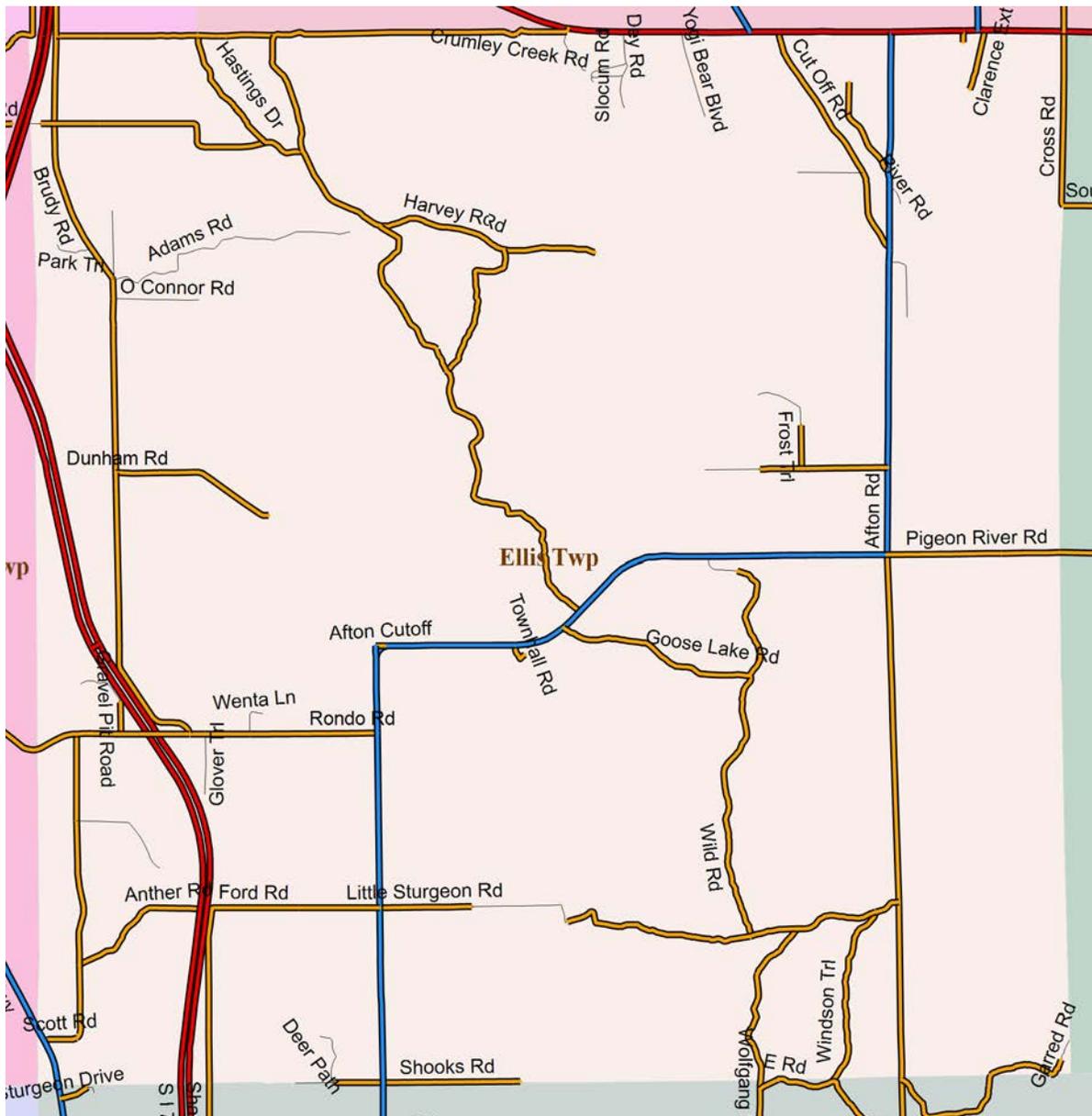


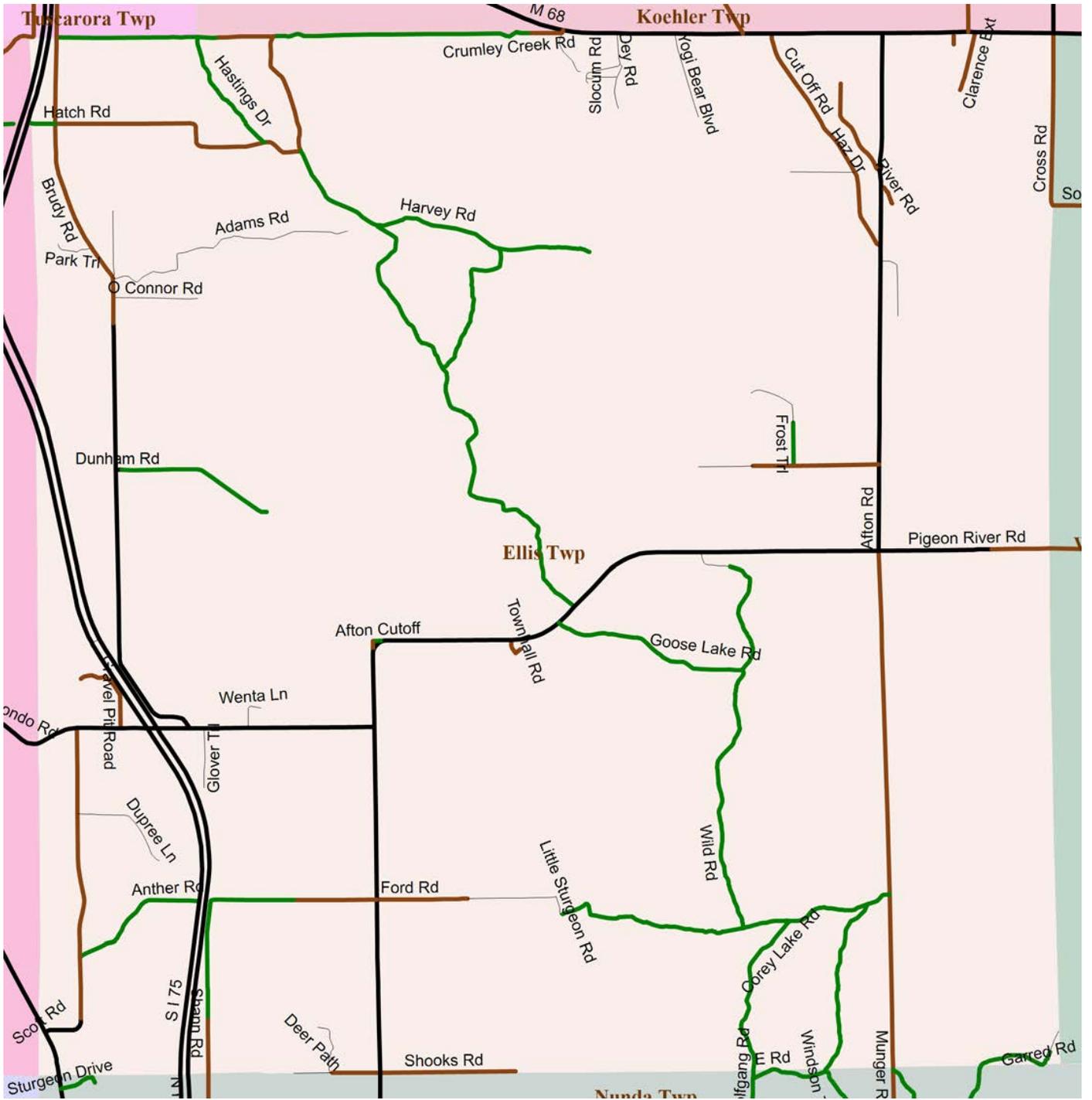
Cheboygan County Road Commission
Ellis Township Local Road Ratings Report for 2020

