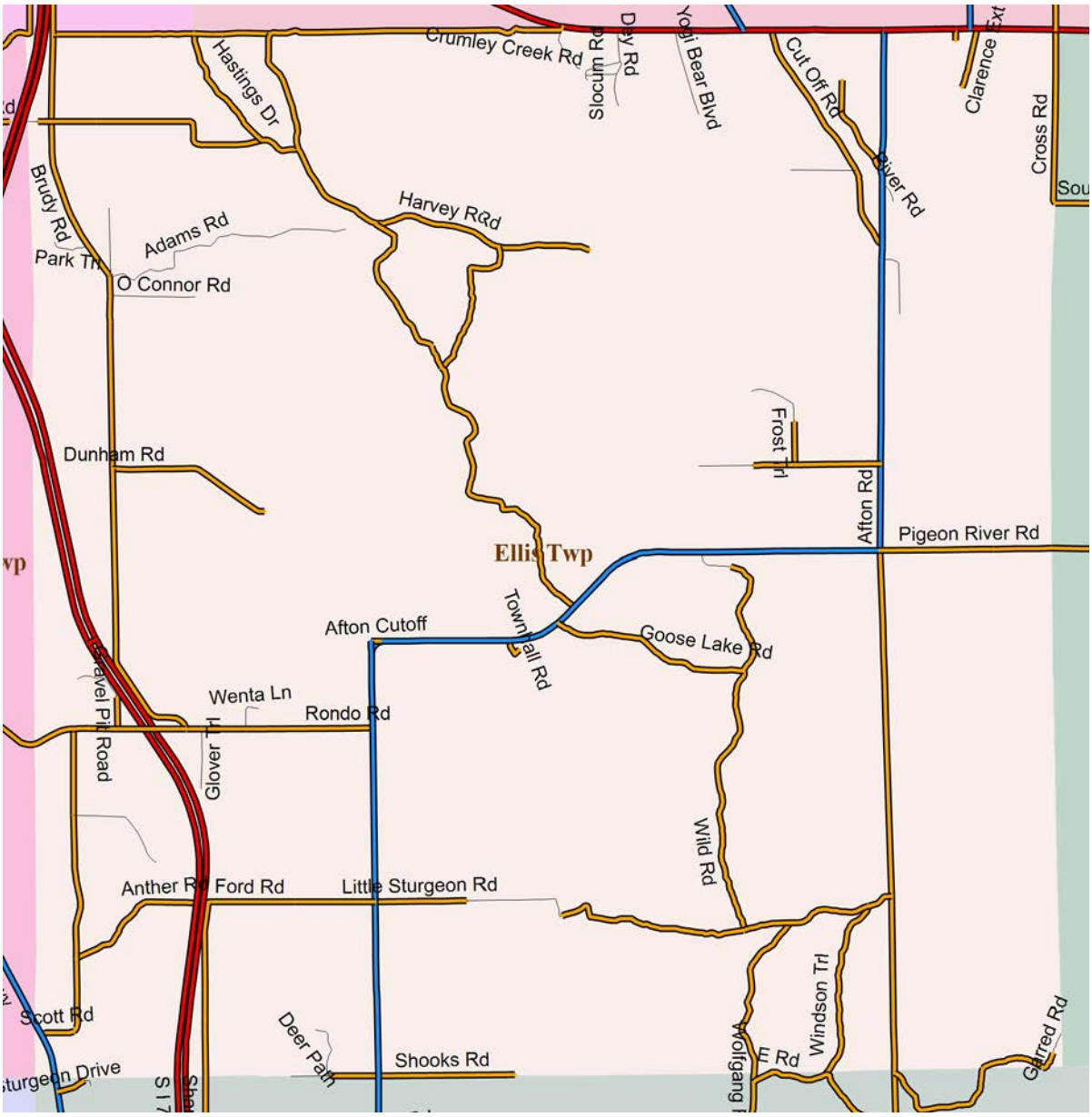
Cheboygan County Road Commission

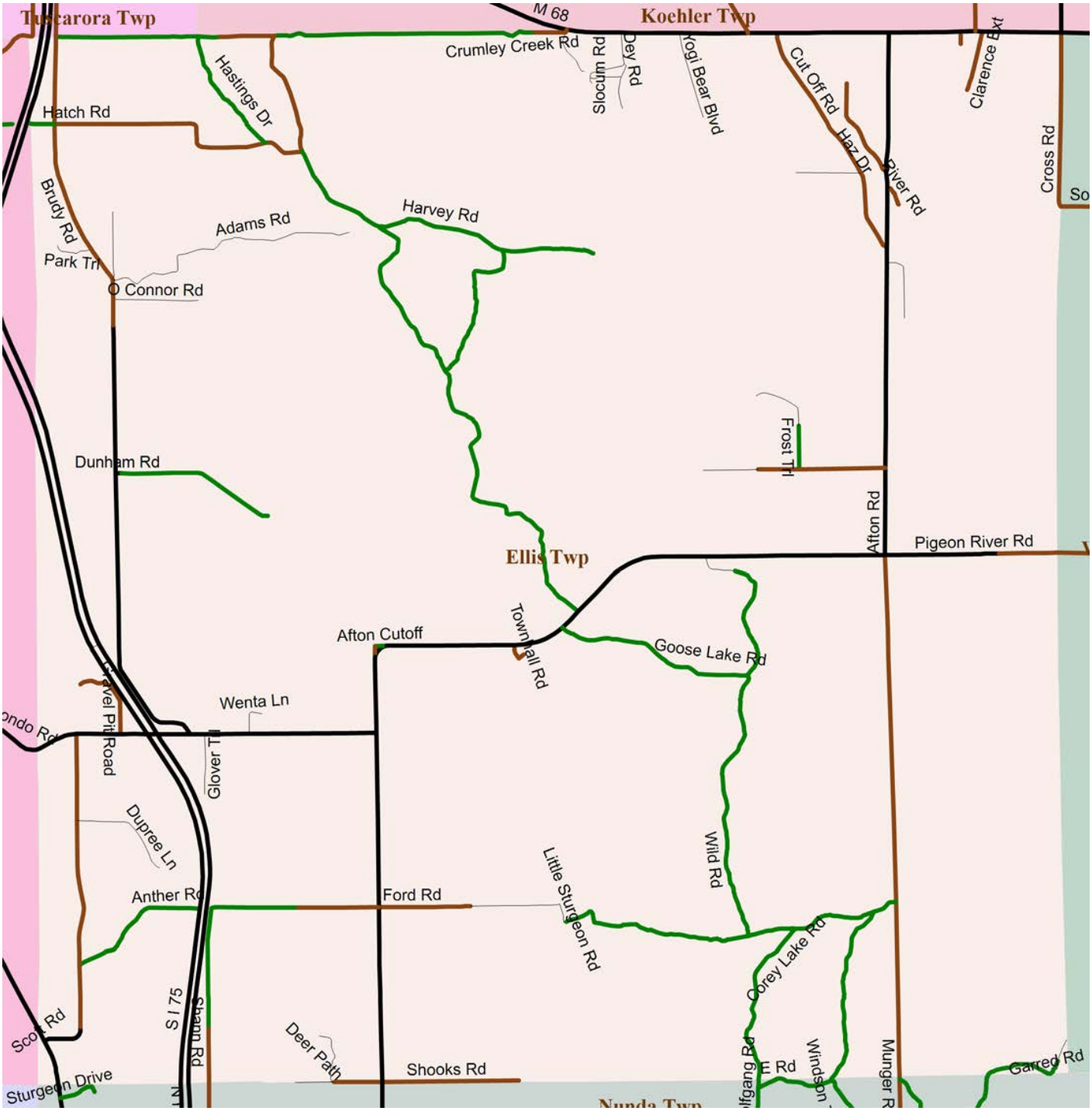
Ellis Township Local Road Ratings Report for 2019

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 Ultra-thin Asphalt Overlay	$ 29,000 $ 63,000
5	Asphalt Wedging Asphalt Wedging and Sealcoat Asphalt Wedging and Ultra-thin Asphalt Overlay	$ 47,000 $ 75,000 $ 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 or 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

