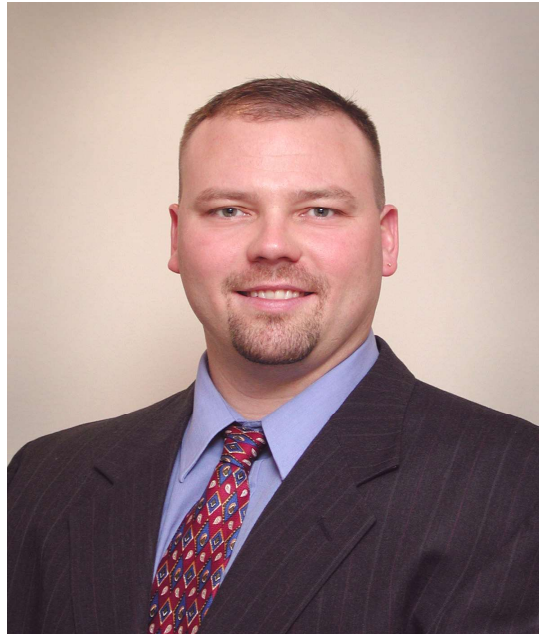


**OFFICE OF THE  
LOGAN COUNTY ENGINEER**

**2021 ANNUAL REPORT  
2021-2022 ROAD REVIEW**

*April 1, 2022*



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



Bridge 174-0.56  
over the Onion Ditch



McColly Covered Bridge 13-1.56  
over the Great Miami River

<b>TABLE OF CONTENTS</b>	
Employees of the Logan County Engineer's Office	2
Message from your County Engineer	3
Condition of our Highway System	4
2021 Revenues	5
Sales Tax Balance Sheet	5
2021 Expenditures	6
2021 Major Equipment Purchases	6
2021 Road Program	7-8
2022 Road Program	9
2021 Bridge Program	10
2022 Bridge Program	10
Administrative/Staff Support	11
Design/Engineering	11
Traffic Department	11
Courthouse Duties	11
Executive Summary	12
2021 Motor Vehicle Registrations	12

<b>EMPLOYEES OF THE LOGAN COUNTY ENGINEER'S OFFICE</b>		
<b>County Engineer</b>		
Scott C. Coleman, P.E., P.S.		
<b>Engineering Department</b>		
Michaela Brunke Misty Centers Michael Kerns, P.E.	Shirley Brunke Greg Dappert	Todd Bumgardner Curtis D. Dill, P.S. Jonathan Parthemore
<b>Map Room</b>		
Jayma Burkhammer	Suzie Cochran	Jonathan Parthemore
<b>Highway Department</b>		
Chris Hackley Jim Jones Dan McMillen John Spencer Todd Wisse	Trent Helmlinger Bryan LeVan Troy Pursely Derek Thurman	Mark Hilty Chris Loudermilk Joe Rose Jodi Walker TJ Yoder
<b>Ditch Department</b>		
Allen Campbell Dick Sidders	Greg Kennaw Greg Swonguer	Tony Ransbottom Steve Tracey
<b>Bridge Department</b>		
Andrew Farris Michael Moon	Elliott Fullerton	Luke Jolliff Tracy Prater
<b>Traffic Department</b>		
Mark Dearwester		

## Logan County Engineer's Office

April 1, 2022

To the Honorable Board of the Logan County Commissioners and the Citizens of Logan County:

The following pages contain our Annual Report for 2021. On the back page, the reader will find a breakdown of the road miles, the number of bridges in our system, and the number of signs and culverts that we maintain. Also included in this report is what we accomplished in the year 2021 and what we plan to accomplish in 2022.

In 2021 we resurfaced 21.8 miles of county highways, chip-sealed 63 miles, fog sealed 16 miles of county highways, replaced 1 bridge and slip lined 1 large culvert and 12 standard culverts. We assisted the Township Trustees with the resurfacing of 2.87 miles of roads and chip-sealing another 13 miles, and repairing 1 large box culvert.

We saw a significant increase in salt prices for the 2021-2022 winter season. In the 2020-2021 season, we paid \$62.45 per ton for road salt and entered winter with a full stockpile. The road salt bid for 2021-2022 winter fill was \$70.38 per ton. Due to dramatically fluctuating prices from year to year, we have become more efficient and effective in how we utilize our labor and materials in clearing roadways of snow and ice. We have pre-wetting systems installed on all of our front line trucks to increase our available options for treating roadways. We have implemented the use of Beet Heet® sugar beet molasses for pre-wetting our salt at the rear auger. This product increases our ability to melt ice at lower temperatures. Our overall snow and ice control costs for calendar year 2021 were \$465,810.03 and were above our average winter costs of \$400,000.

We thank the citizens of Logan County for their continued support and renewal of the 1/2% sales tax which allowed us to continue upgrading our transportation infrastructure. Sales tax revenue increased by 11.4% in 2021. Motor vehicle fuel tax revenue increased by 3.47% and automobile registration fees increased by 7% in 2021. The Logan County Engineer's Office has been aggressively seeking grant funds to supplement our regular funding and sales tax funding. In 2021, we received a total of \$1,388,793.51 in grant funds. The grants funded Bridge 21-1.00 bridge replacement, road resurfacing, guardrail replacement and sign upgrades.

