



JAMES (JIM) A. WIECHART, P.E., P.S.

~Mercer County Engineer~ REPORT FOR 2022

The primary mission of the Mercer County Engineer is to serve the citizens of Mercer County with safe, superior rural local transportation and drainage systems. The Mercer County Engineer will complete this mission through the building, maintaining and managing of these rural infrastructure assets in an efficient & cost-effective manner in coordination with other local, state and federal partners.

I recently took a telephone call from a software vendor out of Vancouver B.C. who was selling pothole inventory-pavement inspection-maintenance software. In his effort to market his product to me, the vendor was touting the pothole maintenance attributes of the software as a way to manage those issues. He was very taken aback when I shared with him that we do not have a pothole problem on our system of roads. I elaborated on our 385 miles of roads, we have been able to keep our pavement conditions at a level where potholes are not a problem (but for very isolated and infrequent cases). He was amazed by this and this largely concluded his sales pitch. Many times, I have focused so much on the large capital improvements we undertake and I neglect to recognize the significant, substantial & beneficial pavement maintenance activities we/and or our contractors complete. These efforts have been decades of continual work and we have in the past, and have to continue to keep some focus on this as our challenge of huge vehicles on rural local roads in our vibrant ag & small commercial economy speeds along. It's a credit to our employees who continually bring up the hugely critical maintenance component of what we have to do. Sometimes the boss can get too focused on the big projects when the sum of the little ones is just as important.

2022 was my 20th year of having the privilege of serving Mercer County as County Engineer and it was another great year of moving the ball forward with so many improvements to our rural infrastructure. Often times, my staff & I get very frustrated with the bureaucratic entanglements & inefficiencies that exist in many of the state and federal grant programs. As I often convey to people, until the cost of cutting through the red tape is more than the benefits of a particular program, we will continue to stay engaged in these programs with the pursuit of finding any funding source under any rock(s) we can find to make our county better. Detailed in this report are those efforts. Thanks for the many supporters we have had throughout these years that help us achieve the elements of our mission! I can't say enough how our employees innovate & solidly approach every challenge to complete our mission.

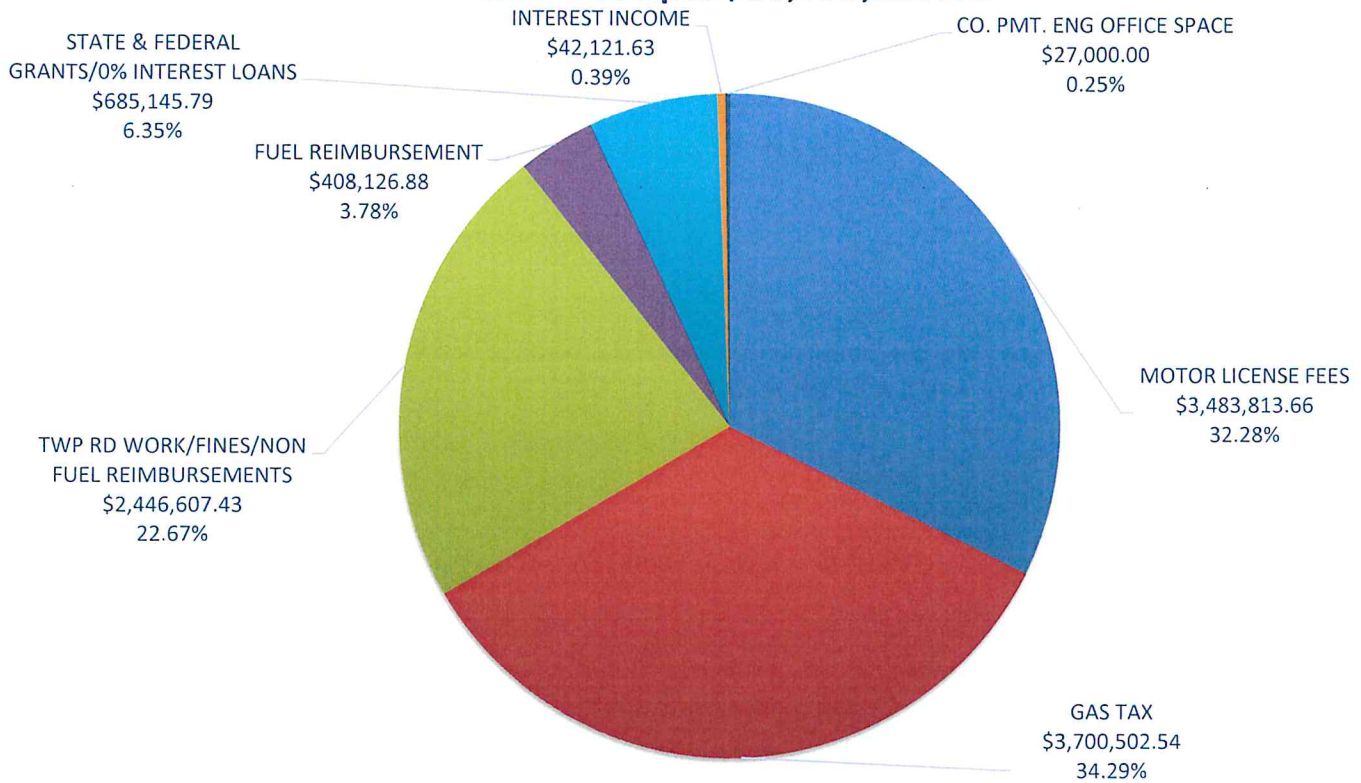
There are 2 main focus areas of increased improvement projects this office has & expects to continue with over the next several decades. There is a large need in both of these areas and over the last several years, we have placed more attention and resources towards them and we are seeing the positive results:

1. *Improvements to our ORC 6137 ditch/tile maintenance infrastructure responsibilities as well as*
2. *Roadway shoulder, clear zone, side ditch layover widening activities*

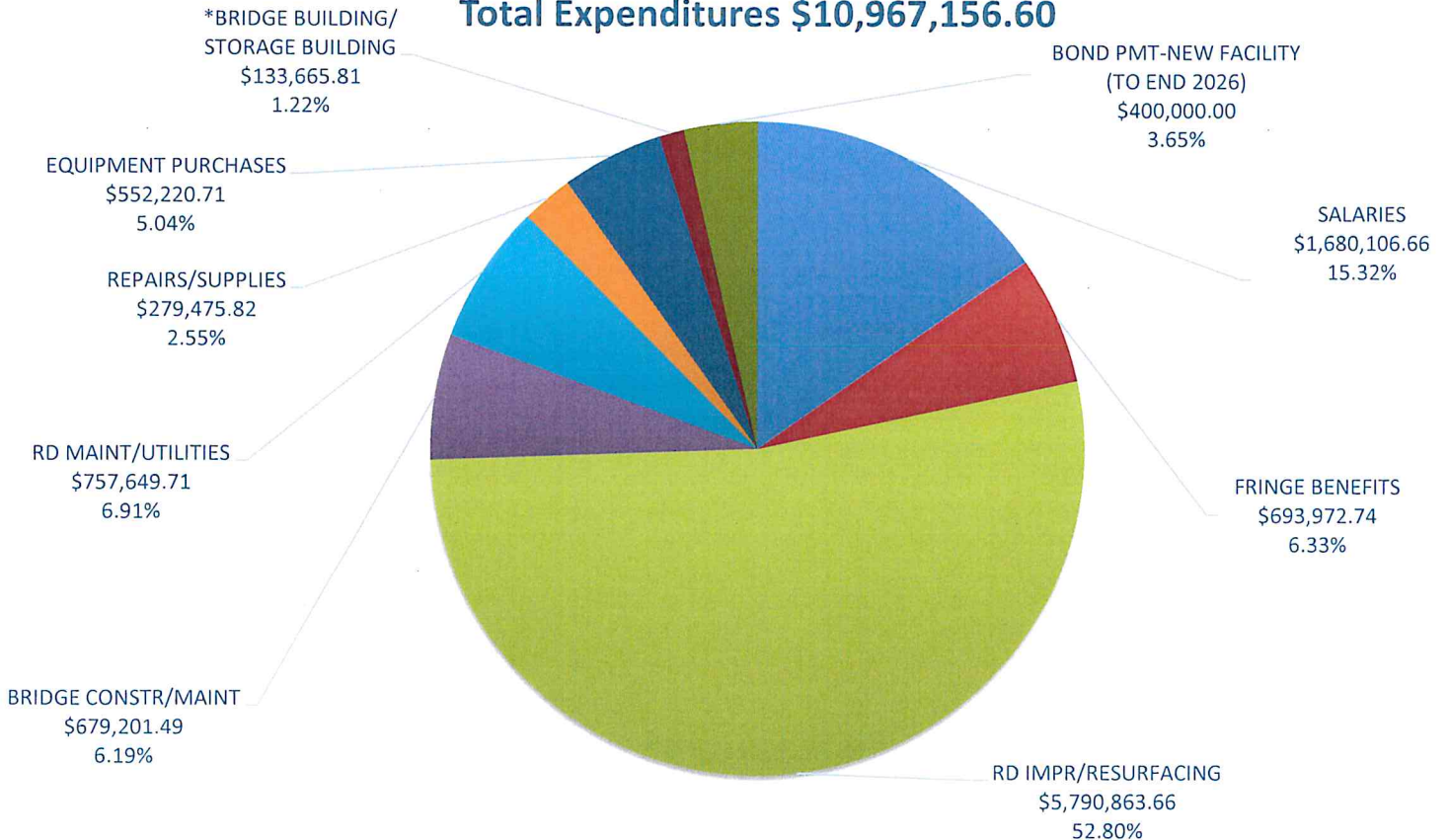
In particular, as it relates to #2; it is critical to have the R-O-W necessary to do these improvements. Further, when publicly-minded forward-thinking landowners are willing to donate extra R-O-W on a voluntary basis, this extra room adjoining the R-O-W allows us to widen roadways and allows us to make those improvements to that area of the county far sooner than what we would have otherwise been able. We were fortunate to have this occur recently on a section of Township Line Road from St. Anthony Road to SR 29. Some of the landowners along this roadway donated the needed right-of-way to make improvements to the road. In our work plans for 2023 or 2024, our crews and/or contractors will begin shoulder widening work on this section of roadway.

