



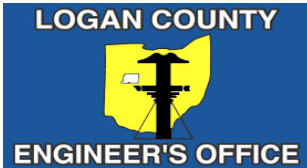
The Orange Brigade



Winter 2020

Logan County Engineer's Office

Volume 56



Coleman's Comments

The one-half percent sales tax for roads and bridges generated \$3,624,897.07 in 2019. These funds are collected and divided among county (50%, \$1,812,448.56), townships (20%, \$724,979.41), municipalities (20%, \$724,979.42), and land use and economic development (10%, \$362,489.69). Sales tax revenue decreased by 2.74 percent from 2018.

The new motor vehicle fuel user fee increase of 10.5 cents per gallon on gasoline, 19 cents per gallon on diesel, \$200 registration fee for electric vehicles, and \$100 registration fee for hybrid vehicles began collection in July of this year. We have now received four months of the new fees and it appears that the revenue is on track to meet the initial projections. The Ohio Department of Transportation has estimated that each county will receive an additional \$ 1.5 million annually from the increase and each township will receive an additional \$56,729 annually. Local municipal revenues vary by size of the community, Bellefontaine is estimated to receive an additional \$297,351 annually.

By combining sales tax with motor vehicle fuel tax, vehicle registration fees, federal grant and state grant funds, we were able to complete several construction projects in 2019. County road resurfacing totaled \$2,382,845.70 and rejuvenating sealer came in at \$172,905.30. Township resurfacing was \$297,056.93 and township chip-sealing totaled \$453,208.38. Local funds were used to fund \$88,213.90 for the pavement marking paint contract. County road chip sealing (including fog sealing) cost \$956,711.43 this year. These projects would not have been possible without the sales tax for roads and bridges. Thank you for supporting this program.

Logan County experienced multiple flood events in May and June. We worked throughout the summer and fall to

make repairs to damage caused by these events. The May flood cleanup totaled about \$ 137,252 plus more than \$216,551 for the replacement bridge 28-4.21 south of Pickrelltown. The June flood repairs totaled \$60,827.27. All of the costs have received preliminary approval and will be submitted to the State Disaster Relief Program for reimbursement in early 2020.

For the second year in a row, we have experienced a drastic increase in salt prices for the 2019-2020 winter season. Last winter we paid \$84.94 per ton for road salt and entered winter with a full stockpile. The road salt bid for this winter fill is \$87.94 per ton, which is near the highest prices in the state. This will lead to an overall cost increase for snow and ice removal. Snow and ice control costs can range between \$300,000 and \$660,000 depending on the number of snow and ice events and material costs. Through December 31, we have responded to 4 winter storm events and have used 1,069 tons of mixed grit/road salt at a total cost of \$135,501.26. This includes 802 man-hours of regular time and 227 man-hours of overtime.

In addition to salt, we continue to utilize liquid Beet Heet, a sugar beet extract, to increase the efficiency of our road salt treatment. The use of Beet Heet allows us to melt snow and ice faster and at lower temperatures. This winter, we have used 3,000 gallons of Beet Heet. As always, we encourage drivers to use caution and allow extra travel time when driving during winter weather conditions. Even though roads have been treated and plowed, you may encounter isolated slick road conditions.

Sincerely,

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



HILLCLIMB REVIVAL

Hello Scott,

The Hill Climb Revival was an overwhelming success, not without glitches, but a huge success nonetheless. Thank you for all your help.

We plan to sit down and discuss the event and how we can improve it shortly. Logan County Roads are spectacular! Lots of compliments from the participants.

Thanks A Million,

Kurt Niemeyer Preservation, Provenance & Publishing

Preserving the cars, culture & characters

Car enthusiasts converged on the Logan County area for the Bellefontaine Hill Climb Revival, bringing back a racing tradition taking place on the Corkscrew Hill stretch of County Road 28 that originated in the 1950s and continued into the early 1970s. Organizers reported a total of 90 cars were entered for all the weekend's events.

(Photo and article from Bellefontaine Examiner)



Ice and Snow ... Take it Slow

Don't crowd the plow.

