

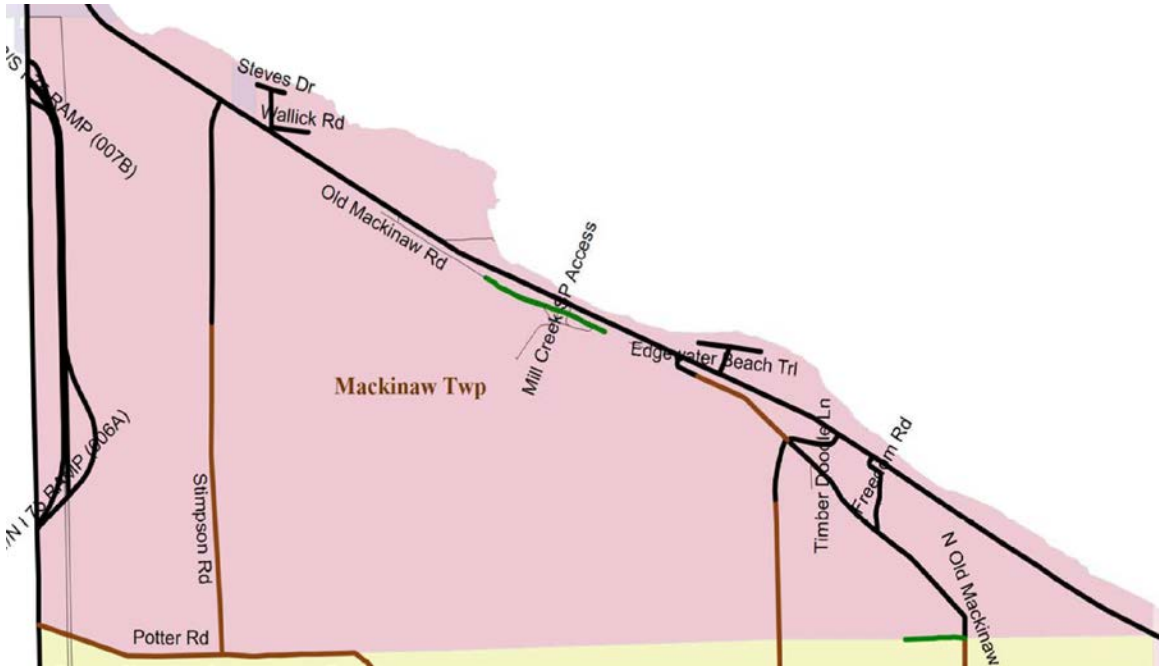
Cheboygan County Road Commission
Mackinaw Township Local Road Ratings Report for 2021

The goal of the Road Commission is to use Asset Management Strategies when planning projects for the roads under the jurisdiction of the Cheboygan County Road Commission. Asset management, as defined by Public Act 199 of 2007, is an “ongoing process of maintaining, upgrading and operating physical assets cost-effectively, based on a continuous physical inventory and condition assessment. Using asset management will allow the Road Commission and Township to invest the available road funds in a manner that will provide the greatest return.



Township Roads by Legal System

Red = State Highways – **Blue** = County Primary Roads – **Orange** = County Local Roads



Roads by Surface Type

Black = Pavement – **Brown** = Gravel – **Green** = Seasonal



**Good / Fair / Poor Condition
Paved Roads (primary and local)**

Green = Good (Rating 10-9-8)

Yellow = Fair (Rating 7-6-5)

Red = Poor (Rating 4-3-2-1)

Blue = Non-paved

PASER Road Rating System

All the local paved roads are rated each year using the PASER Road Rating system in the Township (seasonal roads are not included). PASER, or Pavement Surface Evaluation and Rating, is the rating system that is used in collecting data for RoadSoft. The roads are rated on a scale of 1 to 10 according to surface conditions of the pavement. The tables below show the rating and the suggested maintenance that would be required to preserve the road along with an estimated cost of repair.

