

ALLEN COUNTY ENGINEER

2019-2020 Annual Report of the Engineer

This report is prepared by the Allen County Engineer as directed by Section 5543.02 of the Ohio Revised Code

July 2020 Issue 22

From the Engineer's desk.....



As your Allen County Engineer, my job is to administer all aspects of design, construction, repair and maintenance of our local roads and bridges here in Allen County. This includes 353 miles of roads and 377 bridges. Ultimately, my goal is to provide the safest and most efficient roadway system possible. Thankfully, I have a great staff to help me accomplish this goal, but over the years, it has become increasingly difficult due to inadequate funding.

For those who may not know, our funding primarily comes from license plate fees and gasoline/diesel fuel taxes, which are flat dollar amounts (either per gallon or license) and can only be increased through legislative action at the Statehouse. Well, after years of ringing the bell to sound the alarm on our aging infrastructure and inadequate funding, the message was finally heard. For in 2019, the Ohio Legislature and the Governor's office finally passed legislation that included additional revenue for the transportation infrastructure in Ohio. While the Governor initially requested an 18 cent increase in the motor vehicle fuel tax with an inflationary factor, the legislature approved a combination of 10.5 cents for gasoline and 19.5 cents for diesel fuel. In addition, electric and hybrid vehicles were taxed for the first time with a flat \$200/\$100 per year fee, respectively. This will help pave the way for collecting revenue from these vehicles, as they utilize the infrastructure but currently don't contribute through fuel taxes.

These increases are long overdue and will add about \$1.5 million dollars to the Allen County Engineer's annual budget. While some may think the County should now be "flush" with money, please keep in mind that it has been 14 years since the last increase and that improvements in fuel economy have reduced the amount of fuel being sold. At the same time, our equipment costs have doubled and construction costs have tripled (paving cost \$25,000 per mile in 2003 vs \$75,000 today). So over the years, tight budgets have forced us to reduce costs wherever possible, including reducing staff and shifting our priorities from construction to preservation. So while this funding increase won't make us "flush" with money or solve all of our roadway problems, it will certainly help.

I hope you enjoy reading this Annual Report, which summarizes the condition of our department and of our roads and bridges in 2019. If you should have any questions, please feel free to contact my office at 419-228-3196 or visit us on the web at www.allencountyohengineer.com.



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Roadway Department

The Roadway Department is responsible for the safety & maintenance of **over 351 miles** of county roads in Allen County. We also assist the Townships and Villages with the maintenance of their roadways at **550 miles** and **248 miles**, respectively. In 2019, over \$3.6 million dollars were spent for county, township & village road work. Our county road crews and our paving contractor were very busy paving 38.3 miles of county, township and village roads and sealing **82 miles** of roads; sealing is another name for tar & chip application to the surface of the roadway. Seal acts as a water sealant to keep pavement from absorbing water.

The Roadway Department has always taken pride in the quality of the roads in Allen County. While the cost of asphalt and stone continues to rise, the revenue for the Allen County Engineer and more specifically, the Roadway Department, has remained constant. This means that we cannot annually maintain the same miles of roads as we once could. Ideally, we would like to see a newly paved road last 20 years before it needs re-paved. At that rate, we should be paving nearly 20 miles of roads per year to properly maintain our roadway system. Unfortunately, we do not have the funds to do that, but we do have a couple of other options.

First, we often apply for different types of state and federal funding to help finance our projects. This year we received a **\$1,000,000 grant** through the Ohio Public Works Commission (OPWC) to help fund an additional 16.4 miles of paving and milling throughout the county. Also in 2019, we applied for a **\$156,000 grant** from the Ohio E.P.A. to pave a **4.0 mile** section of Columbus Grove-Bluffton Road just west of Bluffton. This project will be completed next year.

Secondly, we can use alternative methods of maintenance to help prolong the life of our roads. In 2014, we purchased a Dura Patcher machine to repair potholes. The machine has several components that work together to create the blend of gravel and emulsion that the workers spray into the potholes. The method uses sufficient force to compact the material as it is applied to fill the hole. The result is not as smooth as a newly resurfaced road, but it is better than having potholes and much faster and less expensive than rebuilding an entire section of roadway.