Highway Update— Fog Seal

*By Joel Miracle
Highway Superintendent*

Fog seal is a single application, typically light, of emulsified asphalt sprayed onto an existing asphalt surface. This type of maintenance treatment can be valuable to renew weathered (oxidized) asphalt surfaces and seal minor cracks and voids to improve the pavement's ability to keep water from penetrating the base course or sub-grade and to reduce raveling. Additional benefits of fog seal include less stone loss in the future on chip-seal roads, improved visibility of the striping at night making nighttime travel much safer, ice and snow melts faster because the road surface heats up more quickly on a sunny day, and preserves our investment in reducing road maintenance costs.

The pavement must be prepared prior to applying the asphalt emulsion and should be dry and clean. Repairs or reconditioning work should be completed prior to fog sealing. The application rate is the key to a successful fog seal and ranges from 0.05 to 0.15 gallon per square yard. Recommended surface temperatures need to be at least 50° or higher with a spray temperature of 125° to 160°. Cooler temperatures require a longer curing time therefore delaying opening the roadway to traffic.



United Way 2019 Campaign

**United
Way**



Thanks to your efforts we were able to raise a total of \$1,561. Many local charities will benefit from your generosity over the next year. **Thank you** to all the employees that donated! The winners of the gift cards went to Scott Coleman and Mark Hilty.

Thank you Michaela for running a successful Campaign!

**United Way
of Logan County**

Bridge 28-4.21 Completed

*By: Michael Kerns P.E.
Assistant Engineer*

Remember the May 17th flooding that wreaked havoc across Logan County? That havoc included the ripping out of BR 28-4.21, a 12'-11" span structure located south of Pickrelltown between TR164 and CR29. For visitors of the site, it's hard to imagine how such a small creek would be capable of taking out such a large structure—it's also evidence for just how powerful and dangerous major rain events can be.

After surveying the site, performing a hydraulic analysis, and analyzing cost estimates for a few proposed structure types, it was determined that the best replacement structure would be a precast reinforced concrete four-sided box with a 15'-0" span by 9'-6" rise with precast wingwalls.

After bidding process was complete and a delivery date for the structure was established by the winning bidder (MACK Industries), the Bridge Crew was able to use the delivery date as a reference point for when to begin site work in order to have the site ready for the new structure. This included excavation, setting a gravel bedding to proper grade, laying out where the structures will go and preparing a bearing pad for the crane. On November 6th, the precast structures for BR 28-4.21 were delivered and installed. The installation day began with many trucks delivering the All-Crane crane and its counterweights. After the crane was setup, the precast structures arrived and were set in place. Once in place, the boxes were joined together with the JB Pipepuller.

After this installation day was over, there were about three weeks worth of work to perform consisting of earthwork, concrete work and roadway work. Members from both the Bridge Crew and Road Crew worked together to complete these tasks as quickly as possible and, despite weather delays, the road was able to be open for Thanksgiving weekend.



Ditch Maintenance & Traffic Department

By Steve Tracey
Ditch/Traffic Superintendent

The Ditch Department has recently finished up the 2019 mowing season and all maintenance ditches have been mowed and sprayed. Currently we have completed a tile repair on the Emery ditch, completely re-did the upper end of the Bokengehalas Ditch which was due to damage from the spring floods. Crews have just recently removed beaver dams and a log jam on the Hankinson Ditch. During the winter months the crew will operate the "buzzbar" to trim tree limbs in areas that create sight distance problems or limbs that could cause damage to vehicles.

The Sign Department over the summer has installed new weight limit signs and posts on several different bridges throughout the county. This is for the new oversized emergency vehicles. Currently the Sign Department is finishing up measuring and identifying culverts for inventory purposes. In addition to this work we are currently maintaining over 7,000 signs and working with Townships and Villages on shared services.

WEIGHT LIMIT	
	10T
	14T
	18T
	22T
	40T
6+AXLES	28T

Map Room

By Suzie Cochran
Map Room Supervisor

In 2019, the Map Room Staff checked legal descriptions on 2,770 real estate documents. There were 2,099 deeds, 485 Affidavits, 63 Certificates of Transfer, 92 easements and 31 land contracts. Additionally, 1 annexation plat was filed and recorded along with 4 condominium plats, one subdivision plat and one new road dedication plat. Two streets were vacated along with 12 Lots. New property splits totaled 291 for the year with 75 additional documents being recorded with new survey descriptions.

