



Antrim County Road Commission
2016 Annual Report
to the
Antrim County Board of Commissioners

June 8, 2017

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Introduction

The Antrim County Road Commission (ACRC) maintains 210 miles of primary county roads and 663 miles of local county roads. Also, the Michigan Department of Transportation (MDOT) contracts with the ACRC to perform routine maintenance on 98 miles of state trunkline (M 32, M 66, M 88, US 31 and US 131). In the county system, approximately 700 miles are maintained year round; 556 miles are paved, 144 miles are gravel, leaving 173 miles of seasonal roads (not open to public travel for the months of November through April).

The ACRC's primary responsibility is to provide safe roads for the motoring public. As will be shown in detail in this report, we also work to make improvements where the townships desire to provide better roads for their constituents. In more recent years, townships are shifting money to preventive maintenance to preserve the investments they have made in these improvements. In an ideal world, there would be enough money provided to the ACRC through user fees so that the townships would not have to contribute to this preventive maintenance.

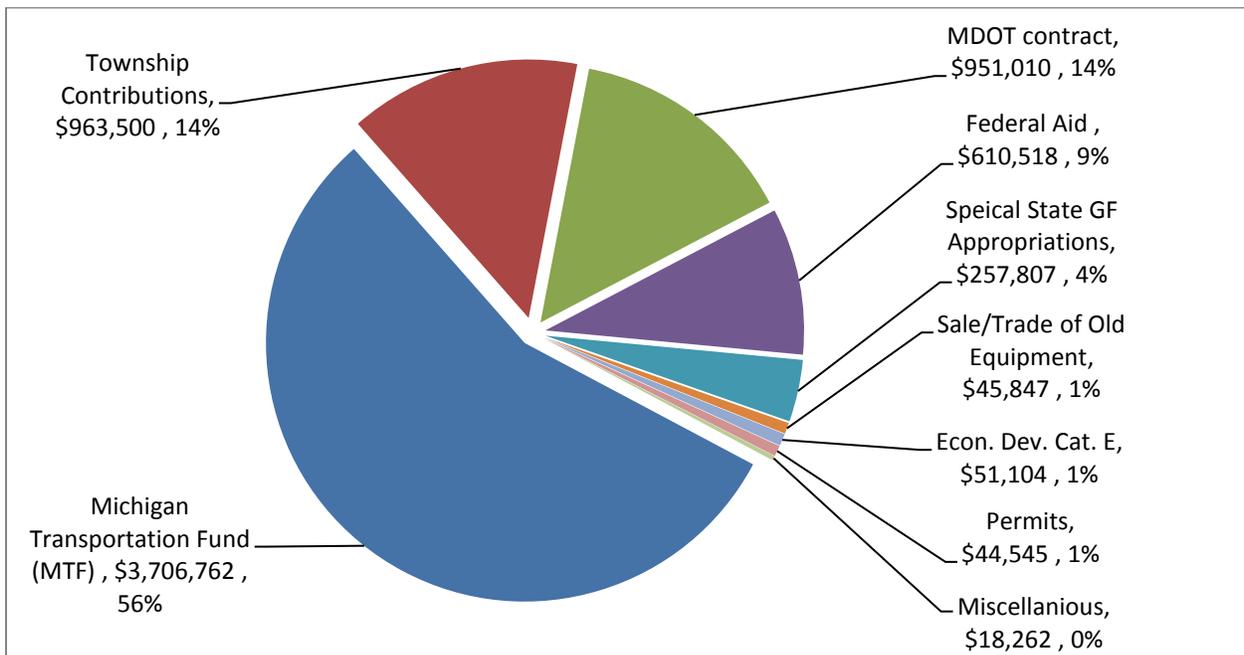
This report will expand on and discuss some of the major financial items that are reported through either audits or other mandated reporting. A short discussion on jobs completed during the year along with the current status and needs of our roads, equipment and facilities.

The revenue and expense information provided in the following pages can also be found in the Annual Financial Report that is filed with the MDOT as required by Act 51, Public Acts of 1951, as amended. This report is included as Appendix A. Also included in this report, as Appendix B, is the Basic Financial Statements for Year Ended December 31, 2016 (audit).

