



The Orange Brigade



Summer 2022

Logan County Engineer's Office

Volume 61

Coleman's Comments



On June 14-15, 2022, we experienced severe storms and wind, which caused significant damage in Logan County. We suffered many fallen trees, berm washouts, mobile message board damage, and one bridge destroyed by a fallen tree. Estimated costs are over \$9,996.60 for the mobile message board repairs, \$29,000 for debris cleanup and berm repairs, and \$517,000 for the in-kind replacement of bridge 209-0.18 in Pleasant Township.

Bridge 209-0.18 is a 1950 riveted steel truss built by the Champion Bridge Company of Wilmington, Ohio. The bridge has been rehabbed several times with new abutments and a new timber deck installed in 1997. In 2015 the truss was blasted and painted. This structure was a great example of a riveted-through truss.

Unfortunately, Ohio did not qualify for federal disaster relief for the June storm damage.

We have since been approved for federal bridge funding to replace the superstructure with either prestressed concrete beams or steel beams in the amount of \$220,700 and plan to proceed with the replacement by early 2024.



Continued from Coleman's Comments....

Force Account Limits:

Force account work refers to projects that we can construct with our own workforce rather than contracting work out to private construction companies. Performing work with our own crews allows us to use the public funds more efficiently and complete more highway improvements every year. Force account work that we do includes bridge/culvert replacement, bridge/culvert rehabilitation, small paving improvements, roadside mowing, spraying, crack sealing, chip sealing, ditching, snow plowing, sign replacement, and various other road and drainage repairs. Our crews are very efficient and capable of performing this work. Contracting out for construction projects has significantly higher costs to cover more detailed plans, bidding, inspection, mobilization, and profit.

In Logan County, we build nearly all of our bridges with county crews and contract out for road resurfacing. The current force account limits are \$100,000 per bridge and \$30,000 per mile for road construction and were established in 2003. The National Highway Construction Cost Index shows a 96% increase from 2003 to 2019. With the increased materials and equipment costs that we have seen this year, it is urgent that we must increase these limits in order to continue maintaining the county infrastructure. Please urge your State Representative and State Senator to increase force account limits to account for inflation since 2003.

Sincerely,



Scott C. Coleman, P.E., P.S.
Logan County Engineer



New Hires, Milestones and Promotions

*By Misty Centers
Personnel Specialist*



Promotions and Re-classifications

In February, Dick Sidders was re-classified from a Highway Technician I to a Ditch Technician I, and in April, Tracy Prater was promoted to a Bridge Technician II. Congratulations to both on successfully transitioning to new positions!

New Hires

Three new employees have joined the LCEO team full-time. In February, Trent Helmlinger was hired as a Highway Technician I, and in May, Kyle Rumer and David Kirkpatrick were hired as Highway Technician I.

Denny Stryker returned for his 23rd season as our Pavement Specialist this year. We are also pleased that Candy Powell, Rachel Wahl, Benjamin Willoby, and Elverton Hyland joined our team as seasonal employees.

Milestones

In July, Trent Helmlinger obtained his Class A CDL. Congratulations!

Using Federal Funding Opportunity To Make Local Roadways Safer

By: Michael J. Kerns, P.E.
Assistant Engineer

The Logan County Engineer's Office (LCEO) was able to take advantage of federal funding available thru the federal Surface Transportation Block Grant (STBG) program. This program is designed to be more flexible than typical federal funding opportunities and its primary goal is to help improve local transportation. Securing this funding was made possible with the group responsible for administering and awarding these funds, our local Rural Transportation Planning Organization (RTPO) - the Logan-Union-Champaign Regional Planning Commission (LUC). Each RTPO in Ohio received a portion of the STBG funds to be used in fiscal years 2022 and 2023. The LUC received an allocation of \$196,000 for both fiscal years for a total funding amount of \$392,000.

In order to improve the safety of two local roads, the LCEO sought out funding for sections of roadway involving County Road (CR) 18 and Township Road (TR) 179.

CR 18 will be getting a profile improvement just south of the TR 200/ CR 18/ CR 200/ TR 216 intersection. Currently, there is a sharp dip in the roadway about 300 feet south of TR 200 that briefly reduces the visibility of the northbound traffic approaching the TR 200/ CR 18/ CR 200/ TR 216 intersection. Our goal is to improve the safety of this intersection by giving the vehicles stopped at the intersection a continuous line of sight of the incoming northbound traffic. This improvement will require constructing a sag vertical curve across the sharp dip section, and this newly constructed roadway profile will involve a maximum fill depth of nearly 2 feet. The preliminary estimate for this project is \$122,053. Federal funds will cover a maximum of \$97,642 of eligible construction costs, and the LCEO will pay for the remaining costs.