There are also several companies that apply specialty coatings to pavements to help prolong the pavements life. One of those treatments, that we have been using and have had great success with, is a product called Reclamite. Formulated from the same light oils and resins that are the volatile fractions of asphalt. Reclamite provides a simple, one-step early method for asphalt preservation by restoring plasticity and durability of the asphalt binder. In 2019, we applied Reclamite to **5.1 miles** of roads in the county at a cost of **\$75,000**.

If you have any questions about the above maintenance techniques or questions about the Allen County Road Program in general, please feel free to give the Roadway Department a call at 419-996-7110 or visit our website.



2019-2020 Winter



Our crews worked very hard this winter keeping roadways safe in Allen County. In **2019**, we entered into a salt contract with ODOT for **3,750 ton** of road salt at **\$70.67 per ton** from Detroit Salt. The Village of Bluffton, Village of Spencerville, City of Delphos, Shawnee and American Townships also took part in the purchase & utilization of the road salt. This past winter we spent over **\$270,000** for salt, grit and labor to care for the roadways of Allen County. In addition to the bad winter, comes the pot holes, however our crews are doing their best to keep up with filling the pot holes.

Traffic Department

In 2019, the Allen County Engineers Traffic Maintenance Department had a typical busy year. In total, the department purchased **5,170 gallons** of yellow traffic paint for centerline striping. This paint covered **178 miles** of county roads, **99 miles** of township roads, and **15 miles** of village roads. In addition to that, **880 gallons** of white traffic paint was purchased for edge line striping that covered **12 lane miles** of township roads and **32 lane miles** of county roads. The Traffic Department also spent the summer painting railroad and school legends, school crosswalks, lane arrows and stop bars at intersections. Along with striping, the Traffic Department also maintains over 5,300 traffic signs. On-going throughout the year, signs are checked for condition and visibility and missing signs are replaced. It is important that all signs meet the minimum reflectivity standards. As signs are replaced, they are upgraded with a High-Intensity Prismatic surface that reflects light at a further distance and thus attracts motorist attention earlier.

The county also maintains **15 traffic light** controlled intersections, one signal flasher and assists in maintaining 3 village traffic lights. All signals have been upgraded to LED lights, which last longer than incandescent bulbs and will also save electricity. In 2019, there were 3 battery back-ups installed at county maintained signals to insure motorist safety in the event that there is a power outage. These new signals provide approximately 8-10 hours of normal operation per location. Annually, all traffic lights and traffic cabinets are also cleaned and inspected to maintain proper working order.

Tax Map & GIS Department

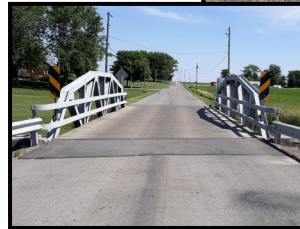
The Allen County Tax Map/GIS Department is located in the Allen County Courthouse. The office handles all Tax Map and GIS responsibilities for Allen County. In 2019, the Tax Map Office processes **406 parcel splits and combinations** to keep the Tax Maps current for the use of the Auditors office and citizens of Allen County. The office also processes **358 survey reviews, 3896 deed reviews & 335 foreclosures** in accordance to the County Conveyance Standards.

In 2019 the GIS Department maintained data for multiple departments in Allen County. These departments include Allen County Engineer, Sanitary Engineer, Health Department, Auditor, Water District, Ditch Maintenance & Sheriff's Department. Many of these departments are deploying GIS in a desktop and mobile platform to meet their everyday work needs. These applications have allowed Allen County to streamline repetitive tasks and maintain accurate up to date data.

Bridge and Culvert Departments

The Bridge and Culvert Crews were busy in 2019, completing a variety of projects, both large and small. While there were fewer large projects completed in 2019, the skilled crews accumulated over **6,700 total hours** towards projects throughout Allen County. A review of crew functions reveals that their work generally falls into three categories: bridge work, culvert work and storm sewer work. Within each of these areas, there is also construction, maintenance and repair activity annually. In terms of time, personnel hours were very equally divided between the three types of work. Culvert work and storm sewer work each used **34%** of the total hours, and bridge work closely followed, using **32%** of the crew's time. This cooperative effort between crews keeps our bridges and roadways safe for the traveling public.

In Amanda Township southwest of Elida, a **1946 concrete slab bridge** on **Grubb Road** was replaced by a 29' long x 32' wide prestressed concrete box beam bridge. The new structure just north of Zion Church Road replaced an inefficient bridge that had been under a restricted load rating for over ten years. Thanks to the utilization of the Federal/State Exchange Program obtained by the County Engineer, the County only had to **pay 5%** of this bridge built by R.G. Zachrich Construction of Defiance, OH for **\$309,413.45**.