Revenues

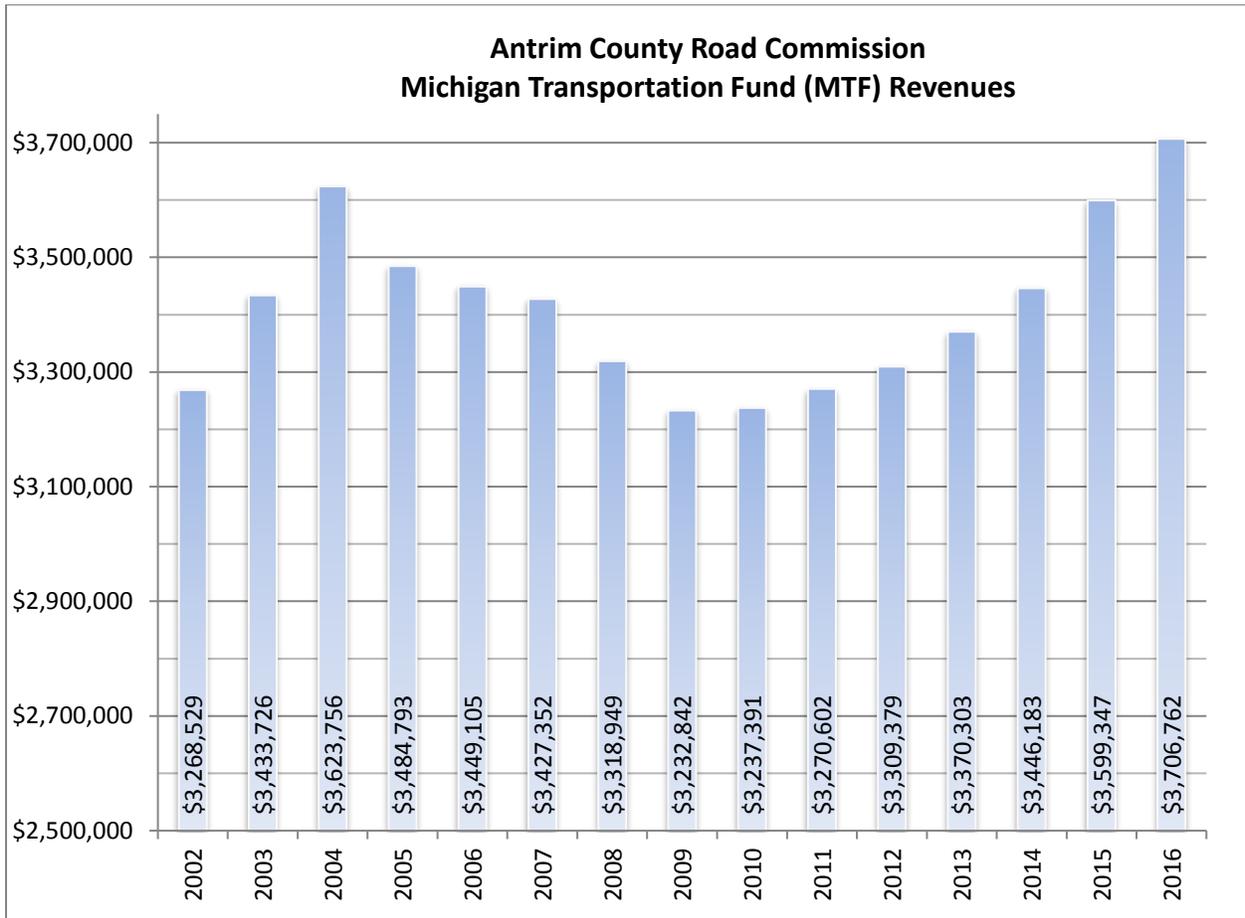
Total revenue received was \$6,649,355. The main source of revenue is the Michigan Transportation Fund (MTF) which is the primary fund used for all routine maintenance and operating expenses. Township contributions are the second largest source and amounted to 14% of the total. This was down almost \$858,000 from 2015, which happened to be the most in any year. The MDOT contract amounted to 14% of total revenue, up about \$250,000. Federal Aid was 9%, up just over \$200,000 from 2014 and can vary widely from year to year. The state appropriated funds from the general fund amounted to 4% of our revenues and is the last of this special appropriation. The revenues received in 2016 by the ACRC are shown in Chart 1 below.

Chart 1 – 2016 Revenues



The MTF is the primary source of funding for all road agencies in Michigan. Revenues from gasoline tax, diesel fuel tax and vehicle registration fees make up most of the MTF which totaled just over \$2.11 billion in 2016, up 3.1% from the previous year's collection. Chart 2 below shows MTF revenues received by the ACRC over the last 15 years.

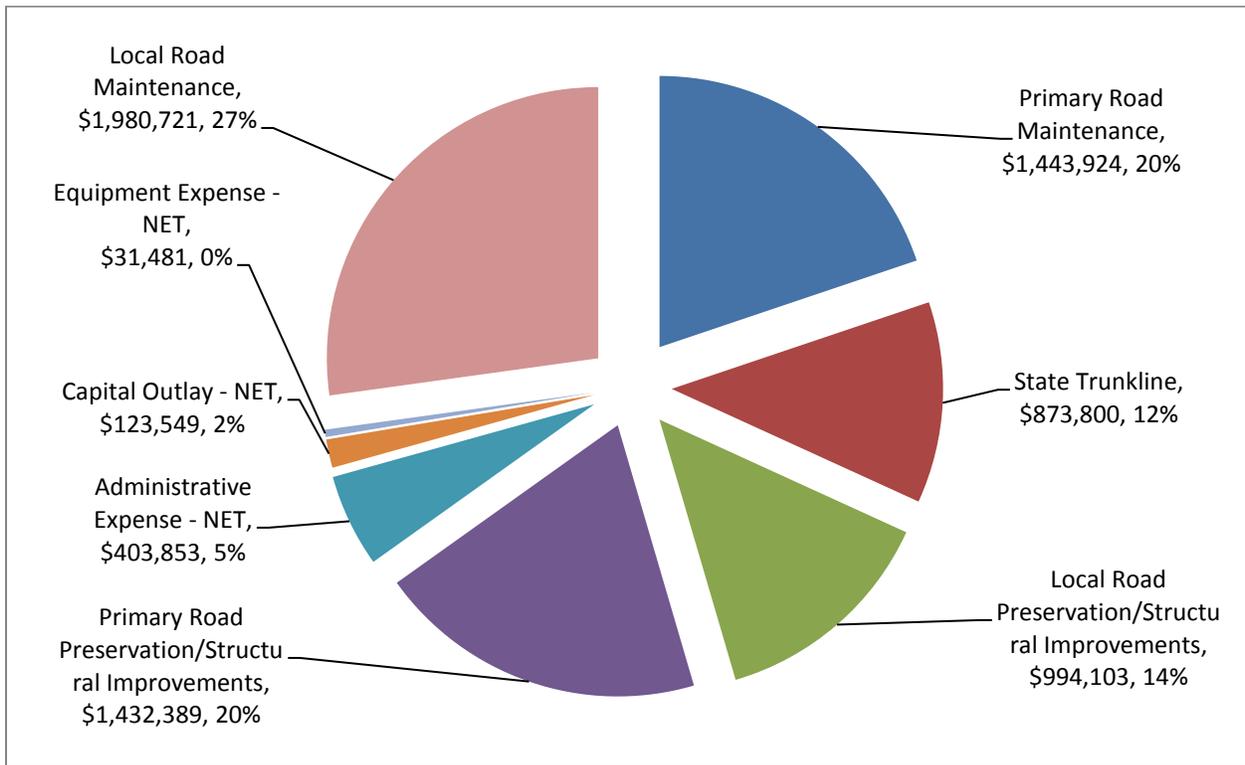
Chart 2 – Michigan Transportation Fund Revenues