Surveyors submitted 295 new surveys that were reviewed, approved, indexed, scanned and filed by the Map Room personnel. In addition, 105 house numbers were entered into the 911 system. A total of 1,487 parcels were adjusted on the maps to reflect the new property splits and surveys.

In addition to providing monthly updates to the Engineer's Office, the Map Room sends updates to the Auditor's Office, Sheriff's Department, OUPS, State of Ohio GIS support, Health Department, Logan County Farm Services, Bellefontaine City Code Enforcement, Indian Lake Water Pollution Control and Pictometry.

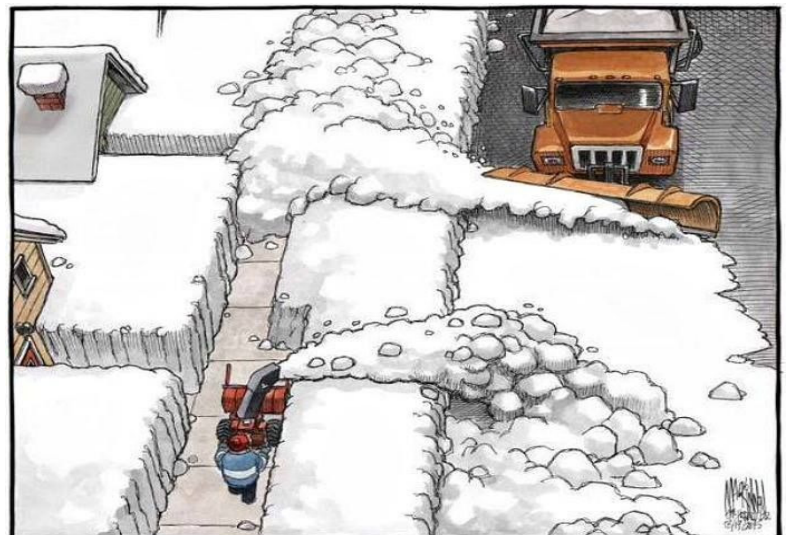
The records of the Map Room can be found on the Logan County Engineer's Office website at: www.lceo.us.

KEEP KIDS SAFE THIS WINTER



Kids love to play in the snow!

Make sure they know not to play in or on snow piles and to always watch for snow removal equipment on streets and in parking lots.



*By Mark Hilty
General Superintendent*

A clean shop is a safe shop

When you stop and think about it, our shop is the heart of our operations. It is where we meet, plan, and execute our daily activities. It is also where our maintenance technicians fix and maintain our fleet of trucks and equipment. Keeping the shop clean and organized is everyone's responsibility and makes it a nicer environment to work in but can also be a safer area to work in.

Here are some steps to help maintain a clean, organized, and safe shop.

Reduce slips, trips and falls:

- Keep floor as clean and dry as possible
- Clean up any spills as they happen
- Roll up hoses and electrical cords when not in use
- Keep isle way in front of plows clear
- Pick up and put away tools when finished using them

Eliminate eye injuries :

- Wear safety glasses at all times in shop
- Full face shields are recommended for grinding
- Use welding screens when others are around the shop

Fire hazards:

- Make sure gas and other flammable materials are returned to fire cabinet
- Keep trash and flammable materials away from welding/cutting areas
- Know where fire extinguishers are

Wash bay safety and maintenance:

- Wear safety glasses
- Get bulk of material off outside
- Wash any mud off outside
- All tar should be washed off outside
- After snow events clean entire wash bay including catch basins
- Roll up all hoses

**Taking these simple steps can ensure that everyone can have a safe, clean shop to work in.
Thanks for all you do!**

New Hires, Milestones and Promotions

*By Donna Dahlke
Personnel Specialist*



Joining our organization as a Highway Technician I is James Jones. **Welcome James!**

Nine employees reached employment milestones this year. Congratulations to Shirley Brunke and Curt Dill –40 years; Scott Coleman and Suzie Cochran—25 years; Jayma Burkhammer and John Spencer-20 years; Michaela Brunke and Greg Dappert-15 years and Chris Hackley-5 years.