Northwest of Cairo in Monroe Township, County Forces replaced a 10' long x 16' wide concrete slab ditch crossing with 84' of 72" diameter round reinforced concrete pipe along **Hofferbert Road** between Hillville and Miller Roads. This new structure is much wider and safer than the previous one it replaced. Due to the Allen County Engineer's Office receiving an Ohio Public Works Commission **Grant of 80%** of the cost of the project, **Monroe Township trustees only had to pay for 20%** of the **\$76,503** project.

Just north of Gomer on **Gomer Road** in Sugar Creek Township, a **1951 steel pony truss bridge** was rehabilitated by County Forces for **just under \$67,000**. The project included truss and beam cleaning, repair and painting. Additionally, the stringers and timber deck were replaced. The bridge, which formerly had a load limit, has now been removed from that list.



Drainage and Ditch Maintenance Departments

All engineering and administrative work conducted by the Drainage and Ditch Maintenance Departments is approved by Brion E. Rhodes, Allen County Engineer. This department has a dual role within the county structure. It operates as the reviewing agency for commercial, industrial, and residential developments, as well as the drainage consultant for the County Commissioners. Within this realm, we are responsible for all Petitioned Drainage Improvements of which the Commissioners have final authority.

Joe Gearing, Drainage Engineer, is the overseer for the Drainage and Ditch Maintenance Departments, his responsibilities include reviewing all work, budget, and assessment procedures. To accomplish these demanding responsibilities are Assistant Drainage Engineer's Nathan Davis and Andrea Rode.

Josh Foster is the Ditch Maintenance Supervisor, he is responsible for all documentation and maintenance activities completed within this department. All projects constructed through petition and SWCD SB 160 are placed on permanent maintenance once completed. The Ditch Maintenance Crew also includes Joe Maley, Bryan Dray, and Jim Williams.

Our responsibility includes the management of over **\$22 million dollars** in drainage improvements and work consciously to provide the most pro-active and cost-effective maintenance possible. Funding for the engineering, administration, construction and maintenance of petitioned drainage improvements is derived from funds acquired from parcel owners within the watershed of each project. The methodology is outlined in the Ohio Revised Code, Sections 6131, 6133, and 6137.



As the Drainage Consultant for the Commissioners, we manage the entire process of Petitioned Drainage Improvements. All projects constructed through petition are placed on permanent maintenance once construction is completed. Currently we maintain **255 miles** of Open Ditch, **54 miles** of Agricultural and Residential Conduits, **21 miles** of Waterways, and **18 Detention Ponds**. These projects benefit **255,618 watershed acres** and **45,028 parcel owners**.

Construction was completed on the Amanda Township-Conant Ditch #1331 project in the fall of 2019 at a cost of **\$26,280**.

In 2020, we will have a final hearing for O.B. Frails Subdivision Drainage Improvement #1330 (Storm Sewer & Waterway) with bidding and construction to follow. We anticipate final hearings for Baughman #1198 and Indianbrook & Wildbrook Estates #1322 with bidding and construction to follow late that year or spring of 2021. Due to the amount of rainfall we experienced in the spring, a number of additional potential projects have been discussed as well.

We are also the compliance coordinators of the OEPA's Phase II Stormwater Regulations. An integral component of this program, of which our department manages for the County Commissioners, is the Stormwater Management & Sediment Control Regulations (SMSR). These regulations are necessary to comply with the latest mandates by Ohio EPA. The Stormwater Regulations are a self-supporting entity funded entirely from permit and review fees acquired from developers. In 2019, **17 permits** were issued at a cost of approximately **\$76,200**, funded by those private developments.

In conjunction with the above-described activities, we also have devoted a significant amount of time to Potential Petitions in which several are ready to be filed and many do not result in an actual project. An effort is also underway by a group of commissioners, engineers, and interested parties to update sections of the Ohio Drainage Laws. To accomplish this task a Drainage Task Force has been created in which we will continue to review, re-write, and proposed modified language to ORC 1515, 6131, 6133, 6135, 6137. More will follow on this topic with future newsletters.

If you would like additional information on any of our endeavors, contact the Allen County Engineers Office, Drainage Department. Phone 419.996.7130 or visit our website.