Expenses

Total expenses for 2016 were \$7,283,820. Chart 3 shows the breakdown of major expense items.

Chart 3 – 2016 Major Expense Categories



Primary and Local Road Maintenance includes routine maintenance such as winter snow and ice control, pot hole patching, gravel road grading and dust control, roadside mowing, etc. Pavement preventive maintenance is included in this category and include such treatments as thin hot mix asphalt overlays, crack filling and chip sealing. Preservation/Structural Improvements include paving gravel roads, hot mix asphalt overlays thicker than one and one half inch, three inches or more of aggregate on a gravel road, etc.

Snow and ice control is one of the single largest expenses under the local and primary road maintenance expenditures and totals \$1,322,984 for calendar year 2016. This was up about \$360,000 from the previous calendar year.

State Trunkline

This item totaled \$873,800. The MDOT contracts with the ACRC for all routine maintenance needs on the state trunklines in the county. The majority of this work, like in the county road system, is winter maintenance. ACRC also provides patching, shoulder maintenance, tree and vegetation control and other routine or reactive work. All work is paid for monthly as incurred and is audited to actual cost after the fiscal year.

Road Projects

Township requested road projects completed in 2016 amounted to \$1,129,766. In accordance with current ACRC policy, funding for these projects is 10% ACRC and 90% townships when requested by a township. This is more typical and is down \$933,000 from 2015, which happens to be the largest year yet.

Projects that had township cooperation included 2.6 miles of chip seals, a pavement preventive treatment which prolongs the life of the road, 7.6 miles of resurfacing, 3.2 miles of gravel surfacing and just under one mile of paving gravel roads.

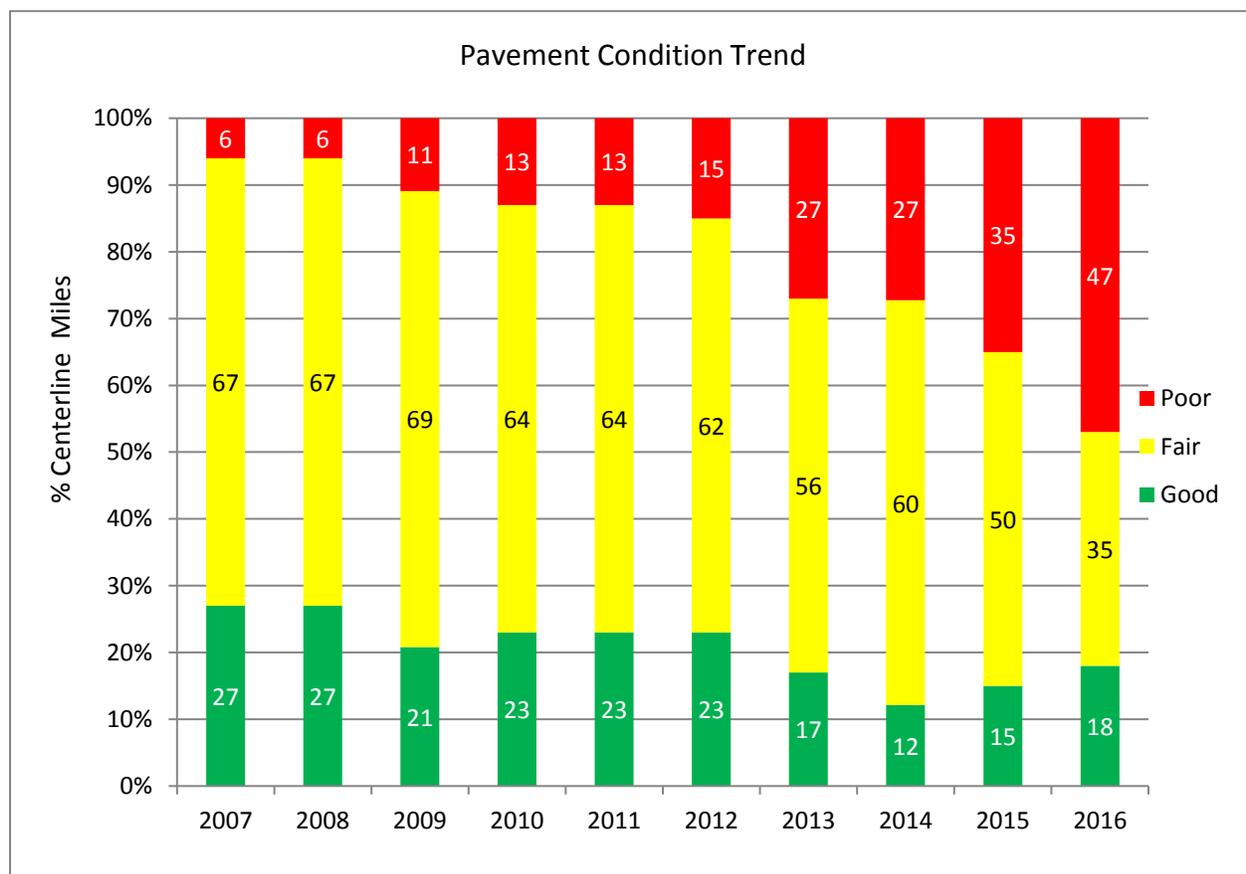
An additional \$610,518 of Federal funds were used to improve the remaining 4.6 miles of C 42 (Alba Hwy) with a required local match of \$162,290 funded by ACRC. Also, we partnered with the Charlevoix County Road Commission (CCRC) to combine both county's portions of Korthase Road into one contract that CCRC was putting together. This amounted to a savings of almost \$59,000 for a total cost of \$ \$243,000 for our portion.