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

Road Rating Systems

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

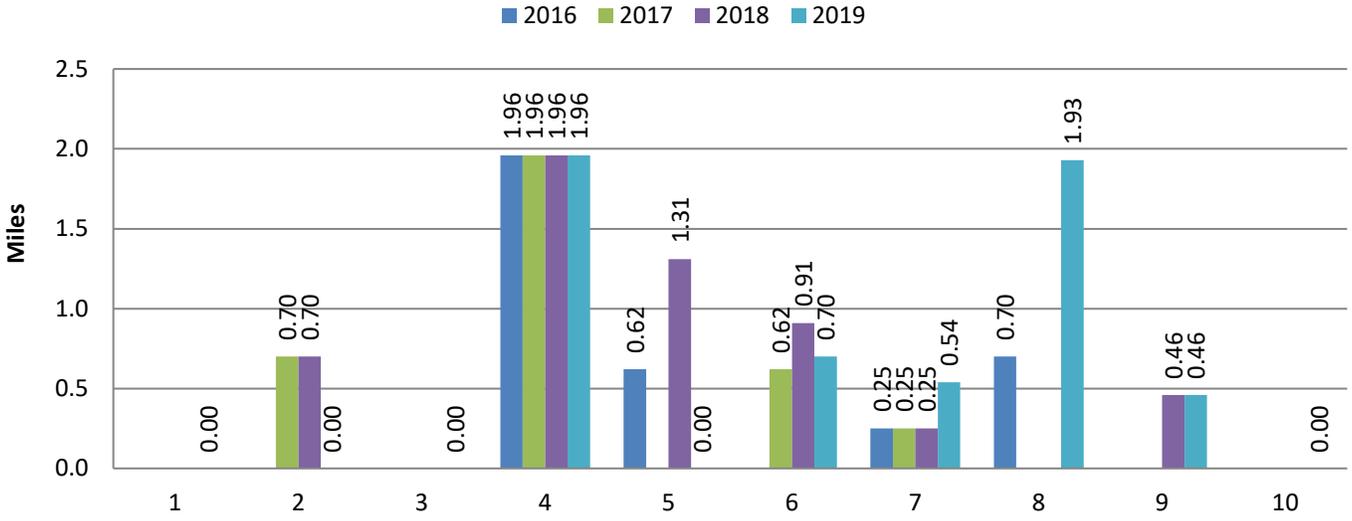
Road Rating	Existing Condition / Recommended Repair	Estimated Cost per Mile
10	No maintenance necessary. New Road	\$ 0
8 – 9	Good crown and drainage throughout. Adequate gravel for traffic. Maintain with grading and dust control.	\$ 500
6 - 7	Existing crown with drainage on 50% or more of roadway. Additional 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