PASER Rating and Treatments for Paved Roads

Road Rating	Recommended Repair	Estimated Cost per Mile
10	No maintenance necessary. New Road	\$ 0
9	No Maintenance necessary. Smooth Surface.	\$ 0
8	Minor Crack Sealing	\$ 600
7	General Crack Sealing and/or Minor Patching	\$ 3,200
6	Patching and Sealcoat	\$ 29,000
	Ultra-thin Asphalt Overlay	\$ 63,000
5	Asphalt Wedging	\$ 47,000
	Asphalt Wedging and Sealcoat	\$ 75,000
	Asphalt Wedging and Ultra-thin Asphalt Overlay	\$ 106,000
4	Asphalt Wedging and Overlay	\$ 142,000
3	Pulverize, gravel and pave	\$ 240,000
2	Reconstruction.	\$ 350,000
1	Reconstruction. Failed Road.	\$ 350,000

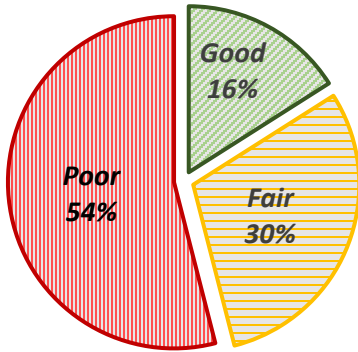
Gravel roads are rated using the Inventory-Based Rating System™ for Gravel Roads (IBR). The IBR system considers three characteristics of a road segment to determine a rating for the segment. Surface width, drainage adequacy and structural adequacy are all evaluated to determine the segment rating. From this evaluation a rating of 1 to 10 is calculated.

IBR Rating and Treatments for Gravel Roads

Road Rating	Existing Condition / Recommended Repair	Estimated Cost per Mile
10	No maintenance necessary. New Road	\$ 0
8 – 9	Good crown and drainage throughout. Adequate gravel for traffic. Maintain with grading and dust control.	\$ 500
6 - 7	Existing crown with drainage on 50% or more of roadway. Additional gravel needed in some areas along with ditching.	\$ 55,000
3 - 5	Little or no crown. Ditched on less than 50% of the road. Additional gravel needed on entire road along with ditching.	\$ 95,000
1 - 2	Failed road. Reconstruction.	\$ 250,000

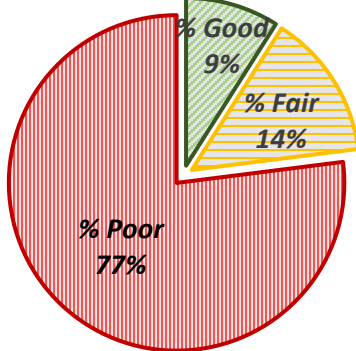
Mackinaw Township Paved Local Road Ratings

Statewide Local Roads



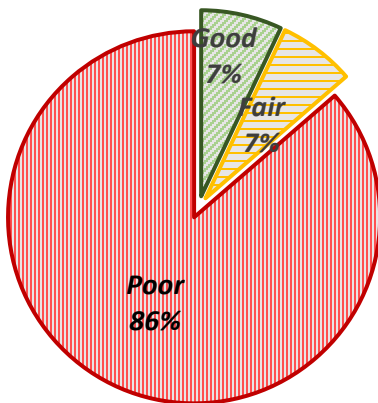
Condition of paved local roads across the State