County Road Pavement Conditions

The State of Michigan passed legislation that requires the use of an asset management system for public paved road maintenance. The Asset Management Council was established as a result of this legislation. Michigan is recognized nationally as leader in pavement asset management.

Since 2003 we have been evaluating and rating our Federal Aid eligible paved road system in Michigan. Since the start, the ACRC has been involved in this annual rating on the county primary roads and the state highway systems. Chart 6 shows the Federal Aid eligible county primary road pavement condition trends for the last 10 years.

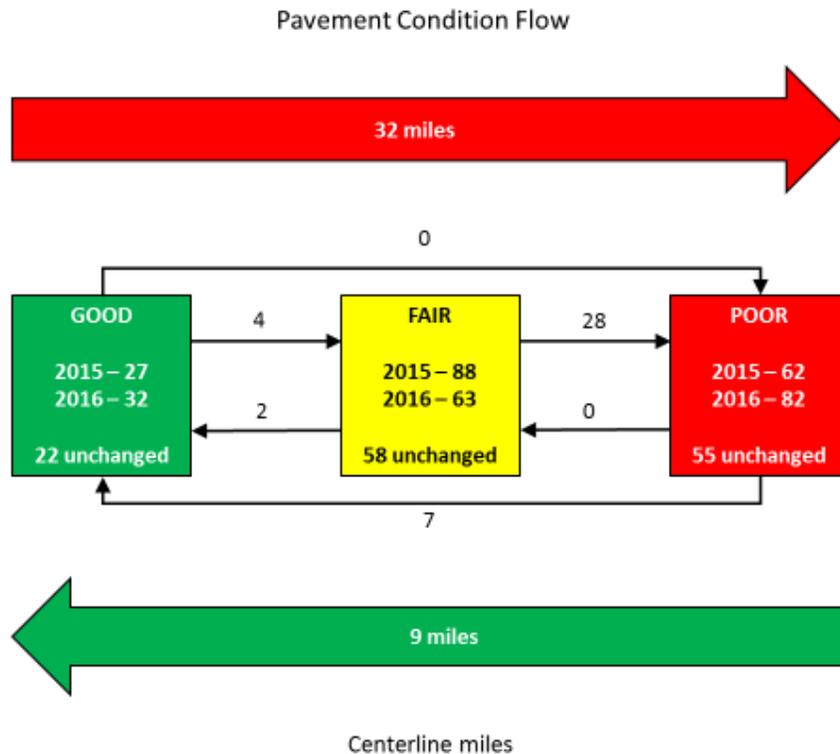
Chart 6 – Federal Aid Eligible Primary County Road Surface Condition Trend



This chart represents 178 centerline miles of primary road, being only the roads that are eligible for federal aid and therefore have been rated every year since 2003. There are 32 miles of primary road that are not federal aid eligible.

Chart 7 below shows the lane miles that have changed from each rating, good, fair or poor, to the next either up or down.

Chart 7 – Federal Aid Eligible Primary County Road Surface Condition Flow

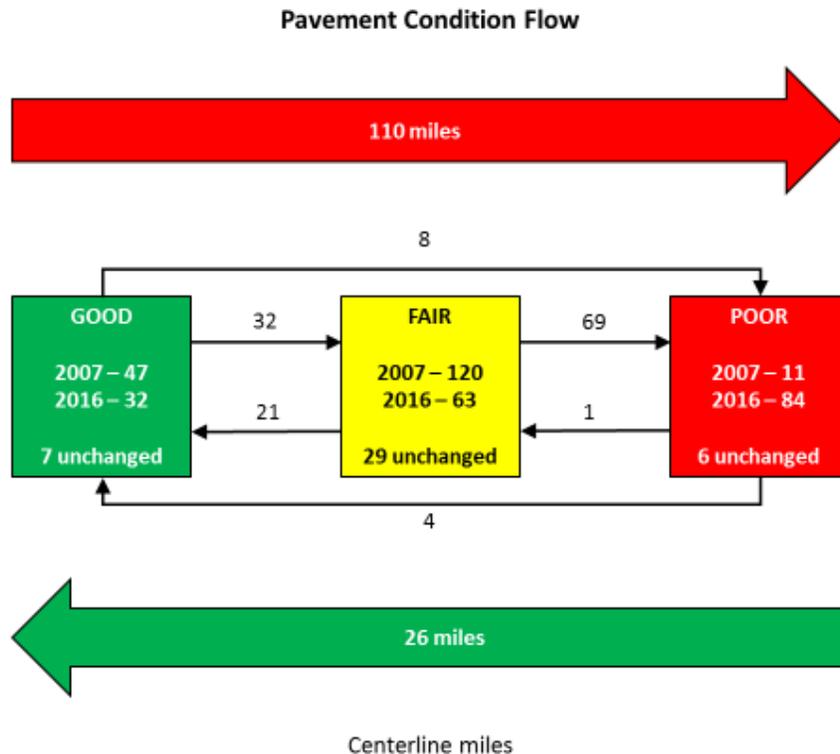


The large red arrow at the top shows the number of lane miles of roads that have dropped in condition between the years 2015 and 2016. About 32 centerline miles of roads have deteriorated, compared to 23 the year prior, while we have only upgraded less than 10 centerline miles, as shown by the large green arrow at the bottom. The smaller arrows show the exact changes from the different condition ratings.

