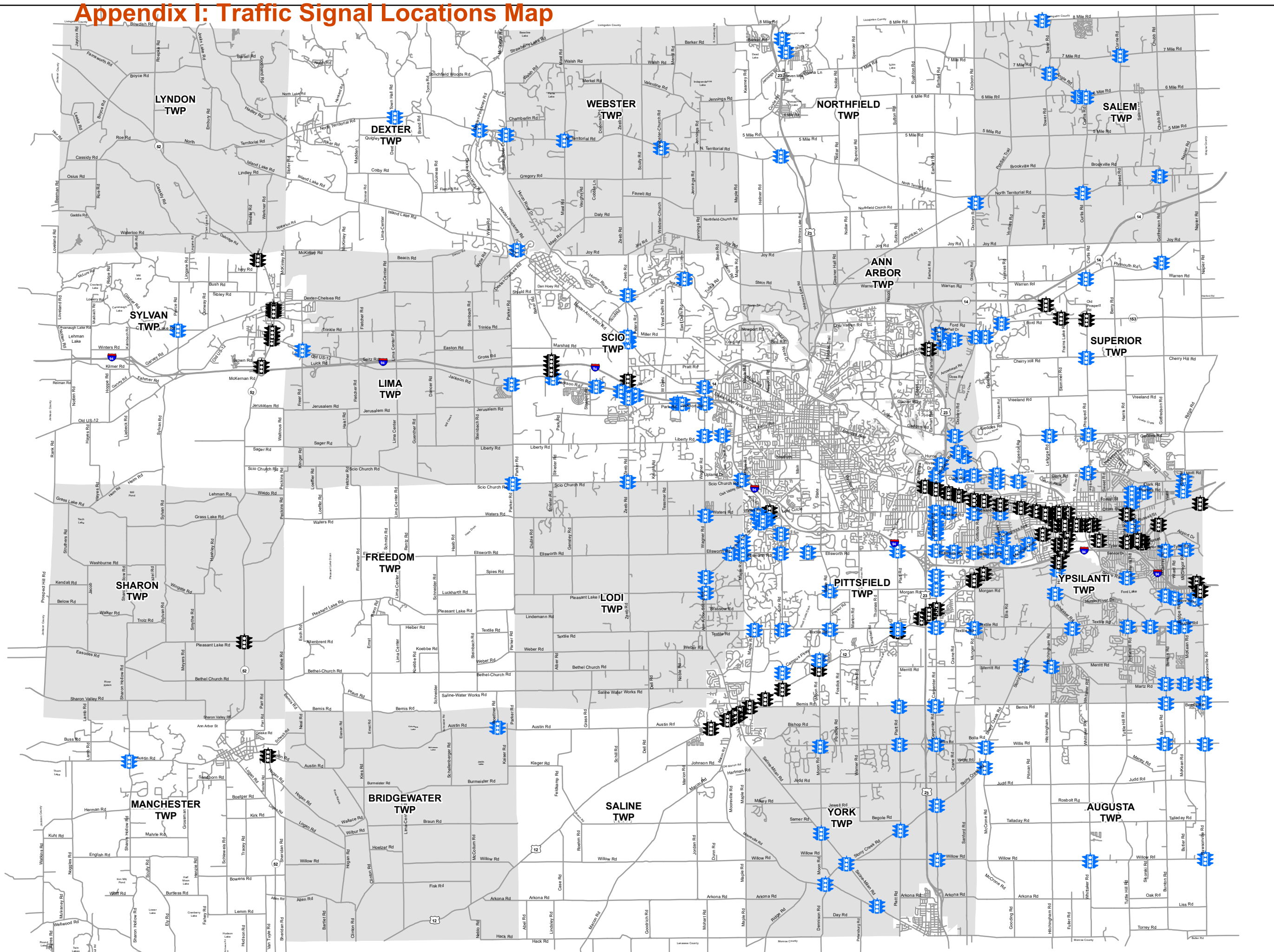
Total costs \$ 14,211,000

Appendix I: Traffic Signal Locations Map




Traffic Signal Locations

-  WCRC Signals
-  MDOT Signals



Appendix J: Community Engagement Policy and Procedure

 <p>ORGANIZATIONAL POLICY</p>	<p>GENERAL ADMINISTRATION APPLICATION: All Employees</p>				
<p>TITLE: Community Engagement</p>	<p>RESOLUTION NUMBER RC18-314</p>	<p>SUPERCEDE N/A</p>	<p>EFFECTIVE DATE 09/04/2018</p>	<p>SUPERCEDE N/A</p>	<p>POLICY NUMBER ADMN-</p>

DIRECTIVE

The purpose of this policy is to formalize community engagement processes that have been in place for years and to provide clear direction to staff on how and when to engage with the community regarding Washtenaw County Road Commission (WCRC) road improvement projects.

GOAL

It is WCRC’s goal to continue to engage with the community, including elected officials.

This policy and procedure will clarify specific community engagement tactics related to a road improvement project, determined by the project’s scope/scale.