Ellis Township Paved Local Road Ratings

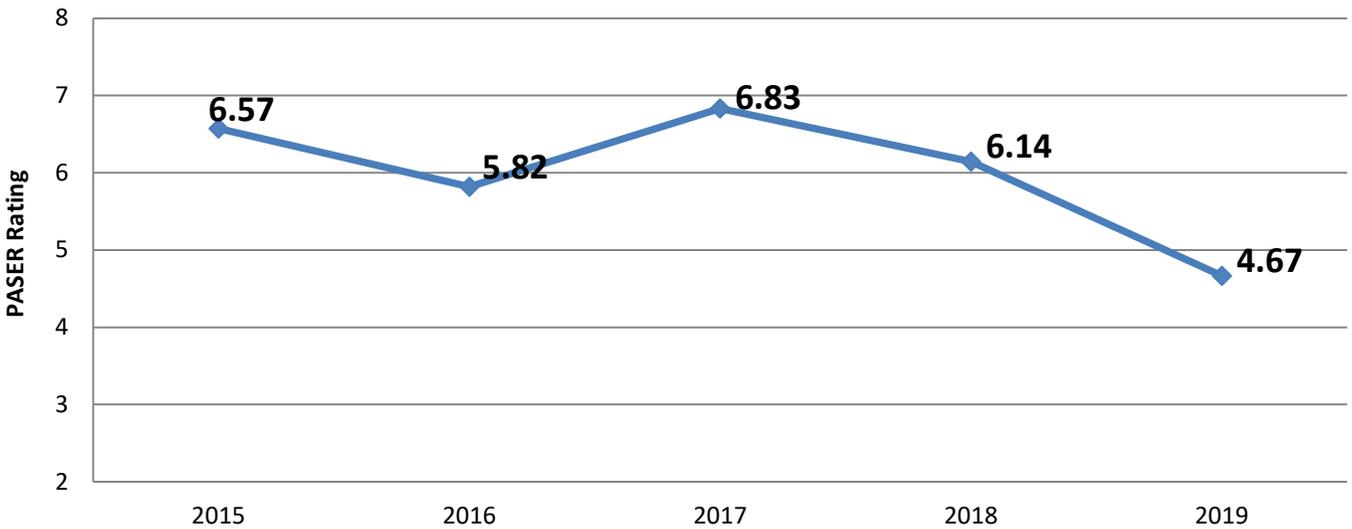
Current Road Ratings

PASER Rating	Road Name	Limits	Length (miles)
10			
9			
8			
7	Burdy Road	Change in Asphalt Pavement to start of Gravel.	1.96
6			
5	Burdy Road	Rondo Road to change in pavement.	0.70
4	Rondo Road Scott Road	Township Line to Scott Road. Straits Highway to end of pavement.	0.29 0.25
3	Pigeon River Road Rondo Road	Afton Road to Pigeon River Bridge. I-75 to Afton Road.	0.62 1.31
2	Rondo Road	Scott Road to I-75.	0.46
1			