The net change in pavement condition was a deterioration of almost 22 centerline miles even after an investment of over \$2.4 million. Chart 6 shows the rate of deterioration of our roads continues to increase as has been predicted over the last several years.

Chart 8 below is similar to Chart 7 except this compares the flow of conditions from 2007 through 2016.

Chart 8 – Federal Aid Eligible Primary County Road Surface Condition Flow Past 10 years



Over the last 10 years we have only been able to improve about 26 miles of roads while 110 miles have deteriorated. Note that this chart is only Federal aid eligible county roads and does not include local county roads.

All local and non-Federal aid eligible paved county roads were rated in 2010 and again in 2016. Chart 9 below shows the trend of the pavement conditions in that six year span. Although we see a significant amount of deterioration, we have been able to reduce the percentage of poor pavements. This is attributable to the investments made by the townships. However, the overall trend is a net deterioration and Chart 10 shows this is almost 79 miles.

Chart 9 – Non-Federal Aid Eligible County Road Surface Condition Trend

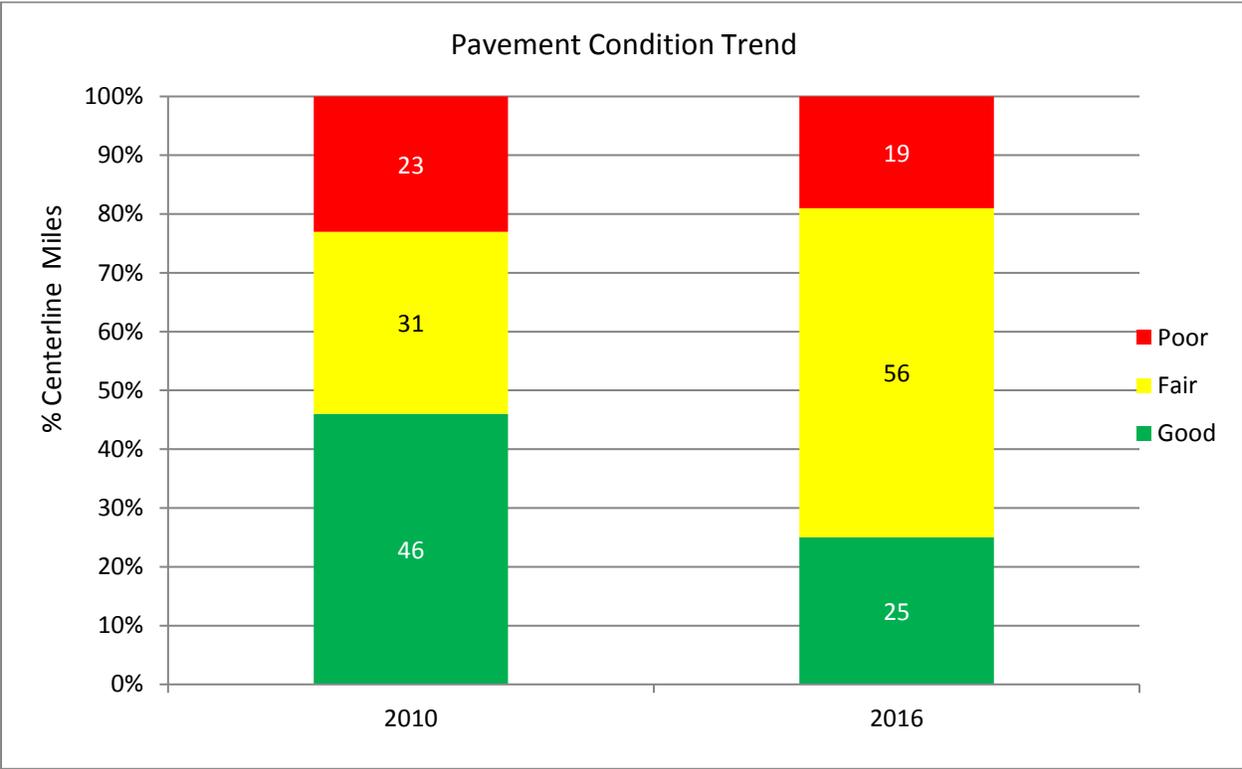
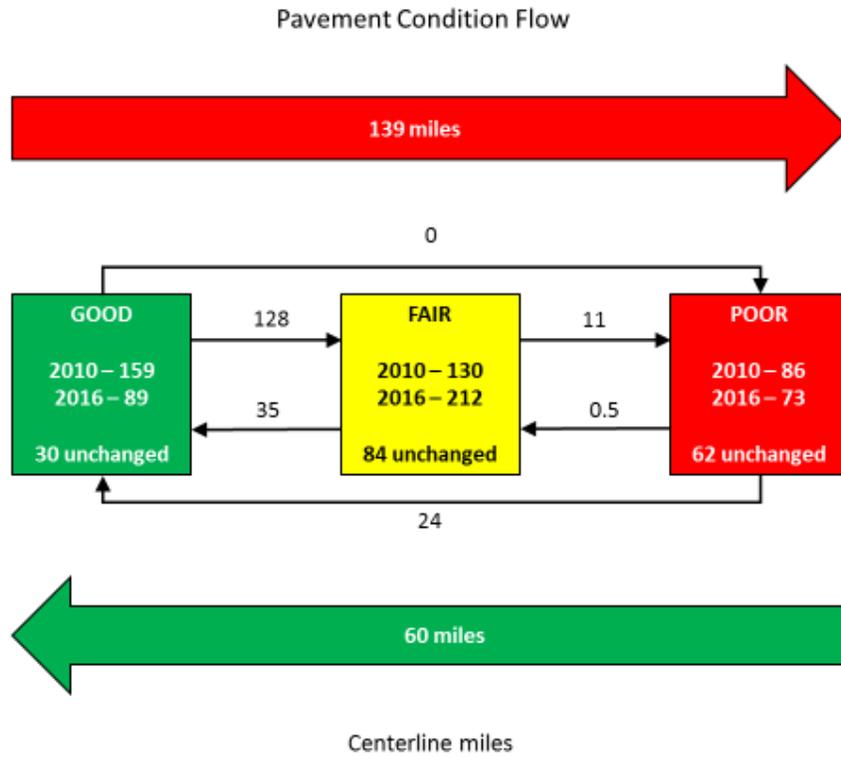