Countywide Paved Local Roads



Condition of paved local road in Cheboygan County

Mackinaw Township Paved Local Roads



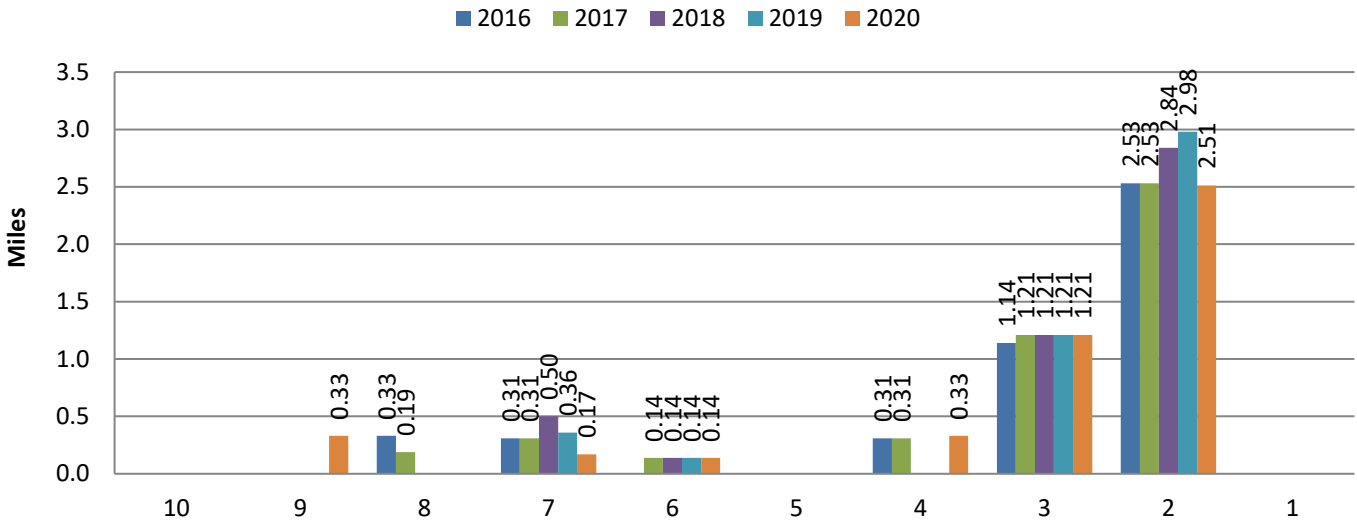
Condition of paved local roads in Inverness Township

Good = PASER Rating 10-9-8 / Fair = PASER Rating 7-6-5 / Poor = PASER Rating 4-3-2-1