Thus, pursuant to the requirement in the Ohio Revised Code, an annual report must be made to the Board of County Commissioners summarizing the activities and accomplishments for the year. Please read and accept this report detailing our activities conducted in 2022.

Total Receipts \$10,793,317.93



Total Expenditures \$10,967,156.60



Note: Carryover monies, grants and 0% interest loans make up the difference between revenue and expenditures.

EQUIPMENT PURCHASES

The following is a list of the purchases over \$5000 during 2022.

2022 HV607 6x4 Cab & Chassis (#16)	\$98,123.19
2021 Centennial 3,500 gallon distributor body for #16 (trade in #50-\$55,000)	\$75,093.60
Trailer Mounted Spray Injection Patcher (2T) (trade in 1T-\$5,500)	\$57,910.00
2022 Etnyre Chip Spreader w/variable width head 10'-20' (#4R)	\$291,369.00
Gledhill 12' Power Reversible Snow Plow for #17	\$14,900.00
	\$537,395.79

FULL ASPHALTIC CONCRETE RESURFACING

<u>ROAD NAME</u>	<u>WIDTH</u>	<u>LENGTH (MILES)</u>	<u>TOTAL COST</u>
Township Line	19'	3.638	\$370,635.87
St. Johns	18'9"	1.012	\$100,901.22
Kremer	18'6"	1.656	\$166,280.51
Celina-Mendon	24'6"	2.929	\$375,310.14

PAVEMENT MARKINGS

385.143 miles of center line and 236.056 miles of edge line striping and auxiliary markings was completed by Dura Mark, Inc. at a cost of \$303,889.45

LITTER PICK-UP

The County Engineer's Office, in partnership with the Mercer County Solid Waste Office and various Boards of Township Trustees, sponsored various civic and community groups in 9 Mercer County townships to pick up litter along county roads in 2022. The Engineer's office paid each group \$25.00 per mile of county roads for their efforts in this community service project. Litter was picked up along 266.594 miles of county roads. The County Engineer's Office along with the Solid Waste Office furnished litterbags, safety vests, and signs. The Mercer County Solid Waste Office paid the litter disposal fees.

ROAD MAINTENANCE

Roadside maintenance of existing roadway components is a very important part of our operations. During 2022 there were 336 signs replaced out of 5,301 signs in our total inventory on both county and township roads.

