

# 2019 AUGLAIZE COUNTY ENGINEER’S ANNUAL REPORT

By: Douglas Reinhart, P.E., P.S., Auglaize County Engineer  
To the Board of Auglaize County Commissioners:

One of the numerous mandates within the Ohio Revised Code is for the County Engineer to provide to the County Commissioners a status of the infrastructure under the Engineer’s jurisdiction. Even though it is a code requirement, this information is more importantly needed to inform the citizens of Auglaize County how their 2019 contributions to this department were spent. This report provides to the reader a number representing the actual cost of the improvements they have witnessed along the County Highways this past year. The annual report also creates a baseline of accomplishments so we can look back yearly at past reports to see if we accomplished road/bridge/drainage improvements than in past years. In order to keep costs in line, my staff and I develop this report which is printed locally and then distributed countywide as an insert through our local newspapers for approximately ½ the cost of a postage stamp.

Special “THANKS” to all the landowners adjacent to the many road, bridge and drainage improvements. Their cooperation allowing crews to work off the road right-of-way when needed to allowed our crews to more efficiently complete the necessary drainage and safety shoulders. This cooperation reduced the overall cost of the improvement by not confining our crews and allowed the safety improvements to extend beyond the highway easement, resulting in a much safer roadway for everyone. A “THANK YOU” also goes to the employees at the Highway/Engineering Department for their efforts during this past year. They have a wonderful work ethic and are extremely skilled.



Weather always dictates how successful a day we will have with 2019 providing several challenges. A major flooding event occurred the night of May 16<sup>th</sup> where 7½” of rainfall was reported just south of Wapakoneta over a very short period of time. One of the many structures damaged was on Owl Creek Road (photo left). The storm eroded the channel below this 3-sided box to a depth of six feet below the concrete footers causing the entire south half the structure to fail. The bridge had to be completely removed, the channel filled and compacted to grade and then reset. Crews spent weeks repairing eroded roadway shoulders and ditches throughout the county. This event was followed by an EF3 tornado Memorial Day weekend that resulted in several more weeks of debris cleanup.

**WINTER SNOW AND ICE REMOVAL:** The winter of 2018/2019 started earlier than normal with the first event requiring plows to be mounted occurred on November 5<sup>th</sup>. Crews were dispatched a total of 26 times with the last time the trucks were sent out to treat the County’s 350 mile system coming on March 3<sup>rd</sup>. A total of 3,520 tons of a mixture of salt and sand was applied at a material cost of \$ 186,895. 17,600 gallons of a blend of beet juice and salt brine was also applied to the salt/sand mixture at a material cost of \$ 14,080.

**ADDITIONAL REVENUE:** Governor Dewine and a majority of the members of the Ohio General Assembly increased revenue for local roads and bridges for the first time in 16 years. Resurfacing the County highways with hotmix asphalt decreased annually as the cost of asphalt increased dramatically by 314%. \$100 worth of asphalt in 2003 now costs \$314. Even though the extra revenue was realized only during the last quarter of 2019, portions of Lock Two Road and Townline Kossuth was added to the 2019 resurfacing program. 2020 should see as many as 30 miles of critically needed County roadway resurfaced. Special “Thank You” goes to State Representative Manchester for voting to provide this extra funding for smoother and safer local roadways. Auglaize County’s other State Representative and State Senator voted against the revenue increase.