Chart 10 – Non-Federal Aid Eligible County Road Surface Condition Flow

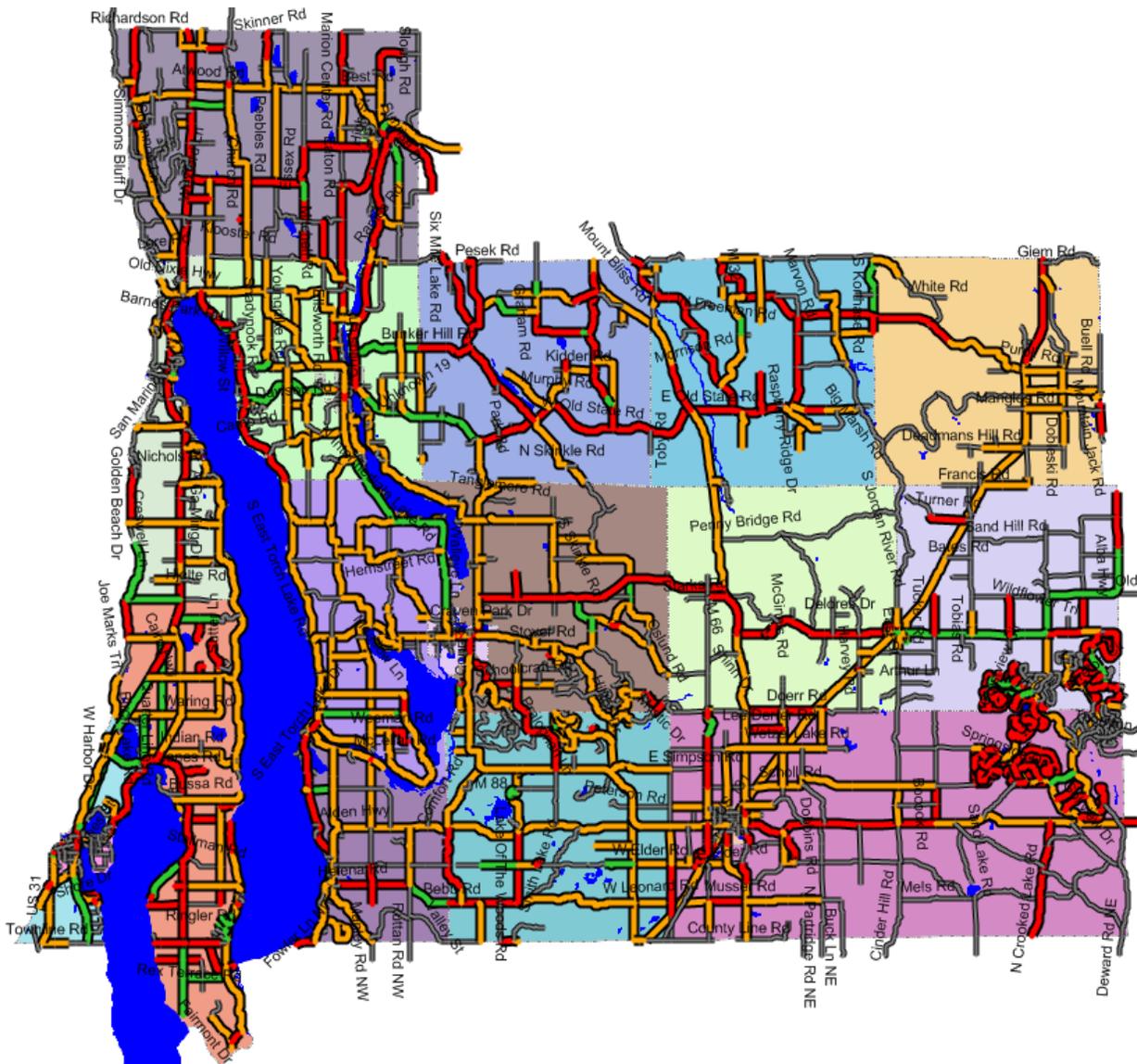


County Road Needs

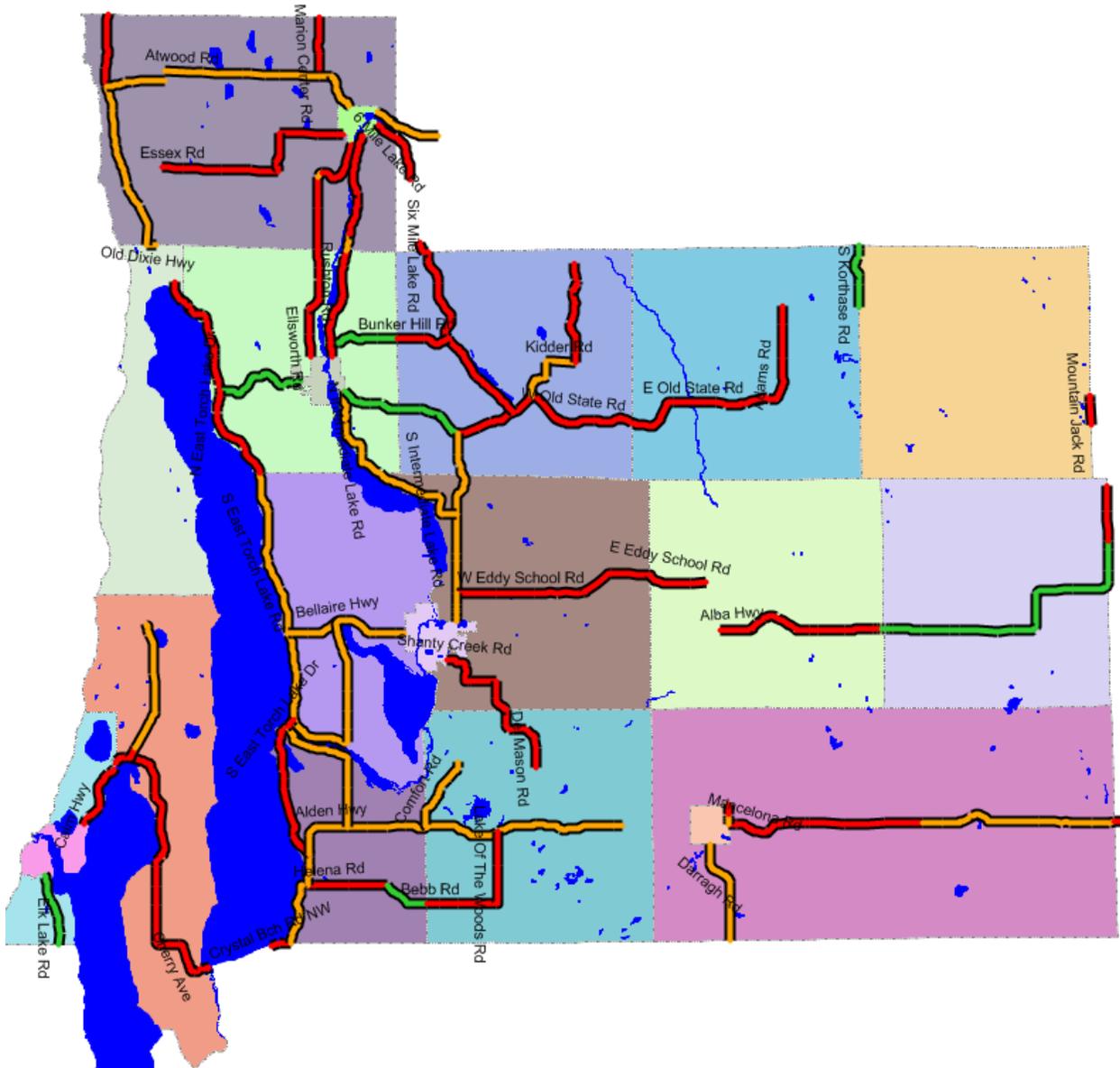


The estimate of needed work on the paved county road system was recently updated and is now over \$47 million. This list of needed work is included in this report as Appendix A. This does not address the needs on the gravel and seasonal roads.

The map below shows the condition of all county roads including those that are federal aid eligible. The green roads are good, yellow is fair and red is poor. This map includes the last rating entered on all paved roads. It is readily apparent the abundance of red, or poor condition.



The map below shows the current condition of federal aid paved roads only. These correlate to the data depicted in Charts 6 and 7.



Equipment

Two tandem axle plow trucks were purchased at a total cost of about \$463,000. An excavator was replaced for \$239,000 along with one front end loader for \$138,000, both prices after trade in.

Facility Needs

The ACRC maintains garages in Mancelona, Central Lake and Kewadin. The administration offices are located at the main garage in Mancelona.

There continues to be a need to replace the truck storage garage in Central Lake where the original building was built in 1940. The current estimate is over \$1 million. There is no definite schedule for this replacement.

All other facilities are in good shape and we continue to perform routine maintenance to keep them in good shape.

Staff

As in previous years, the ACRC employs 34 full time people, 23 truck drivers and equipment operators and three mechanics. This is the minimum efficient winter maintenance crew. There is need for more employees at different times throughout the year and we do supplement with temporary employees mainly during winter.

Future Funding

Legislation enacted in 2015 has increased gasoline and diesel fuel taxes along with vehicle registration fees beginning January 1, 2017. This is estimated to increase road funding by approximately \$600 million at the state level. Antrim County will benefit from this. This same legislation also requires that appropriations from the state general fund be made beginning state fiscal year 2018-2019 and every year after. It will begin with \$150 million the first year, \$325 million the second year, \$600 million the third year and every year after.

There are concerns by many that when the legislature budgets for FY 18-19 and beyond, there will be so many demands on the state general fund that there will be little, if any, left for transportation. It is now more important than ever before that we contact our Senator and Representative and tell them that they must fund roads as promised by the legislature in 2015.