Two county mowers ran consistently in the northern 1/3 of the county, and one in the southern 2/3 of the county, from May through October mowing county roads making 4 rounds in some sections. Contract mowing in the middle and southern 1/3 sections of the county was completed, with Quick Mow, Inc. completing two-thirds of the total county road mowing at a cost of \$98,639.62. Once mowers were caught up with roadway side ditches and conditions allowed, during the regular mowing season, a small portion of county ditch maintenance open ditches were mowed.

County crews installed sixty-three catch basins. Nine locations had trees cut and brush removed, along with other miscellaneous locations with more minor cuttings. In fighting snow and ice, 1,089.50 tons of salt were used at a cost of \$82,213.68 and 1,089.50 tons of grit were used at a cost of \$10,368.96. 648 hours of overtime were worked in snow removal. In all, the costs of snow and ice control and removal to our operations in 2022 were \$261,017.01.

Roadside herbicide spraying of 386 miles of county roads was completed by The Dalton's at a cost of \$25,238.70.

25 ROADS RECEIVED CHIP & SEAL RESURFACING &/OR FOG SEAL VIA OUR CREWS

<u>ROAD NAME</u>	<u>WIDTH</u>	<u>LENGTH (MILES)</u>	<u>TOTAL COST</u>
Burk. St. Henry	22.75'	3.986	\$84,885.86
Cassella-Montezuma	18.50'	1.983	\$35,305.82
*Celina-Mendon	15.00'	0.331	\$3,373.66
Charter	20.00'	0.114	\$3,102.80
*Clune-Stucke	18.75'	2.810	\$5,104.26
Co. Rd. 219A	24.75'	5.012	\$121,742.64
Deep Cut	24.75'	3.340	\$75,498.00
Eichar	19.25'	1.500	\$25,770.29
Elgin	19.25'	1.004	\$11,317.16
Erastus-Durbin	19.00'	3.519	\$61,184.20
Ft. Recovery-Minster	24.50'	7.170	\$169,872.42
Herman	19.25'	1.508	\$25,402.88
Hickernell	19.75'	1.019	\$19,795.52
*Huer	19.00'	0.170	\$673.02
Jordan	19.00'	1.513	\$26,438.39
Mercer-Darke Co. Line	18.75'	4.228	\$81,894.33
Mercer	24.00'	0.443	\$9,319.14
Oregon	19.25'	3.912	\$66,580.16
Rice	19.00'	1.578	\$26,661.02
Rockford West	10.00'	6.653	\$55,395.63
*Skeels	19.00'	4.010	\$6,187.00
Smith	09.00'	1.039	\$10,210.84
Staeger	19.25'	1.179	\$20,549.41
*Strable	18.75'	1.996	\$3,403.76
Township Line	18.75'	1.016	\$18,351.34
TOTAL FULL CHIP & SEAL/ FOG SEAL RESURFACING		61.030	\$968,019.55
(TOTAL COST INCLUDES CONTRACT HAULING & LOADER COST)			

* Fog Seal Only

*****Note: Our crews also chip sealed and/or fog sealed 35.91 miles of township roads beyond the 61.03 miles of county roads completed summing to 96.94 miles of local road chip sealing &/or fog sealing we completed on county and township roads**

DITCH MAINTENANCE INFRASTRUCTURE

County ditch maintenance activities are as continual as road and bridge infrastructure maintenance. We appreciate your input and feedback on drainage related topics. There were 46 ditches sprayed in order to keep noxious weeds and brush to a minimum. Nine of the open ditches were fully mowed and 16 had work done on them in some way: dip out, rip rap placement or tile repairs. A few of the larger open ditches had rip-rap material placed in long stretches to protect the banks from erosion. 477 loads of recycled concrete were hauled to various ditches and used as rip-rap.

One new tile project in Marion Township was implemented via the SWCD S.B. 160 process and was accepted for permanent maintenance with our office. 1.47 miles of tile were installed with this project adding an additional \$620,129.85 in drainage improvements to our program.