As for TR 179, the section of TR 179 from approximately 1,800-feet south of the TR 179\TR 185 intersection to CR 10 will be widened by 2 feet and then the entire roadway of this same section will be resurfaced. Past traffic studies performed in the United States have shown that when two-lane rural roadways are widened by a total of 2-feet, there is a significant reduction in accidents. The preliminary estimate for this project is \$109,201. Federal funds will cover a maximum of \$98,281 of eligible construction costs and Jefferson Township will pay for the remaining costs.

Our office is thankful for this opportunity to work with LUC and the Ohio Department of Transportation to improve the safety of our local roadways, with a large portion of the projects being funded by the STBG program.

Click It or Tick It



Logan County First Responders from different agencies and the Logan County Engineer's Office kicked off the national Click It or Ticket Campaign on Monday, May 23, 2022.



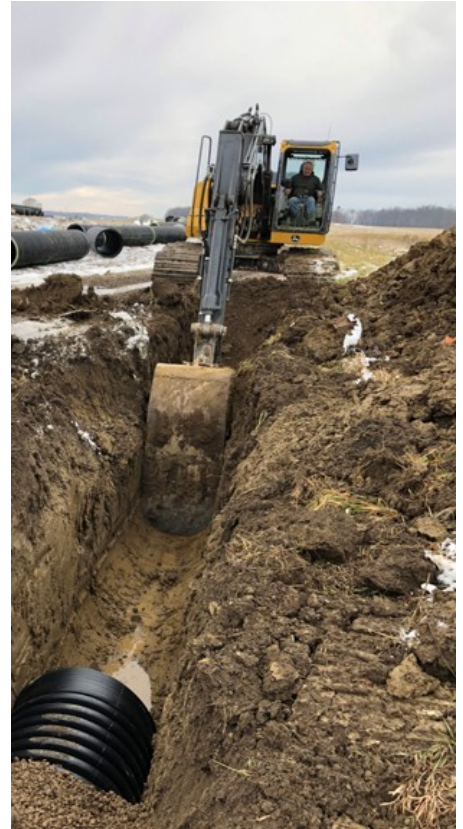
Petition Ditch Maintenance

The ditch department currently maintains 46 maintenance ditches. These ditches consist of 38.00 miles of open waterway ditches, 15.57 miles of tile, and 7.4 miles of grassed waterways, totaling 60.97 miles of maintained ditches.

Ditches are inspected every year to determine the type of general maintenance work to be done. General maintenance includes, but is not limited to, mowing and spraying twice a year, center dipping to remove sediment for improved flow, crossing repairs, bank slip repairs, erosion control, tile repairs, and removal of log jams.

If grass berms exist along the ditch, property owners must leave those in place. Please do not plant anything on the grass berms or within the easement area as it may be damaged during maintenance work.

In 2021, we spent \$55,649.96 in maintenance, placed over 200 tons of dump rock/recycled concrete, replaced 211 feet of tile, and applied 175 gallons of liquid herbicide and 13 pounds of dry herbicide.



Bridge Crew Update

*By: Elliott Fullerton
Bridge Superintendent*

This spring, the bridge crew began work on projects resulting from the annual bridge inspections this past winter. We kicked things off by placing over 200 tons of dump rock around several bridges throughout the county to fill in washouts in the stream and banks caused by high water after heavy rains. The crew then went to Twp. Rd 178-0.46 bridge in Monroe Township.

Twp. Rd 178-0.46 bridge was installed in 1933. It is a steel beam bridge with a wooden deck, wooden backwall, and wooden wingwalls. The last major rehab project performed on this bridge was in 1976 when a new deck and backwall were installed. The back and wingwalls have deteriorated over the years allowing backfill to fall through them and the road to sink. We reconstructed the back and wingwalls with new timber, which will last until the bridge is scheduled for replacement.

We power washed Twp 166-2.44, CR 58-1.61, and CR 63-1.38 bridges to rid them of salt, stone, and mud to help preserve our concrete structures. We then sealed the concrete with Barricade Silane sealer. The Silane sealer is a penetrating sealer that helps fill small voids in the concrete to keep water out. Water combined with freezing and thawing cycles will break down the concrete causing it to crumble. By keeping the salt and water out of the concrete, we can preserve and increase the life and longevity of our structures.

As the summer started, we changed gears and ground 34 butt joints for the road resurfacing program. Butt joints are areas where old asphalt or concrete meets new asphalt pavement. Each joint the county crew grinds saves the county \$350.00. So in total, we saved \$11,099 by doing the work with our in-house crews.

Safety Update

By: Misty Centers
Personnel Specialist

Heavy highway construction and snow plowing is labor intensive work often requiring the use of large equipment and hand tools, all while being exposed to traffic. Through the efforts of all LCEO employees, as of June 30, 2022, we have worked 438 days with no lost time accidents. This is no small feat working in the construction industry. To all our employees, thank you for your strong commitment to making our workplace safe and helping to keep others safe on the job, too!