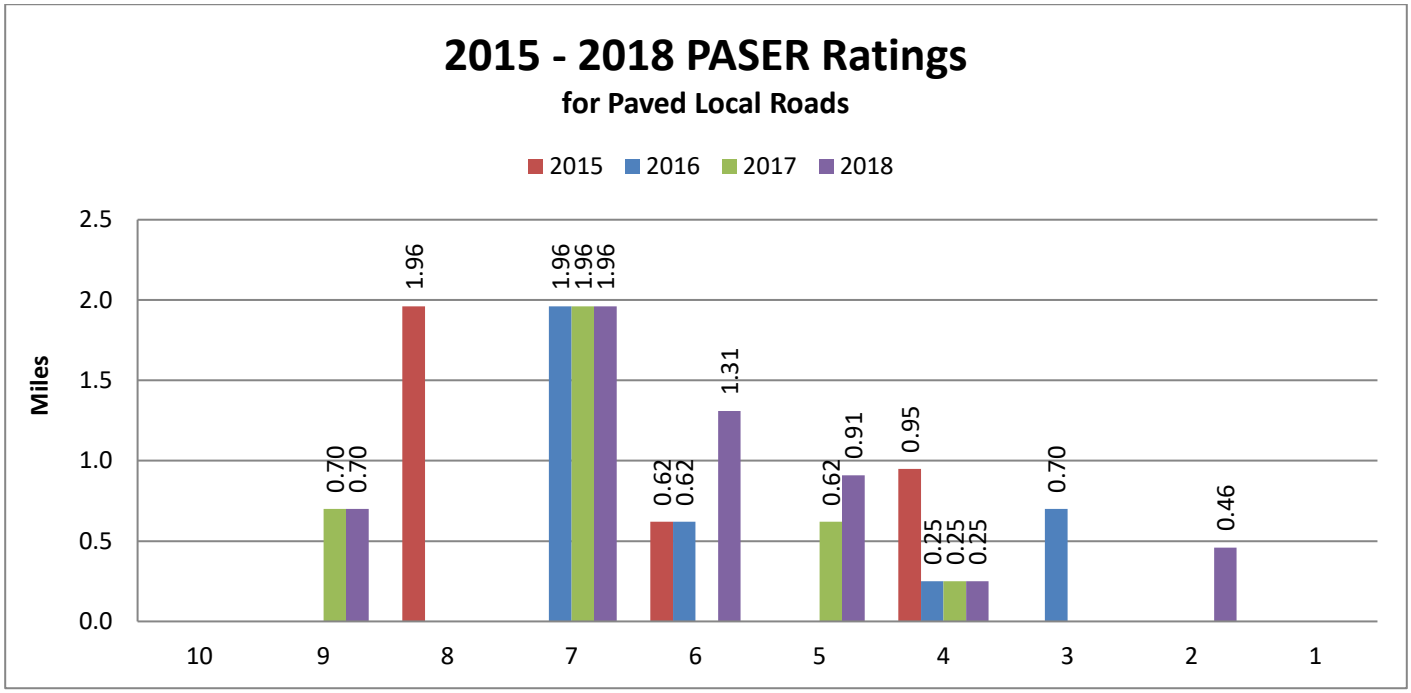
Current Road Ratings

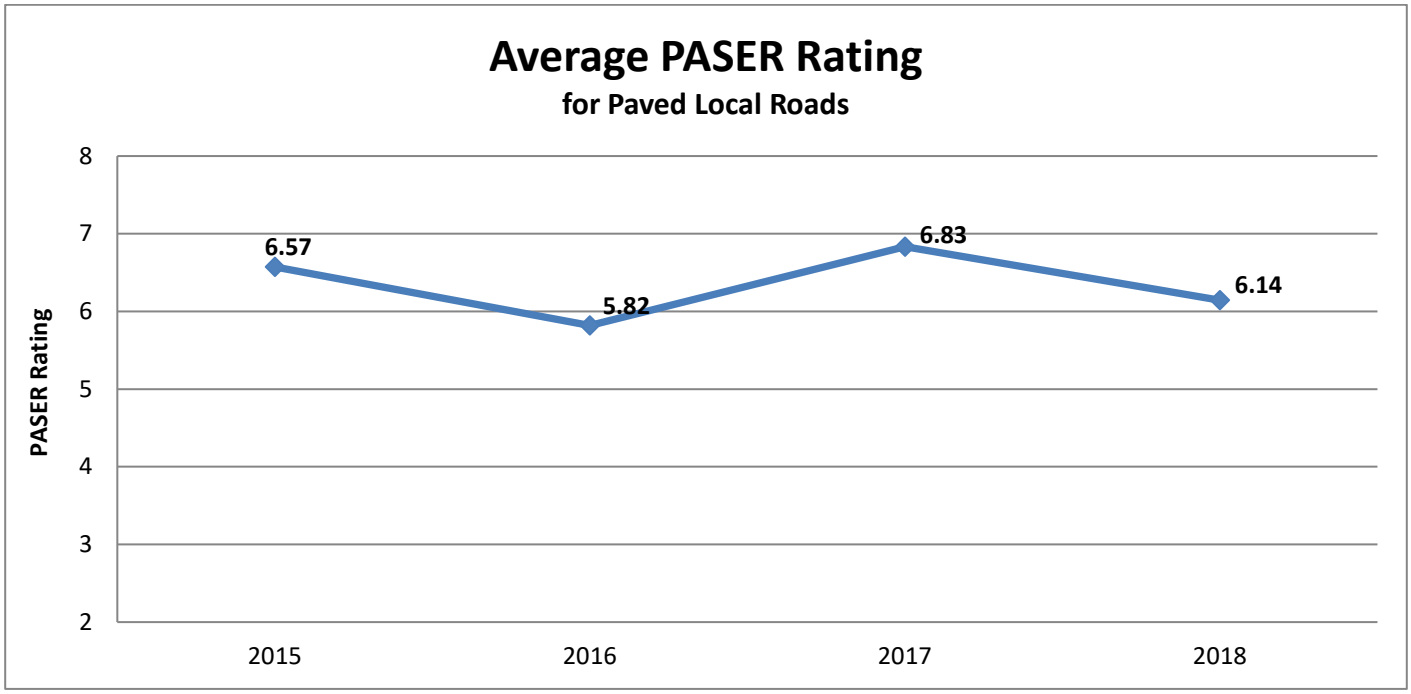
PASER Rating	Road Name	Limits	Length (miles)
10			
9	Burdy Road	Rondo Road to change in pavement.	0.70
8			
7	Burdy Road	Change in Asphalt Pavement to start of Gravel.	1.96
6	Rondo Road	I-75 to Afton Road.	1.31
5	Pigeon River Road Rondo Road	Afton Road to Pigeon River Bridge Township Line to Scott Road.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