There was a total expenditure of \$317,470.74 and over 918-man hours involved for ditch maintenance infrastructure related tasks. One of the largest maintenance ditches is the Beaver Creek, which serves as an outlet for Grand Lake St. Marys. We continued with an ongoing erosion control project (placing rip rap) on the banks. This year approximately 5,068 tons of rip-rap (at a value of \$135,589.33) was installed along the banks near the lower end of this maintenance ditch. The accumulated cost of spraying various ditches by Right-of-Way Management was \$88,381.38.

BRIDGE RECONSTRUCTION PROJECTS

The bridge crew completed 7 bridge replacements. Four large culverts were replaced. It is important to be mindful that the bridge crew not only completes the actual structure work of the construction, but also does all the excavation and embankment activities adjoining the structure work; often-times improving not only the bridge structure, but also improving the adjoining roadway approach attributes via their efforts. On occasion, our bridge crew supports our roadway crews and also on occasion, our roadway personnel will support our bridge crew, as is needed with good flexibility in directing labor & equipment to any needed operations.

2022 BRIDGE & LARGE CULVERT REPLACEMENT PROGRAM

<u>TWP</u>	<u>BRIDGE/ CULVERT</u>	<u>ROAD NAME</u>	<u>TYPE</u>	<u>COST</u>
HOP	C103-0.30B	Herman	72 LF 84" Dia Reinforced Concrete Pipe	\$69,607
WAS	C110-5.86B	St. Anthony	66 LF 14'W x 8'H Precast Concrete Box	\$106,007
LIB	C196-0.92B	Tama	66 LF 78" Dia Reinforced Concrete Pipe	\$64,973
MAR	C20B-7.07B	Huwer	60 LF 12'W 6'H Precast Concrete Box	\$90,264
WAS	C21B-4.77B	Wabash-Federal/State Exchange	Prestress Box Beam 106.0' C/C Bearings 92' Wide (by contractor: Jutte Excavating)	\$964,940
UNI	C226A-0.11B	Deep Cut	80 LF 96" Dia Reinforced Concrete Pipe	\$96,712
REC	C70-4.31C	Philothea	16 LF 58"H x 91"W Elliptical Concrete Pipe (Extension)	\$15,807
REC	C70-4.58C	Philothea	48 LF 29"H x 45"W Elliptical Concrete Pipe	\$18,262
GRA	C81-5.15B	Burkettsville-St. Henry	64 LF 72" Dia Reinforced Concrete Pipe	\$51,559
HOP	T156-03.98C	Miller	40 LF 2'H x 5'W Precast Concrete Box	\$14,891
HOP	T156-05.19C	Miller	90 LF 77"H x 121"W Elliptical Concrete Pipe	\$93,594
DUB	T240A-1.12B	Shelley	56 LF 63"H x 98"W Elliptical Concrete Pipe	\$62,566

NOTE: Some of the bridge and culvert materials for these projects were purchased in 2021. Also, some of the projects may have been started in 2021. Cost shown is 2022 and may not be total project cost.

PERSONNEL

A total of 27 employees make up our annual personnel. In the year 2022 there were 7 seasonal employees that worked for the Engineer. In 2000 we had 31 full-time employees. In 1984 there were 39 full-time employees.

Our employees and their years of service to Mercer County:

<u>NAME</u>	<u>CLASSIFICATION</u>	<u>YRS</u>
Allen, James	Equipment Operator 2	5
Borns, Kirk	Sign Manager	27
Freeman, Todd	Equipment Operator 2/Crew Leader	22
Gray, Richard	Bridge Worker 2	23
Hague, David	Equipment Operator 2	3
Harter, Derrick	Equipment Operator 2/Crew Leader	17
Hein, John	Mechanic 2	2
Heinrichs, Karen	Administrative Assistant	17
Kahlig, Renee	Office Assistant	8
Knapke, Anthony	Bridge Worker 2	*10
Laffin, Brad	Operations Manager	33
Leininger, Mark	Highway Maintenance Superintendent	26
Louth, Garth	Equipment Operator 2	.75
Meier, Austin	Equipment Operator 2	3
Mescher, Samuel	Equipment Maintenance Supervisor	23
Messner, Dusty	Highway Maintenance Supervisor	22
Moeller, Aaron	Design Engineer/Assistant County Engineer	6
Porter, Darren	Highway Maintenance Supervisor/Safety Director	26
Post, Nick	Mechanic 2	3
Rolfes, Casey	Equipment Operator 2	3
Schamp, Aaron	Survey Design Technician/Drainage Deputy	2
Schoenleben, Bryan	Equipment Operator 2	8
Smalley, TJ	Bridge Supervisor	23
Steinlage, Michael	Equipment Operator 2/Ditch Maintenance	18
Watercutter, Anthony	Equipment Operator 2	7
Waterman, Kiel	Equipment Operator 2	*10
Wiechart, James	Mercer County Engineer	23

* Denotes employees that were awarded Certificates of Appreciation for their years of service with the Mercer County Engineer.