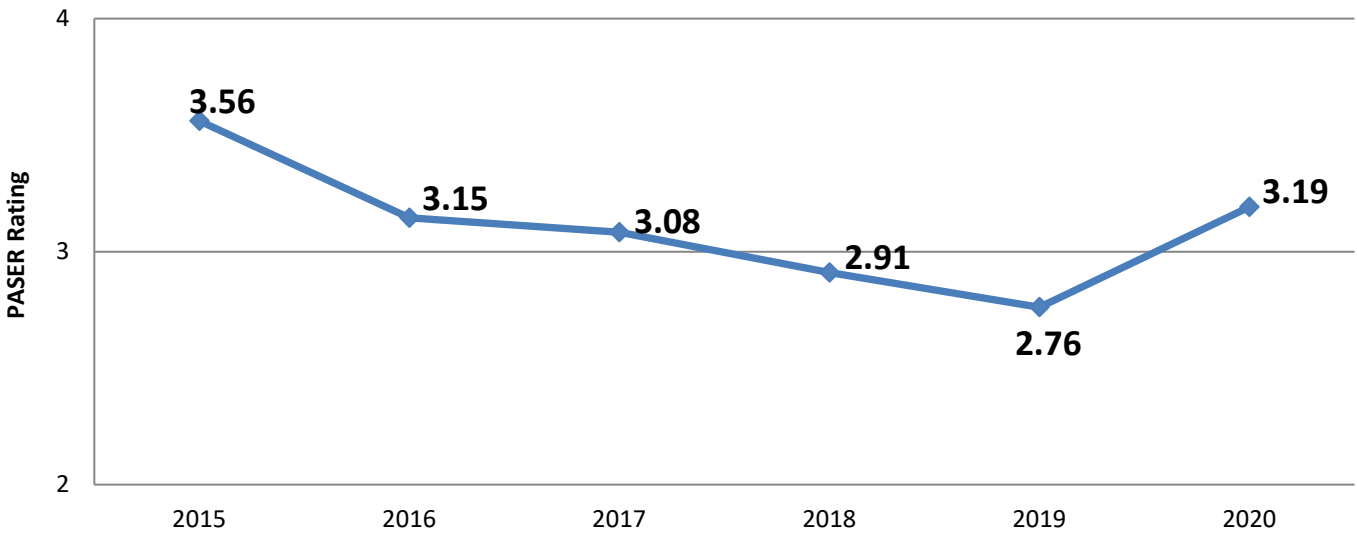
Current Paved Road Ratings

PASER Rating	Road Name	Limits	Length (miles)
10			
9	Mary Ann Boulevard	US-23 to Steve Drive.	0.19
	Steves Drive		0.14
8			
7	Edgewater Beach Road	Birch Trail then easterly to end of road.	0.17
6	Birch Street	US-23 to Edgewater Beach Road.	0.14
5			
4	Edgewater Beach Road	Birch Trail then westerly to end of road.	0.14
	Wallick Road	Mary Ann Boulevard to end of road.	0.19
3	Hebron Mail Road	US-23 to Old Mackinaw Road.	0.31
	Old Mackinaw Trail	US-23 to end of pavement (north end).	0.16
		Freedom Road to Ozzie Road.	0.74
2	Hebron Mail Road	Old Mackinaw Road to end of pavement.	0.31
	Freedom Road	North Old Mackinaw Trail to US-23.	0.43
	Old Mackinaw Trail	Hebron Mail Road to Freedom Road.	0.67
	Stimpson Road	US-23 to end of pavement.	1.10
1			