2018 Average PASER Rating for Paved Local Roads 6.14

2017 Average 6.83

2016 Average 5.82



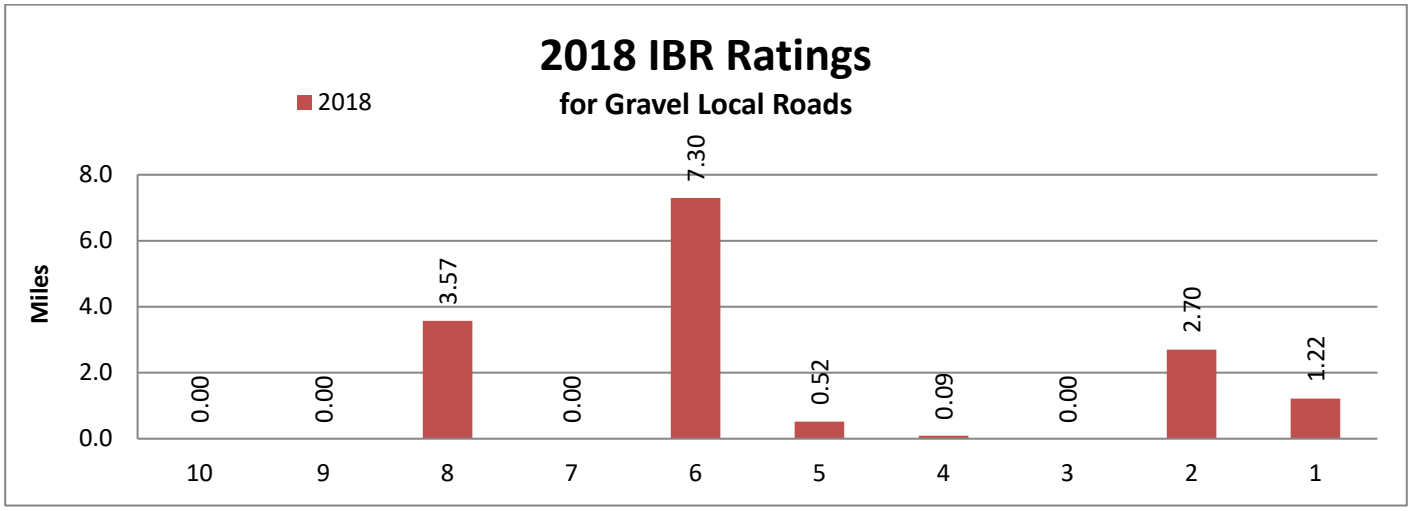

Average PASER Rating
for Paved Local Roads
PASER Rating
8
7
6
5
4
3
2
6.57
5.82
6.83
6.14
2015
2016
2017
2018

Ellis Township Gravel Local Road Ratings

Current Road Ratings

IBR Rating	Road Name	Limits	Length (miles)
10			
9			
8	Beebe School Road Munger Road	Afton Road to Frost Trail. Township Line then north to Pigeon River Road.	0.51 3.06
7			
6	Burdy Road Clarence Road Cutoff Road Gravel Pit Road Haz Road Pigeon River Road Scott Road Shooks Road	Start of Gravel (south) to Township Line. M-68 then south to end of road. M-68 to Afton Road. Rondo Road then north 0.19 miles. Afton Road then northerly to end of road. Pigeon River Bridge to Township Line. End of pavement then north to Rondo Road. Afton Road then east 0.79 miles.	1.81 0.35 1.49 0.19 0.58 0.33 1.76 0.79
5	Beebe School Road Shooks Road	Frost Trail to end of road. Afton Road then west 0.28 miles.	0.24 0.28
4	River Road	Afton Road to end of road.	0.09
3			
2	Goose Lake Road Hatch Road Shann Road Townhall Road	Crumley Creek Road to Hatch Road. Burdy Road to Goose Lake Road. Township Line then north to start of seasonal. Afton Road then south to end of road.	0.73 1.52 0.33 0.12
1	Cannery Road Ford 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.	0.07 0.62 0.53

Average IBR Rating for Gravel Local Roads 5.32



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	Ashpalt 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.