



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

## ~Mercer County Engineer~ REPORT FOR 2021

### **The Incredible Value of What Your Professionally Licensed, Locally Elected County Engineer Provides**

In life, we sometimes take many things for granted that are not givens. We were able to get up to see another day and our loved ones in the morning. We can flip a switch to light our environment and take a warm, comfortable shower in the morning. As we drive down the road, the bridge we just drove over was safe and useable and we were able to travel 15 miles in a little over 20 minutes to get to work. If you stop to think, it is amazing what we all take for granted nearly every minute of every day. Every time you drive on a county road or over a bridge on a township or county road, you are realizing the safety and value that Ohio's County Engineers provide. It is exceedingly easy to take this for granted.

One of the most efficient expenditures of tax dollars is to support local infrastructure that all our citizens can use and enjoy for their current and future benefit. The total county engineer staff and work force make up less than 10% of all Mercer County government employees. With some relatively simple math, we can easily demonstrate the value provided to the public. In 2020, our total revenue summed to \$10,252,969.12 (and by the way, \$3,407,198.78 of that total amount consisted of state and federal grants as well as reimbursements for fuel and work we did for other public entities). If you take that total amount and divide it by the number of people in Mercer County, that equates to a per person cost of  $\$10,252,969.12 / 41,172 = \$249.03$  per year.

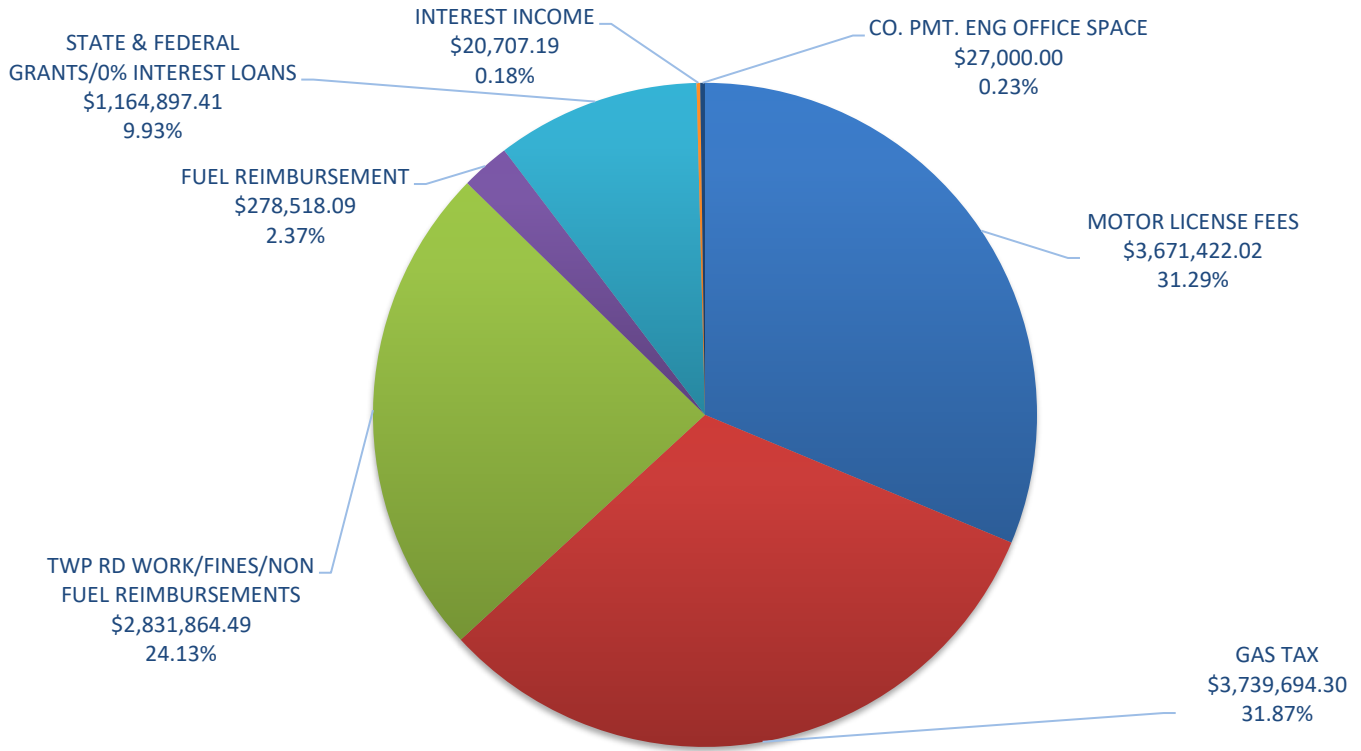
Just \$249 per person / per year to maintain and keep safe 378 bridges and 386 miles of county roads. The other intangible to consider here is our crews do a significant amount of work (which we are reimbursed for) on the 446 miles of township roads in our county. To further break this down, this equates to a mere 68¢ per day / per person cost to have the privilege and opportunity of using the vast network of rural local roads in our county. By doing a quick "Google" search on Amazon, you pay more for dental floss or for a ladies' eye liner brush than you do to drive down certain roads. A recent tax foundation study estimated for an income level of \$50,000 to \$75,000, the total overall tax rate that households experienced was 15.2%. The median US household income in 2020 was \$61,937. At that tax rate, the total tax paid would equate to \$9,414.42 per year. There is an average of 2.53 people per household in the US in 2020. If you divide the amount the county engineer realizes versus other direction of those tax resources, the county engineer receives  $(2.53 \times \$249.03) / \$9,414.42 (100\%) = 6.7\%$  of your total tax burden, per household. To further highlight the value if you look at that cost as a percentage of total income, this equates to  $(2.53 \times \$249.03) / \$61,937 \times 100\% = 1.0\%$  of the average household income.