For the first half of the year, we have conducted chainsaw and chipper, flagging safety, chipseal, and workzone safety training. The week of April 11-15, 2022, we

participated in the **National Work Zone Awareness Week (NWZAW)** activities. NWZAW is an annual spring campaign held at the start of construction season that encourages safe driving through highway work zones. The key message is for drivers to use extra caution in work zones. NWZAW highlights the deadly dangers of inattention in highway work areas.



Go Orange Day during National Work Zone Awareness Week

THANK YOU

A huge **THANK YOU** to our crews who kept the county roads clear of snow and ice this past winter. We also had some good help keeping the trucks running and for that we thank our mechanics. You are all appreciated!.

Our office also received "thanks" from citizens, Second Harvest Food Bank of Clark, Champaign & Logan Counties, and the Sheriff's Office thanking the Road Crews for being so helpful and doing a great job on the roads.



Logan County Sheriff's Office

We would like to say "Thank You" to the county engineers office, townships, ODOT and village plow truck drivers who did a great job in removing snow last week!

Building a Home?



If you are considering building a home in Logan County, check out the "Dreaming of Building a Home?" brochure located on our www.lceo.us website under "Additional Information".

Dreaming of Building a Home?

Recommendations to Avoid a Broken Dream



This brochure contains key contact information of persons or entities that you may need to contact prior to or during the home building process. In addition it provides guidance for each phase of the building process.

Ditch Maintenance & Traffic Department

*By Steve Tracey
Ditch/Traffic Superintendent*

The Ditch Department had a busy spring. With the help of the Indian Lake Sewer District personnel and their jet vacuum truck, we were able to jet vacuum the entire North Fork tile and clean all the catch basins. We also jet vacuumed and cleaned over 600 feet of the Emery tile. Jet vacuuming helps significantly with getting rid of debris trapped in the pipes to help improve water flow. A big thank you to the Indian Lake Sewer District.

The ditch crew cleaned the outlet of the Badger tile by dipping it. They also dipped out over 900 feet of the Bokengehalas Ditch and dipped the main tile outlet that feeds the Hoover Ditch's upper end. In addition, the crew removed trees that fell into the Southfork Ditch in multiple areas from the recent storms that passed through the area. Currently, crews are focusing on roadside mowing, mowing our maintenance ditches, and running the boom mower for sight distance issues.

The Sign Department performed a full sign inspection for Richland Township and is scheduled to do a total sign replacement for them as well. Our Sign Department currently maintains over 7,000 signs. To help maintain sight distance and prevent signs from getting damaged by mowers, we sprayed around all our road signs to kill weeds, grass, little trees, etc. In addition, the Sign Department completed its yearly traffic count on all of our county highways. Currently, we are getting ready to start our pavement marking program.

Tire Problems

*By: Mark Hilty
General Superintendent*

Over the last year or so, we have had an unfortunate problem with blown tires. Some have been drive tires, but what really made us take note is the four steer tires that blew at highway speed in traffic. Luckily, our drivers have the skill not to panic, slow down, and keep their trucks from going into the ditch or crossing the center line. Unfortunately, these blowouts have caused extensive damage to our trucks, including fenders, hoods, mirrors, and light assemblies, to name a few. Our fleet technicians started an investigation into why this was happening so frequently, and these are their findings:

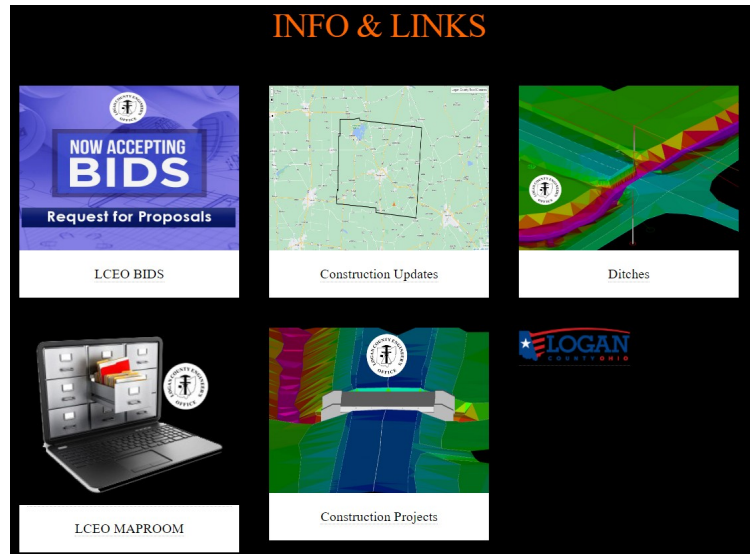
- A. Our main fleet consists of 13 mainline trucks. These trucks spend between 10-12 years on the mainline and receive regular maintenance, including new tires when needed.
- B. When these trucks come off the mainline, they usually have pretty new tires, and we keep them as spare trucks for plowing, hauling asphalt, concrete, etc.
- C. These trucks get a lot fewer miles put on them and tend to keep those same tires for ten plus years. Some of these spare trucks date back to 2001- 2009. While these trucks' tires looked good with plenty of tread, they were becoming weather-checked from age and, being in the elements over the years, have become weak. When used heavily for chip seal or hauling in hot weather, the tires would fail.