Thank you for your dedication and service.

FEMA Flood Insurance Rate Map Update

By Scott C. Coleman P.E. P.S.

In March of 2014, the Ohio Department of Natural Resources (ODNR) and Federal Emergency Management Agency (FEMA) notified Logan County officials that they had updated the base flood elevation (BFE) and Flood Insurance Rate Map (FIRM) for Logan County.

- July 2014, ODNR and FEMA held public meetings to present the revised flood maps to the public.
- March 6, 2015 Logan County filed an appeal of the preliminary maps.
- August 31, 2016, FEMA approved our request to adjust the BFE of Indian Lake from 997.6 feet to 997.5 feet (NAVD88).
- September 2016, the Logan County Commissioners requested that the new BFE of 997.5 feet be incorporated into the new FIRM.
- In December, 2017, the County Commissioners contracted with DLZ Engineering to complete high accuracy surface modeling of the Indian Lake area that provides the county with very good elevations of the lakefront and surrounding properties. The commissioners plan to proceed with appealing the preliminary FIRM maps and submit our high accuracy surface model to be included in a final FIRM update.
- FEMA is currently incorporating the County's surface model data and should be providing updated maps for review in the next few weeks.
- It is estimated that new flood insurance rate maps will be effective in summer of 2021.

The County Commissioners and County Engineer continue to advocate on behalf of our residents for accurate Flood Insurance Rate Maps.

** FEMA does not reimburse landowners for elevation certificates that result in a Letter of Map Amendment (LOMA). However, landowners may be eligible for reimbursement of flood insurance premiums.*

On-line Project Bidding Update

*By Todd Bumgardner
Administrative Coordinator*

As our office ends 2019 with year end inventory, billings and receivables we are also looking toward 2020. As usual the upcoming year starts with budgeting, roadway planning and equipment needs. However, 2020 will also bring about a long discussed update to our bidding process. We have finalized our discussions and training with the experienced staff of Bid Express. Since 1997 Bid Express (parent company Infotech) has provided a secure internet bidding and proposal service that manages construction and general procurement solicitations for government agencies. With some set up time on our part we will be able to have the following benefits in hand:

- Receive digitally-signed bids and proposals on-line - Bids are sealed, secure and include bid bond verification.
- Minimize discarding bids with mistakes - No more throwing away the low bid due to a technicality.
- Get instant bid tabs, ranked results, exportable reports - Open bids with a quick click and access easy-to-read screens and reports with the details.
- Reduce paper waste - Stop printing bid packets and plans, guessing how many you'll need and throwing away the waste.

Ohio Department of Transportation has made this service available to government agencies throughout the state at no cost to the locals, such as the Logan County Engineer's Office. In 2020 our office is currently looking to utilize Bid Express for 3 projects as a trial. Pending the results of these trial projects we will decide how to proceed with on-line bidding going forward.

Bridge Crew Update

By: Dan McMillen

Bridge Superintendent

The Bridge Crew has had a very busy fall as we've finished repairing the storm damage caused by this spring's storms. Bridge 28-4.21 was the last of these structures to be fixed and required a total replacement.

Another structure that needed repair was Bridge CR 32-7.60 (between CR 13 and SR 47), which had timber piling exposed on the south side during the May/June flooding events. To fix this, the Bridge Crew set up formwork and poured concrete around the exposed timber piling. In addition, they performed channel work and placed rock channel protection on both sides of the bridge. All of this was done to help keep the bridge structurally sound and help protect the bridge from future flooding events. Before and after photos of the south side abutment are below.



All in all there were 21 structures, both bridges and culverts, that sustained damage (one of those 21 includes the total destruction of BR 28-4.21) in the May/June storm events. Final roadwork on BR 28-4.21 was completed in the first week of December thus marking the conclusion of all necessary rehabilitation and replacement work due to the storm events. Here are the approximate material totals reported by the Bridge Crew for all storm events:

- 225 loads of debris (i.e corn fodder) from bridges and ditches
- 24 yards of controlled density fill (low strength concrete)
- 1,000 ton of dump rock
- 1,600 ton of No. 304 gravel
- 100 ton of No. 310 stone