Employee Recognition *10 years of service*



Kiel Waterman (Equip. Operator 2) & Tony Knapke (Br. Worker 2)

As part of our efforts to improve our snow & ice control operations, as well as, the operational safety of those crucial maintenance activities, our office hosted a 3-county snow & ice control rodeo. The Auglaize & Allen County Engineers were part of this event. A portion of the event is a skills competition with equipment operators competing against the other counties. Listed below are the winners of the various competitions:

Snow Plow Teams

1st Place

Mercer County	Team A	23.883
Tony Knapke	4.750	
Casey Rolfes	8.133	
Garth Louth	6.050	
Derrick Harter	4.950	

2nd Place

Allen County	Team A	24.850
David Neuenschwander	6.167	
Bill Saffle	6.433	
Andrew Brooks	5.550	
Scott Bassett	6.700	

Snow Plow – Individual

1st Place

Tony Knapke	Mercer County	4.750
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2nd Place

Derrick Harter	Mercer County	4.950
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3rd Place

Todd Freeman	Mercer County	5.083
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Backhoe Basketball

1st Place

Jeff Steinke	Auglaize County	3:50:76
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Backhoe Bowling

1st Place

Dusty Messner	Mercer County	47:83
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Skid Loader

1st Place

Joel Etgen	Auglaize County	2:52:65
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INTERESTING FACTS

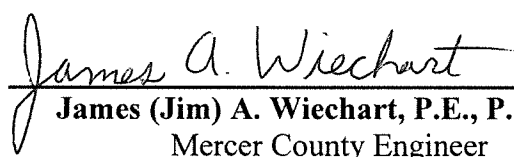
- There are 379 bridges on Mercer County township and county roads. Every year all 379 bridges are inspected by our office.
- There are 444 miles of township roads and 386 miles of county roads in Mercer County.
- There is an average of 17 miles of county roads and 15 bridges per employee.
- Since 1999 the Mercer County Engineer has received approximately \$7,674,359.35 in competitive state grant programs for local road improvements.
- Since 1999 the Mercer County Engineer has received \$34,570,841.36 in competitive federal grant programs for local road improvements.
- No real estate, sales or property taxes fund county road and local road bridge improvements in Mercer County. Road user fees in the form of motor vehicle gas taxes and license fees fund our efforts.
- Asphaltic Concrete prices as bid by the Mercer County Engineer increased 134% from 2008 to 2022, an average increase of 8.9% per year.
- By the end of 2022, we have 32.25% of our county road pavements at or wider than 22'.
- The number of Mercer County Engineer full and part-time employees has decreased over the last 20 years with less resources going towards salaries and fringe benefits as a percentage of the total budget.
- Average years of service of county engineer full-time employees is 13.95 years.

SUMMARY

Much was accomplished in 2022 and we welcome your comments, suggestions and questions to our office: Mercer County Engineer, 4884 Mud Pike, Celina OH 45822, Phone# 419-586-7759, e-mail: engineer@engineer.mercercountyohio.gov. Listed below are some of the short and long-term goals for the office for the years to come as well as our mission statement.

1. Maintain an acceptable standard of condition of our roadway pavements & bridges.
2. Obtain outside funding sources to supplement our budget for capital improvements.
3. Be aggressive where possible in putting significant resources into capital improvement projects like roadway widening, bridge replacements, etc.
4. Assist townships in getting outside funding sources for their capital improvement projects and assist them in the administration of those funds.
5. 24' by "44"—long-term goal to have all county road pavements widened to a minimum width of 24' by the year 2044.
6. Improve the condition of our county ditch maintenance program ditches and tile.

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