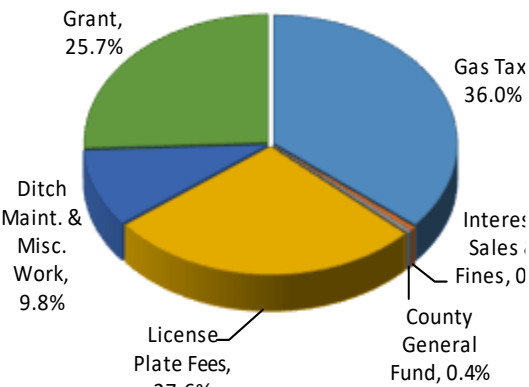


8.55 miles of the unincorporated portion of County Road 25A (above left) was resurfaced with hotmix in 2019 using a combination of funding sources. The \$2,153,858 price tag was covered by: a \$1,723,086 (80%) federal gas tax grant; \$376,000 (17.5%) grant from the Ohio Public Works Commission; \$54,772 (2.5%) paid from local license plate revenues. Due to the statewide competition for the federal gas tax grants, this 80% funding can only be obtained for roadway projects every 8-10 years. 25A is under laid with a concrete slab base that has expansions joints every 40’, which will result in the “bump” as that joint works its way upward through the asphalt overlays. During the 1986 asphalt overlay each joint was treated by grinding down the “bump”; treating the crack with a modified liquid asphalt; then placing a waterproofing fabric in the trench prior to the asphalt overlay (above right photo). That project amounted to repairing a joint every 40’ for 8.55 miles. As a part of the 2001 overlay, only 140 joints had expanded and needed a second waterproofing treatment. Eighteen years later, the 2019 only treated 30 reoccurring “bumps” throughout the entire project and all those were located south of Wapakoneta.

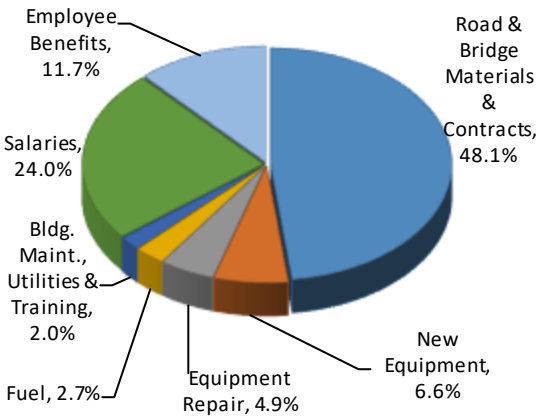
**2019 HOTMIX RESURFACING (Paid with local gas tax/license plate funds)**

Road Name	Location	Tons/Hotmix	Cost
Lock Two Road	Mercer Line to Tri-Township	1,622 tons	\$148,456
Townline Kossuth	CR#33A to Glynwood Road	1,746 tons	\$158,945
Buckland Holden	Railroad east to SR#501	2,509 tons	\$238,755

## 2019 RECEIPTS



## 2019 EXPENDITURES



## RETIREMENTS

**Kevin Schnell, P.E., P.S. (above)** retired with 36 years of service. He is one of just 800 persons out of the 11 million residents of Ohio to hold both an Ohio Professional Engineering & Professional Surveying License. For many years, Kevin held the position of Assistant County Engineer. He performed the surveying, engineering design, construction staking and inspection of many of the roadway improvement projects and petitioned ditches that you have witnessed throughout the county. Kevin and his wife Linda reside in Wapakoneta. Special Thanks for all your hard work and dedication. Best wishes in your retirement.

**Gary Kuck (below photo),** Chief Deputy for Auglaize County retired at the end of 2019 with 35+ years of service. Just a few of Gary’s duties include preparing specifications, bidding documents and procurement of all the road and bridge equipment and construction materials used by this department annually. His efforts made sure we had the proper materials at the needed location at the appropriate time which resulted in an overall efficient operation. Gary worked daily with the mechanics and superintendents troubleshooting problems and making sure each projects needs were met. He and his wife Luanne live in the New Knoxville area. Good Luck in well-deserved retirement.





BRIDGE CREW CONSTRUCTS NEW SALT SHED



The existing salt storage facility was built in 1996 with enough storage capacity to house enough salt for an average winter. Due to the quality control setup for mixing salt with sand, we now sell that mixture to 17 different governmental agencies in the county and half of all material leaving this complex is applied to non-county maintained roads. The engineering staff designed a new 2,000 tons capacity shed which is being dedicated for salt storage for the other agencies served. Large paneled forms were rented, 5.5 miles of reinforcing steel bars set by the bridge crew and 330 cubic yards of concrete placed. The County Commissioners provided the funds for the structures materials. A per ton surcharge was placed on the salt stored for the 17 agencies which will gradually repay the Commissioners as salt is being used.



2019 BRIDGE PROGRAM

The construction season began in the spring with the building of the salt storage facility. When completed, planned bridge work was put on hold due to the 7 ½” rainfall event on May 16<sup>th</sup>. Crews spent several months repairing structures damaged by the storm setting back the number of bridges planned for 2019. Listed below outlines the location, type of structure installed and corresponding cost.