The Mercer County Engineer's Office strives to provide you, the public, with safe, well maintained, open roads at great value to you, the taxpayer. Our mission statement at the end of this annual report formalizes why we exist and what we do. We work hard to provide you with that value 24 / 7 - 365 days a year. This respect for the tax payer and striving to achieve our mission is built into our DNA.

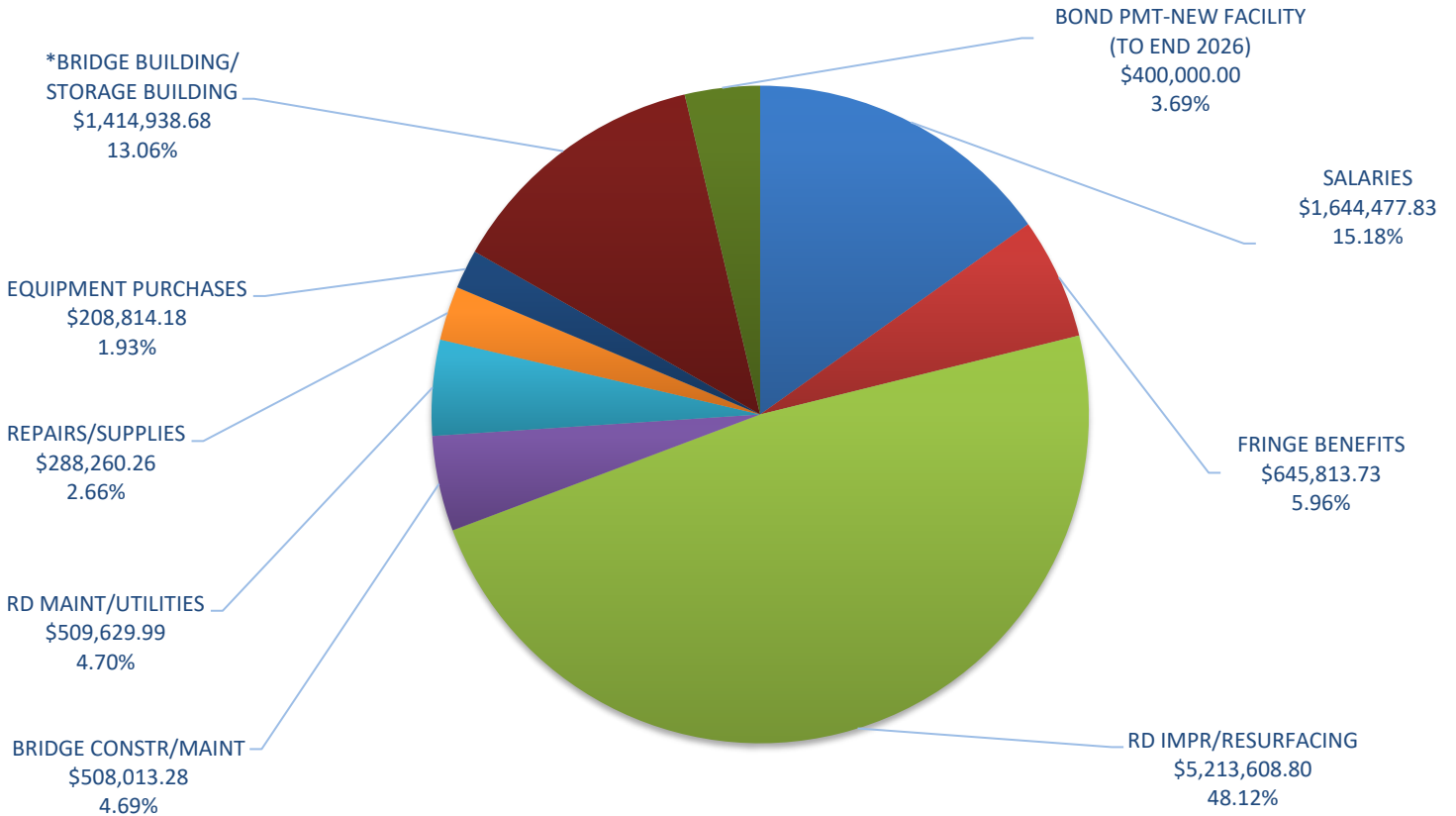
When you head home on a late January evening on a plowed open road, remember not to take for granted, the people that helped with that and remember the value the employees and the county engineer have provided to you for your ability to safely and efficiently move about the county. We are committed to serving the public in the ways we are able.

Thus, the included facts and figures serve as our annual report for activities of calendar year 2021.

## Total Receipts \$11,734,103.50



## Total Expenditures \$10,833,556.75



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

\* Bridge Building/Storage Building – To completely be vacated from all buildings/areas of the Mercer County Fairgrounds, the bridge building/storage building was built in 2021. Now, all county engineer facilities, buildings & personnel are solely at our 4884 Mud Pike location.

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**EQUIPMENT PURCHASES**

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The following is a list of the purchases over \$5000 during 2021.

Gledhill 12 Power Reversible Snow Plow & Swenson Under Tailgate Material Spreader for Truck #11	\$ 13,650.00
2007 International Single Axle Dump Truck w/ss bed, plow & spreader (#13)	\$ 20,000.00
2022 International HV507 Dump Truck w/ss bed/hydr/spreader control/plow hitch (#15)	\$ 146,101.41
Gledhill 12' power reversible snow plow (#15)	\$ 11,800.00
	<b>\$191,551.41</b>

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**FULL ASPHALTIC CONCRETE RESURFACING**

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<u>ROAD NAME</u>	<u>WIDTH</u>	<u>LENGTH (MILES)</u>	<u>TOTAL COST</u>
TOWNSHIP LINE	19'	5.326	*\$502,411.96

\*Partial OPWC Grant Funds

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**PAVEMENT MARKINGS**

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64.84 miles of center line and 12.31 miles of edge line striping was completed by American Roadway Logistics at a cost of \$32,788.75.

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**LITTER PICK-UP**

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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 8 Mercer County townships to pick up litter along county roads in 2021. 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 265.133 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.

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**ROAD MAINTENANCE**

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Roadside maintenance of existing roadway components is a very important part of our operations. During 2021 there were 384 signs replaced out of 5,295 signs in our total inventory on both county and township roads.