Once we complete calendar year 2021, ACRC should be receiving an additional \$2 million in MTF revenue, provided the legislature appropriates the mandated general fund money. This is encouraging news, however, with a current \$47 million need on paved roads in Antrim County, \$2 million is a drop in the bucket. We anticipate the condition of our county roads will continue to deteriorate over the next several years in spite of this increase in revenues.

Appendix A

Paved Road Needs

Primary County Roads

Not listed in any priority

Route	Termini	Township	Construction	Length	Estimated Cost
C 48 Atwood Rd	US 31 to Village of Ellsworth	Banks	chip seal	5.2	\$208,800
593 Cherry Ave	Cairn Hwy to Torch River	Milton	overlay	7.0	\$1,190,000
593 E Torch Lake Dr	M 88 to CL/FH Twp line	Torch Lake & Central Lake	wedge and overlay	6.0	\$1,020,000
593 E Torch Lake Dr	Twp line to Clam River	Forest Home	chip seal	7.0	\$245,000
593 E Torch Lake Dr	Alden Hwy to Clam River	Helena	reconstruct	3.8	\$1,140,000
620 Alba Hwy	M 66 to US 131	Chestonia	reconstruct	4.4	\$1,496,000
620 Eddy School Rd	Derenzy to M 66	Kearney & Chestonia	reconstruct	6.7	\$2,680,000
624 Old State / Adams Rd	M 66 to M 32	Jordan	reconstruct	5.1	\$2,040,000
624 Old State Rd	Derenzy to M 66	Echo & Jordan	reconstruct	12.4	\$4,216,000
Essex Rd	US 31 to Village of Ellsworth	Banks	reconstruct	5.7	\$2,280,000
Old Dixie Hwy	US 31 to county line	Banks	chip seal	6.4	\$224,000
Rex Beach Rd	US 31 to Old Dixie	Banks	overlay	1.5	\$180,000
Rushton Rd	Vill of CL to Vill of Ellsworth	Banks & Central Lake	overlay	6.0	\$720,000
Intermediate Lake Dr	Old State to Derenzy	Central Lake & Kearney	overlay	5.2	\$702,000
Bebb Rd	Twp line to Lake of the Woods	Custer	wedge and overlay	2.2	\$264,000
Lake of the Woods Rd	Helena to 618	Custer	wedge and overlay	1.9	\$228,000
Shanty Creek/Batchelder/Del Mason	M 88 to M 88	Custer & Kearney	overlay	4.7	\$799,000
Bunker Hill Rd	Muckle to Six Mile Lk	Echo	wedge and overlay	1.4	\$238,000
Dingman School Rd	Six Mile Lk to county line	Echo	overlay or wedge/seal	1.9	\$228,000
Kidder Rd	M 66 to Finkton	Echo	reconstruct	2.7	\$918,000
Kidder Rd	Finkton to Old State	Echo	chip seal	1.9	\$76,000
Six Mile Lake Rd	624 to county line	Echo	overlay	5.4	\$648,000
Mount Bliss Rd	County line to 624	Echo & Jordan	overlay	5.4	\$729,000
Derenzy Rd	620 to 624	Echo & Kearney	overlay	4.3	\$722,500
Elk Lake Rd	US 31 to county line	Elk Rapids	chip seal	2.0	\$70,000
Helena Rd	593 to McPherson	Helena	wedge and overlay	2.0	\$240,000
N East Limits St	Ski Run to Valley	Mancelona	chip seal	0.3	\$10,500
West Limits	M 88 to US 131	Mancelona	reconstruct	0.7	\$210,000
Cairn Hwy	US 31 to Quarterline	Milton	chip seal	3.3	\$115,500
Indian Rd	Cairn Hwy to WTLD	Milton	chip seal	2.7	\$94,500
Barnes Rd	US 31 to WTLD	Torch Lake	chip seal	0.9	\$31,500
W Torch Lake Dr	Barnes to Indian	Torch Lake & Milton	chip seal	7.8	\$273,000
TOTAL				128.7	\$24,237,300

Federal Aid Scheduled Projects

Route	Construction	Estimated Cost	Federal & EDF D	Length	Local Match
C 65 Ellsworth Rd - 2017	chip seal	\$306,250	\$306,250	6.3	\$0
571 Darraugh Rd - 2017	chip seal	\$143,750	\$143,750	2.8	\$0
Cairn Hwy - 2017	chip seal	\$135,015	\$135,015	2.6	\$0
Pavement marking - 2017		\$127,000	\$127,000		\$0
C 65 Marion Center Rd - 2018	reconstruct	\$500,000	\$500,000	1.5	\$0
Pavement marking - 2019		\$125,000	\$125,000		\$0
C 38 Mancelona Rd - 2021	mill & overlay	\$1,530,000	\$862,360	10.2	\$667,640
TOTAL		\$2,867,015	\$2,199,375	23.4	\$667,640

Local County Roads

Construction	Typical PASER Rating	Length	Estimated Cost
crack fill	7	102	\$459,000
chip seal with crack fill	6 - 5	75	\$2,512,500
hot mix asphalt (HMA) wedge and chip seal or 1 1/2" HMA overlay	5 - 4	17	\$1,445,000
HMA wedge and 1 1/2" HMA overlay or 2" HMA overlay	4 - 3	7	\$840,000
Crush and shape, 2" HMA paving	3 - 2	6	\$870,000
reconstruct	2 - 1	54	\$16,200,000
TOTAL		261	\$22,326,500

GRAND TOTAL \$47,231,440

Costs are estimates based on current surface rating and construction costs. Underlying base problems could result in higher project costs.
Revised March 2017

Appendix B
Annual Financial Report for 2016
(Act 51 Report)

In separate PDF file.

Appendix C
Basic Financial Statements for 2016
(Audit)

In separate PDF file.