REPRESENTATIVES

The managing director, director of engineering, director of operations and communications manager will work with Board of County Road Commissioners of the County of Washtenaw and the community to develop, implement and evaluate the effectiveness of this policy.

PRINCIPALS

- Provide as much information as possible.
- Share project information on WCRC channels in a timely and professional manner.
- Respond to community inquiries about specific projects in a timely and professional manner.
- Communicate consistently about projects of comparative scope/scale.
- Strive for continuous improvement in all community engagement.

PROJECT SCOPE DETERMINATION

WCRC will categorize projects into three different tracks based on the following criteria:

- Project cost
- Type of work
- Duration of road closure
- Environmental impact (such as degree of tree removals)
- Other special circumstances determined by WCRC

Appendix J: Community Engagement Policy and Procedure

The level of community engagement will be determined by the track the project fits into (see community engagement procedure chart).

COMMUNICATION CHANNELS

WCRC staff will use a variety of channels to engage the community depending on which track the WCRC road construction project fits into.


The current channels available to WCRC include:

- Project webpage within wcroads.org
- Email updates
- Weekly road work updates
- Social media
 - Facebook and Twitter
- Media advisories
- Public meeting(s)
- Mailings
- Electronic sign boards

External channels that may share information related to road construction include:

- Township newsletters and meetings
- Community groups
- Local print and electronic media

Appendix J: Community Engagement Policy and Procedure

	INTEROFFICE PROCEDURE	INTEROFFICE PROCEDURE APPLICATION: All Employees		
TITLE: Community Engagement	EFFECTIVE DATE 09/04/2018	SUPERSEDE		

Major Project - Track 1		Minor Project - Track 2		Routine Maintenance - Track 3	
Project Scope		Project Scope		Project Scope	
-Project costs more than \$500,000 AND/OR -Project is changing the character of the road AND/OR -If a major road will be closed for more than two weeks AND/OR -Project includes significant tree removal		-Road will be closed more than a day, but less than two weeks AND/OR -Emergency repair work AND/OR -Other significant traffic impacts		-Routine Maintenance AND/OR -Road will be closed for less than a day	
Required Steps	Optional Steps	Required Steps	Optional Steps	Required Steps	Optional Steps
Staff will notify chief township officials through email, phone call and/or "Project Announcement" release.	During the grant application process, staff will inform the County Board of Road Commissioners of the call for projects and grant applications submitted.	Staff will notify chief township officials through email or phone call.	Staff will create a project webpage on wcrowds.org.	Staff will share general information on WCRC's webpage.	Staff will post work updates on WCRC's social media pages.
Staff will mail letter to residents within the project limits explaining project details, and will mail/email a copy of the letter to township officials and county commissioner for that district.	If a grant is approved, staff will inform the County Board of Road Commissioners and post the grant application and approval notice to wcrowds.org.	Staff will include the project on the Weekly Road Work Update during construction.	Staff will post project updates on WCRC's social media pages.		Staff will send out Media Advisory to township list when road is closed or lane restricted.
Staff will hold construction information meeting before project starts and invite residents within the project limits via mailed letter and other impacted residents via social media and website.	<i>When appropriate:</i> Staff will hold public meeting during design phase and invite residents within the project limits via mailed letter and other impacted residents via social media and website.	Staff will send out Media Advisory to township list when road is closed or lane restricted.	<i>When appropriate:</i> Staff will set-up message boards near project area providing project information (meeting dates, start dates, project webpage etc.)		Staff will distribute informational flyer explaining upcoming work.
Staff will create a project email list and webpage. Staff will provide at least monthly project updates to this page and email list.	<i>When appropriate:</i> Staff will set-up message boards near project area providing project information (meeting dates, start dates, project webpage etc.).		Once completed, staff will send a "we're open" email to residents, elected officials and post to social media		
Staff will post project updates on WCRC's social media pages.					
Staff will include the project on the Weekly Road Work Update during construction.					
Once completed, staff will send a "we're open" email to residents, elected officials and post to social media.					

Appendix K: Board Resolution

WASHTENAW COUNTY ROAD COMMISSION RESOLUTION CERTIFICATION

2024-2026 WCRC Transportation Asset Management Plan Resolution No. RC24-288 September 3, 2024

"Moved ...

that upon the recommendation of the Director of Engineering/County Highway Engineer and the concurrence of the Managing Director, the Board hereby approves and authorizes the Chair and Managing Director to sign the 2024-2026 WCRC Transportation Asset Management Plan in accordance with Public Act 325.

Roll Call Vote:

YEAS: B. Fuller, R. Green, G. Llamas, J. McCollum, J. Smrz


NAYS: None

ABSENT: None

ABSTAIN: None

Motion Carried.

I hereby certify that the foregoing is a true copy of a resolution duly adopted at a meeting of the Board of Washtenaw County Road Commissioners held on September 3, 2024, and is on file at the Office of the Washtenaw County Road Commission, 555 North Zeeb Road, Ann Arbor, Michigan 48103.

 Digitally signed by Matthew
MacDonell
Date: 2024.09.03 14:57:06 -04'00'

Matthew F. MacDonell, Deputy Clerk