2017 - 2020 PASER Ratings for Paved Local Roads



Average PASER Rating for Paved Local Roads

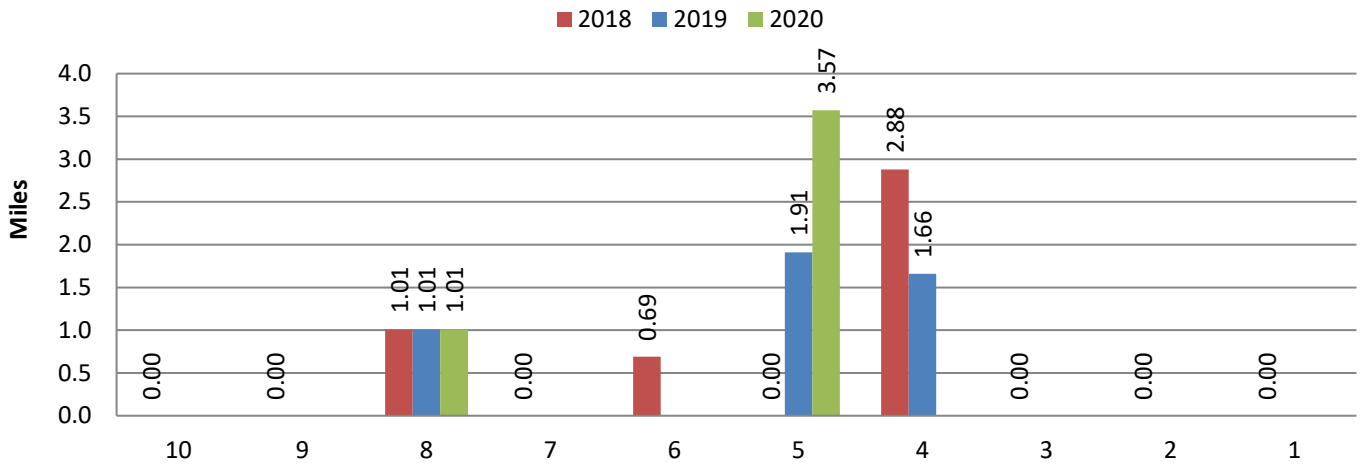


Mackinaw Township Gravel Local Road Ratings

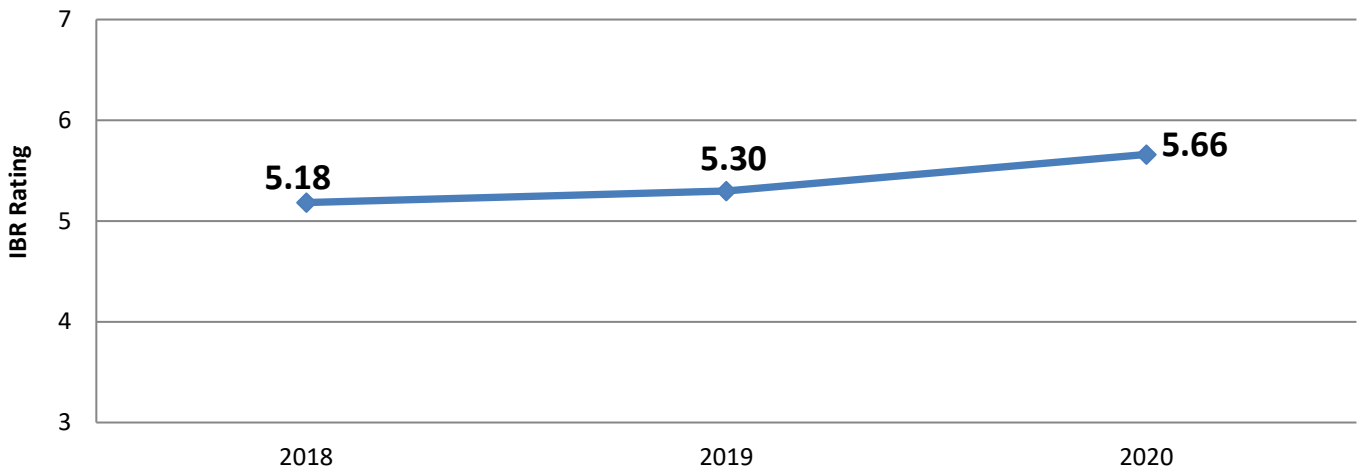
Current Gravel Road Ratings

IBR Rating	Road Name	Limits	Length (miles)
10			
9			
8	Potter Road	Mackinaw Highway to Stimpson Road	1.01
7			
6			
5	Hebron Mail Road	Township Line to the end of pavement.	0.69
	North Old Mackinaw Road	Hebron Mail Road to end of pavement.	0.60
	Potter Road	Stimpson to Township Line.	0.62
	Stimpson Road	Potter Road to end of pavement.	1.66
4			
3			
2			
1			

2018 - 2020 IBR Ratings for Gravel Local Roads



Average IBR Rating for Gravel Local Roads



Service Life of Treatments

Service life is the expected time that a treatment will last before needing complete reconstruction. In the table below, an expected service life for a particular treatment is listed. Before a treatment reaches the expected service life, preventative maintenance should be performed. Preventative maintenance will extend the expected service life of the pavement and treatment.

Service Life of Treatments for Paved Roads

Road Rating	Recommended Repair	Expected Service Life (years)
8	Minor Crack Sealing	5
7	General Crack Sealing and/or Minor Patching	5
6	Patching and Sealcoat Ultra-thin Asphalt Overlay	7 7 – 10
5	Asphalt Wedging Asphalt Wedging and Sealcoat Asphalt Wedging and Ultra-thin Asphalt Overlay	7 7 – 10 10
4	Asphalt Wedging and Overlay	12 – 15
3	Pulverize, gravel and pave	15 – 25
2	Reconstruction.	25 - 30
1	Reconstruction. Failed Road.	25 - 30

For example, if a road has a PASER rating of 6, a treatment of a ultra-thin asphalt overlay is recommended (see the Table titled PASER Ratings and Treatment on page 1). The expected service life for an ultra-thin asphalt overlay is 7-10 years. Preventative maintenance in the form of crack sealing may be required after 2 years.

Expected service life may be shorter if the road is on poor soils that are not addressed as part of the treatment. If a project is selected that is not the recommended treatment, the service life listed in the table above will be shorter and preventative maintenance will need to be performed sooner.

Service Life for a gravel road is difficult to predict. Gravel road conditions can change rapidly based on weather, grading and traffic effects on the roads.