Three county mowers ran consistently in the north 1/3 of the county, May through October mowing county roads making 4 rounds in some sections. Contract mowing in the middle and south 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 \$119,298.76. 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 103 catch basins. 12 locations had trees cut and brush removed, along with other miscellaneous locations with more minor cuttings. In fighting snow and ice, 1,075.75 tons of salt were used at a cost of \$71,203.95 and 1,075.75 tons of grit were used at a cost of \$10,004.48. 1,051 hours of overtime were worked in snow removal. In all, the costs of snow and ice control and removal to our operations in 2021 were \$292,636.10.

Roadside herbicide spraying of 385 miles of county roads was completed by DeAngelo Brothers at a cost of \$23,120.32.

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**24 ROADS RECEIVED CHIP AND SEAL RESURFACING VIA OUR CREWS**

(ALL OF THESE ROADS WERE FOG SEALED AFTER THE CHIP SEAL APPLICATION via WARD CONSTRUCTION)

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<u>ROAD NAME</u>	<u>WIDTH</u>	<u>LENGTH (MILES)</u>	<u>TOTAL COST</u>
BURRVILLE	17.5'	0.505	\$6,978.32
CARMEL CHURCH	18.25'	1.016	\$12,455.29
CASSELLA-MONTEZUMA	18.5'	1.695	\$21,365.58
CELINA-MENDON	24'	VARIES	\$3,482.29
CR 716A	18.25'	1.529	\$21,258.96
ERASTUS-DURBIN	18.75'	2.02	\$25,053.32
FAIRGROUND	11.5'	0.404	\$3,542.24
FRYSINGER	18.75'	2.221	\$31,463.85
FT RECOVERY-MINSTER	21'	3.433	\$51,412.27
HARRIS	19'	2.06	\$28,596.06
HOENIE	19'	4.048	\$50,365.58
HUWER	18.75'	6.143	\$82,652.16
KREMER-HOYING	21'	2.522	\$41,759.95
MORROW	18.5'	3.015	\$38,821.39
OLDTOWN	19'	3.023	\$38,959.29
OREGON	19.5'	7.231	\$93,856.74
SCHAADT	18.75'	2.018	\$28,230.73
SHELLY	18.5'-19'	4.021	\$57,206.49
SHORT	19'	0.290	\$4,428.74
TAMA	19.75'	3.514	\$43,266.59
TOMLINSON	18.5'	1.012	\$13,604.17
WABASH	19'	3.028	\$43,815.95
WATKINS	19'-19.5'	2.271	\$32,618.70
WINKLER	19'	4.832	\$64,033.40
<b>TOTAL FULL CHIP AND SEAL</b>		<b>61.851</b>	<b>\$1,096,074.57</b>

**RESURFACING**

(TOTAL COST INCLUDES CONTRACT HAULING & LOADER COST)

**\*\*\*Note: Our crews also chip sealed 32.791 miles of township roads beyond the 61.851 miles of county roads completed summing to 94.642 miles of local road chip sealing we completed on county and township roads**

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**DITCH MAINTENANCE INFRASTRUCTURE**

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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 43 ditches sprayed in order to keep noxious weeds and brush control to a minimum. Six of the open ditches were fully mowed and 15 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.

One new tile project in Hopewell/Dublin Townships was implemented via the SWCD S.B. 160 process and was accepted for permanent maintenance with our office. 2.083 miles of tile were installed with this project adding an additional \$490,407.00 in drainage improvements to our program.

There was a total expenditure of \$283,722.37 and over 782-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 6,178 tons of rip rap (at a value of \$154,459) was installed along the banks near the lower end of this maintenance ditch. The accumulated cost of spraying various ditches was \$61,091.

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**BRIDGE RECONSTRUCTION PROJECTS**

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The bridge crew completed 6 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.