As a result, we have become more proactive and purchased around 14 steer tires and 16 drive tires to change out on second-life trucks that are 10+ years old and weather-checked. By doing this, we can keep our drivers and the public we share the road with safe. Great job, TJ, and Joe. Also, kudos to our drivers for keeping it on the road!

Map Room

*By Suzie Cochran
Map Room Supervisor*

The Map Room records can be found on the Logan County Engineer's Office website at www.lceo.us under the LCEO Map Room link on the main web page. The Surveys link includes all of the survey records, road information & highway plans, field books, railroad plans, subdivision plats & cemetery plats. Tax books ranging from 1870 to 1977 can be viewed along with school district maps, voting precinct maps, tax district maps & fire district maps. The Map Room web page also contains current County Tax maps with and without the 2019 aerial photography and links to the GIS shapefiles and FEMA to view the flood plain maps. If you need assistance locating a specific record, contact the Map Room at (937) 599-7230 or email maproom@logancountyohio.gov



Village and Township Project Funding and Services

*By Todd Bumgardner
Administrative Coordinator*

A little-known fact is our office administers projects for the villages and townships. These projects are generally resurfacing oriented with flexible asphalt paving and roadway chip sealing. Payment of these projects is a combination of funds provided by the individual entity, local sales tax receipts, the Ohio and Federal Department of Transportation, and Ohio Public Works grants.

This year these projects administered by county engineer staff total over two and a half million dollars in contracts.

Our office also offers an annual meeting for local elected officials to outline these funding paths. This meeting not only provides these valuable updates; it is in a town hall type setting where we encourage open dialogue with the county engineer and staff. The discussion also reviews the latest best practices, costs projections, and planning documents for the coming year.

Next year's planning meetings are scheduled for June with the villages and July with the townships. We anticipate three projects for the 2023 construction season. The total project cost for next year is estimated to be greater than or equal to our current year contracts. The project administration for these contracts is a service offered by the county engineer at no cost to the local entities. These projects often include coordination between federal, state, and local employees who manage their respective funding sources.

The county engineer and staff continue to offer shared services, project administration, and engineering guidance to many county agencies and other local entities. Know our office is here to help elected officials of Logan County navigate the ways and means of maintaining the local infrastructure while effectively managing tax dollars.

Highway Update

*By Dan McMillen
Highway Superintendent*

In preparation for starting the summer 2022 road resurfacing program, the highway crews hauled 8,000 tons of #8 stone and placed them in two different locations in the county at the end of this past snow and ice season. Due to our purchase date and the ability to stockpile the stone, we were able to purchase the stone at the prior year's lower rate. This spring, the crews also prepped the multiple roads scheduled for chip seal resurfacing by crack sealing them. This consisted of crews applying 40-pound blocks of 450 degrees of hot rubber-based material to fill the gaps in the road. This material is used to seal out water from penetrating the road's base material to prevent road failures. To date this season, road crews have applied approximately 24,480 lbs. of material to road surfaces. Road crews also completed a hill cut at the intersection of CR 144 and CR 153 before the road received a new 1 1/2 inches of hot mix asphalt service this summer. This cut removed the hill just before the stop sign on CR 144. The cut to the road base was 48 inches deep and 190 feet long, which significantly improved the entrance onto CR 144 from CR 153.



Rolling Flagging Operation



Many times our job requires us to use a rolling type flagging operation. This means the work area is always on the move. As you travel through this area, be aware of traffic that sometimes enters from private drives. It can be dangerous if they enter your lane. So always be prepared to stop and travel at a safe speed. Once clear of the work area, proceed in the proper lane as directed by the flagger. Heed warning signs such as one-lane road and workers ahead signs. Be prepared to slow down or stop. Also, watch for loose stones or other obstacles. Do not drive in freshly laid tar. Besides getting it all over your car, it is very slippery, and you could lose control of your vehicle. Watch out for tractors mowing the road ditches. They often have to enter the roadway

to go around signs, mailboxes, and other obstacles while watching out for holes or other hazards in the ditches. Tractor mower operators may not be able to see you. We have to watch out for each other and do everything we can to keep each other safe. Be on the lookout for flying objects from under the mowers. Sometimes they land on the road, so give them some room when passing. Please be patient and travel at a safe speed during these operations.