2016 - 2019 PASER Ratings for Paved Local Roads



Average PASER Rating for Paved Local Roads

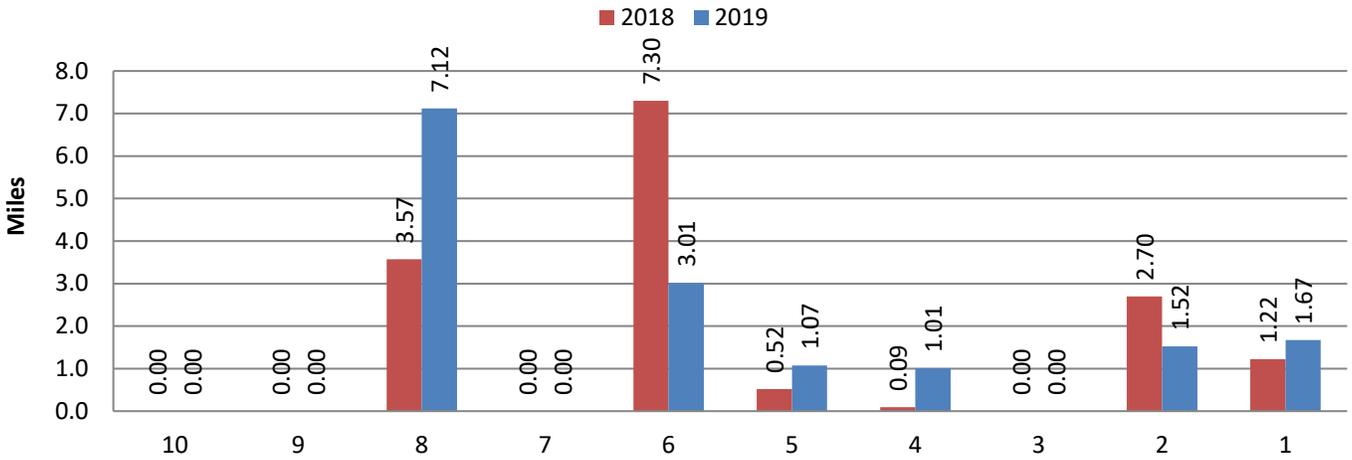


Ellis Township Gravel Local Road Ratings

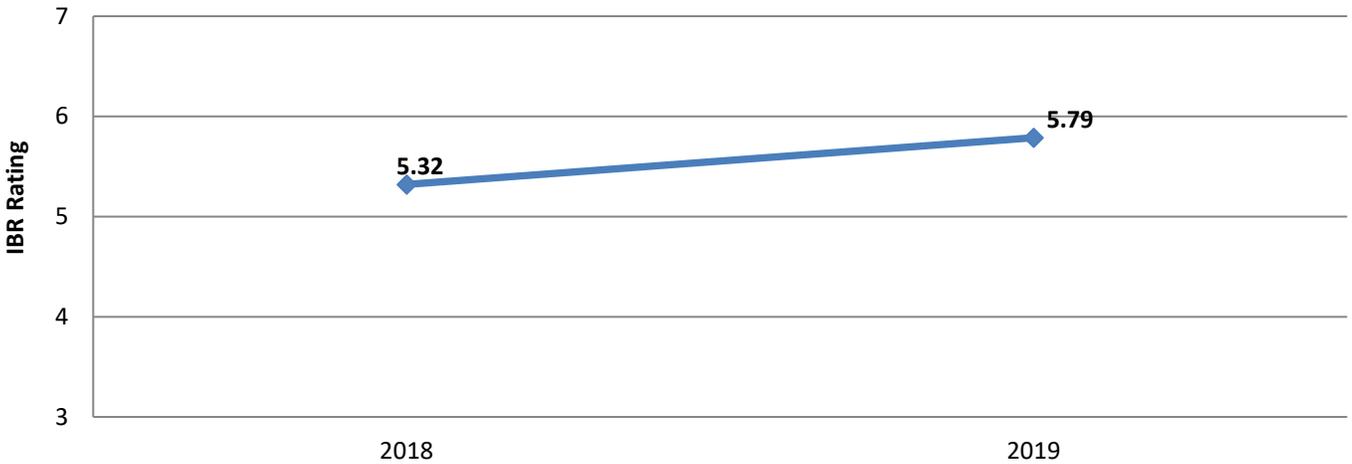
Current Road Ratings

IBR Rating	Road Name	Limits	Length (miles)
10			
9			
8	Beebe School Road Burdy Road Pigeon River Road Munger Road Scott Road	Afton Road to Frost Trail. Start of Gravel (south) to Township Line. Pigeon River Bridge to Township Line. Township Line then north to Pigeon River Road. Anther Road to Rondo Road.	0.51 1.81 0.33 3.06 1.41
7			
6	Beebe School Road Clarence Road Cutoff Road Haz Road Scott Road	Frost Trail to end of road. M-68 then south to end of road. M-68 to Afton Road. Afton Road then northerly to end of road. End of pavement to Anther Road.	0.24 0.35 1.49 0.58 0.35
5	Shooks Road	Afton Road then east 0.79 miles. Afton Road then west 0.28 miles.	0.79 0.28
4	Goose Lake Road Gravel Pit Road River Road	Crumley Creek Road to Hatch Road. Rondo Road then north 0.19 miles. Afton Road to end of road.	0.73 0.19 0.09
3			
2	Hatch Road	Burdy Road to Goose Lake Road.	1.52
1	Cannery Road Ford Road Shann Road Townhall Road	M-68 then south to end of road. Afton Road west to start of Seasonal Road. Afton Road then east to end of road. Township Line then north to start of seasonal. Afton Road then south to end of road.	0.07 0.62 0.53 0.33 0.12

2018 - 2019 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.