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**2021 BRIDGE & LARGE CULVERT REPLACEMENT PROGRAM**

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<u>TWP</u>	<u>BRIDGE/ CULVERT</u>	<u>ROAD NAME</u>	<u>TYPE</u>	<u>COST</u>
GRA	C10-7.31C	WATKINS	72 LF 90" DIA REINFORCED CONCRETE PIPE	\$56,303
MAR	C20B-6.00B	HUWER	64 LF 12'W X 7' H PRECAST CONCRETE BOX	\$101,360
WAS	C80-5.80B	SIEGRIST JUTTE	64 LF 97" H X 151" W ELLIPTICAL CONCRETE PIPE	\$94,368
LIB	C180-5.86C	OREGON	48 LF 38" H X 60" W ELLIPTICAL CONCRETE PIPE	\$24,706
HOP	C196-6.97B	TAMA	84 LF 97" H X 151" W ELLIPTICAL CONCRETE PIPE	\$125,707
BLA	C250-01.33C	WINKLER	48 LF 34" H X 53" W ELLIPTICAL CONCRETE PIPE	\$22,127
BLA	T45A-2.14B	JORDAN	72 LF 87" H X 136" W ELLIPTICAL CONCRETE PIPE	\$10,253
DUB	T61-22.23B	TOWNSHIP LINE	88 LF 102" DIA REINFORCED CONCRETE PIPE	\$12,658
JEF	T118-0.59B	BROWN	72 LF 72" H X 113" W ELLIPTICAL CONCRETE PIPE	\$79,427
HOP	T190B-1.75C	FAST	64 LF 60" DIA REINFORCED CONCRETE PIPE	\$27,675

**NOTE:** Some of the bridge and culvert materials for these projects were purchased in 2020. Also, some of the projects may have been started in 2020. Cost shown is 2021 and may not be total project cost.

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**PERSONNEL**

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A total of 26 employees make up our annual personnel. In the year 2021 there were 6 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	4
Borns, Kirk	Sign Manager	26
Freeman, Todd	Equipment Operator 2/Crew Leader	21
Gray, Richard	Bridge Worker 2	22
Hague, David	Equipment Operator 2	2
Harter, Derrick	Equipment Operator 2/Crew Leader	16
Hein, John	Mechanic 2	1
Heinrichs, Karen	Administrative Assistant	16
Kahlig, Renee	Office Assistant	7
Knapke, Anthony	Bridge Worker 2	8
Laffin, Brad	Operations Manager	32
Leininger, Mark	Highway Maintenance Superintendent	*25
Meier, Austin	Equipment Operator 2	2
Mescher, Samuel	Equipment Maintenance Supervisor	22
Messner, Dusty	Highway Maintenance Supervisor	21
Moeller, Aaron	Drainage Engineer/Assistant County Engineer	5
Porter, Darren	Highway Maintenance Supervisor/Safety Director	*25
Post, Nick	Mechanic 2	2
Rolfes, Casey	Equipment Operator 2	2
Schamp, Aaron	Survey Design Technician/Drainage Deputy	1
Schoenleben, Bryan	Equipment Operator 2	7
Smalley, TJ	Bridge Supervisor	22
Steinlage, Michael	Equipment Operator 2/Ditch Maintenance	17
Watercutter, Anthony	Equipment Operator 2	6
Waterman, Kiel	Equipment Operator 2	9
Wiechart, James	Mercer County Engineer	22

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

Recognition

25 years of service

Mark Leininger

Highway Maintenance Superintendent



Recognition

25 years of service

Darren Porter

Highway Maintenance Supervisor/

Safety Director



Retirement

24 years of service

Mark Linn

Engineer Technician 2/

Survey Technician



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## INTERESTING FACTS

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- 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 14 miles of county roads and 14 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 \$34,343,711.36 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 80% from 2007 to 2021, an average increase of 5.7% per year.
- By the end of 2021, we have 32% 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 13.4 years.

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## SUMMARY

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Much was accomplished in 2021 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@mercercountyohio.org. 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.

*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.*

*James A. Wiechart*

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**James (Jim) A. Wiechart, P.E., P.S.**  
Mercer County Engineer