<u>ROAD NAME</u>	<u>TYPE OF STRUCTURE</u>	<u>COST</u>
Pusheta	Deck Replacement with 31’ County Beams	\$ 48,506
Hardin County Line	New Bridge with 33’ County beams	\$ 53,766
Glynwood Knoxville	Deck replacement with 56’ steel beams	\$ 85,750
Fairmont	64 feet of 14’ x 7’ County 3-sided box	\$ 66,630



Upper left photo shows county manufactured 33’ long beams being set on the Hardin County line. Once placed, a 6” deep concrete deck is poured to lock the beams together and provide the necessary carrying capacity for a 33’ long span. Special thanks to the Hardin County Engineer for sharing the cost.

Upper right photo is the deck replacement on the Glynwood Knoxville just north of the Glynwood Church. Over the past winter, county crews applied two applications of epoxy paint to the steel beams, then constructed and attached brackets for cross members between the beams. After setting and attaching the cross members, a treated wood decking plus a waterproofing membrane was then installed prior to the placement of the asphalt-wearing surface.



The Engineering Department has its newest Professional Engineer. Ross Wuebker, P.E. (left) passed an 8-hour board exam administered by the Ohio Board of Registration early in 2019. Ross is a graduate of the University of Toledo with a degree in Civil Engineering. Soon after college, Ross also passed another 8-hour Engineering Intern (E.I.) exam soon after graduation. He has also passed a third 8-hour exam (Surveying Intern) given by the Board to begin his eventual path to become a Professional Surveyor in Ohio. Ross, his wife Kelly, and their son Eli, reside in Minster. CONGRATULATIONS!!

The County Sanitary Department is also housed at the County Garage. The three-person crew oversees the maintenance of the sewers and treatment plants within 11 different districts. Eric Pierson (right) worked for the department for less than two years when he passed away suddenly on October 17 while working on the plants. He had previously obtained his Ohio Class 1 Wastewater Treatment Plant Operators license. Eric always wore a smile and had a tremendous work ethic. Our condolences to his family.



DRAINAGE IMPROVEMENTS

The crew in the left photo is shown installing a new storm sewer along the west side of CR#66A. As an ongoing program to replace century old failing storm sewers within the road right-of-way, 9,750 feet of new sewers and 81 new catch basins were replaced along and through county roadways in 2019. Many of the projects were along the front of

residences where they wished to have a shallow side ditch in order to safely mow their yard. In those cases, the property owners paid for the materials and our crews performed the installation. The reason I have always promoted our participation is the fact that a side ditch that can be mowed safely also provides a safe ditch for a vehicle to travel should they leave the pavement. It is safer for both parties.

The ongoing logjam removal maintenance on the 71 miles of both the St. Mary’s and Auglaize Rivers seems to never end. Until all the dead ash trees have either fallen or been removed, that work will continue. The jam shown in the right photo was on the St. Mary’s River west of Kossuth. That location two years ago had been cleared of debris.



COUNTY GARAGE DEEMED “FUNCTIONALLY OBSOLETE”



No state or federal agency has condemned the County Garage, so let me explain. Of the 26,386 bridges in Ohio maintained by counties, 3,857(one in seven) are rated functionally obsolete. To obtain this status, the bridge must meet at least one of the following: bridge width is narrow compared to the approach lanes or shoulder width; the approach geometry of the roadway is irregular; there does not exist enough vertical clearance. The bridge is structurally sound, but the size opening and geometry of the structure does allow for safe two lane traffic flow. Shown above is the Auglaize County Garage which also houses the Engineering Department. The western portion of the complex (left side of the photo) is referred to as the “new” addition was constructed in 1969, 50 years ago. The eastern portion of the building (center/right in the photo) was constructed 71 years ago in 1948. At that time, the County owned no tandem trucks. Now we have 15 in the fleet and 13 are on snow plow routes. There were no excavators, 35 ton cranes, front end loaders, dozers and graders, etc. of the size that are now commonly used for road/bridge construction. The below right photo shows that even the few single axles we own won’t fit through the door of the 1948 addition. The doors have been widened twice but now there are overhead clearance issues. Only 10 of the 15 snow plows we dispatch are housed in the “new” addition with the rest stored in a bridge building remotely located to this complex. The new funding from the State needs to be dedicated for road construction due to the shortfall in that funding for the past 16 years. This county has no functionally obsolete bridges but we are housed in a building that is.