The 1/2% sales tax for roads and bridges generated \$4,099,501.19 in 2021. The County portion totaled \$2,049,750.63 and the Township portion totaled \$819,900.24. The total municipal sales tax collections were \$819,900.22 and were shared among Bellefontaine and the villages based on population. Total sales tax expenditures were \$1,626,193.72 for County projects and \$456,278.68 for Township projects. The County Engineer's Office expended \$2,491.41 in 2021 to develop, administer and perform inspections for the township paving and chip-sealing.

The Logan County Engineer's Office has been implementing shared services for many years and continues to expand them. We have performed roadside mowing, roadside spraying, sign inspections, township sign replacement, sign post driving, painting railroad crossing warnings, setting back mailboxes, roadside ditching, boom mowing of roadside vegetation, pavement repairs, small paving projects, small chip seal projects, roadway shoulder stabilization, guardrail repair/replacement, dura-patching, and culvert replacements for a few townships and villages. This is a mutually beneficial process where we can save the townships and villages money and offset some of our labor and equipment costs. We work with the City of Bellefontaine, villages, townships, County Commissioners, adjacent counties, and ODOT for shared services to better serve our community.

We have been working with our state legislators for the past several years to develop a long term funding source for Ohio's local roads and bridges. Thanks to Governor Mike DeWine and the state legislature for passing the motor vehicle fuel tax increases in 2019. This will go a long way to fix the statewide shortfall in local highway funding. 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 2019. In 2020, we received \$3,614,207.26 from motor fuel tax. In 2021, we received \$3,739,694.30 from motor fuel tax. The 2021 receipts are approximately \$1.3 million more than we received in 2018, which is less than the projected increase of \$1.5 million, but Ohio has experienced a significant decrease in fuel sales due to the Covid 19 shutdown/restrictions. Overall, this means that the new fuel tax is not adequate to replace our local sales tax for roads and bridges. Please encourage our Ohio Representatives and Senators to work toward additional funding solutions to provide adequate highway infrastructure funding for local jurisdictions. Temporary reduction of the fuel tax is not a solution for increased fuel prices due to production issues and international conflicts. We must preserve the fuel tax for funding of county, township, and municipal roads and bridges.

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

## **The Condition of Our Highway System**

We have experienced a mild winter season as far as snow and ice control costs and overall road damage has been minimal. Temperatures have been varied this season. We have experienced frost heaving and pavement damage on a few roads throughout the winter season. We still encourage our residents and neighbors to try to reduce loads or delay hauling operations during the wettest weeks of the year (generally March through May). Additionally, we ask that local industry and trucking companies utilize proper haul routes when travelling through the county. Overall, our county roads are showing below normal signs of damage through this winter.

In 2022, we plan to resurface 15.8 miles of roads, chip-seal approximately 53 miles, and fog seal 25 miles. In order to preserve our new pavements as long as possible, we must seal them as soon as we can after resurfacing. This year we will again be able to seal the new resurfacing within weeks after the roads are paved. Results over the past few years indicate that this process has been very cost effective and improves pavement performance. This year we will continue to work with the asphalt supplier to develop a low volume traffic mix design to provide a longer lasting and more resilient pavement. We have completed the surface course of paving on all county roads and will continue building thickness and strength with this year's resurfacing program. From 2003 through 2005, we placed only the intermediate course of pavement on many of the roads that were resurfaced. This process allowed us to repair more miles of very poor pavements each year than we could have if we had applied both courses at the same time. Since 2001 (inclusive), we have repaved over 552 centerline miles on the county highway system. We will also continue our crack sealing program to extend the service life of the roads in the county.

We continue to make strides with our bridge program. We are continuing to upgrade our overall bridge conditions with the replacement of 1 bridge, slip lining of 1 large culvert, and repair of 4 bridges. We have two bridges with weight restrictions affecting school buses. The historic iron truss (bridge 21B-0.05) over the Great Miami River is closed to traffic, but it has been bypassed by the new two lane Chester R. Kurtz Bridge. We have applied for federal funding for the rehabilitation of this bridge and hope to receive approval in May of 2022 for construction in 2024.

There are 24 bridges with posted load restrictions. Four of these are posted only for emergency vehicles (EV) which include overweight fire tankers and ladder trucks. Thirteen bridges are rated a 5 or less and many of the older structures continue to deteriorate as we replace others. Since 2001 (inclusive), we have replaced or performed rehabilitation on 131 structures. Bridge material costs have increased significantly over the last several years. In 2001, we were estimating replacement costs at \$48.00 per square foot of deck area, now we must use at least \$200 per square foot for estimating our bridge program.

Since the force account limits for projects that we can construct with our own staff were increased in 2003, construction material costs have increased between 44 and 220 percent. We must encourage the state legislature to increase the force account limits for roads and bridges so that we can continue to save the taxpayers' money by constructing road and bridge projects with our own crews. The current force account limits are \$100,000 per bridge and \$30,000 per mile for road construction. Considering the increased construction costs and the fact that there is some debate over the interpretation of the force account legislation, these limits need to be increased to \$310,000 and \$150,000, respectively, with an annual inflation factor.

## **Petition Ditch Maintenance**

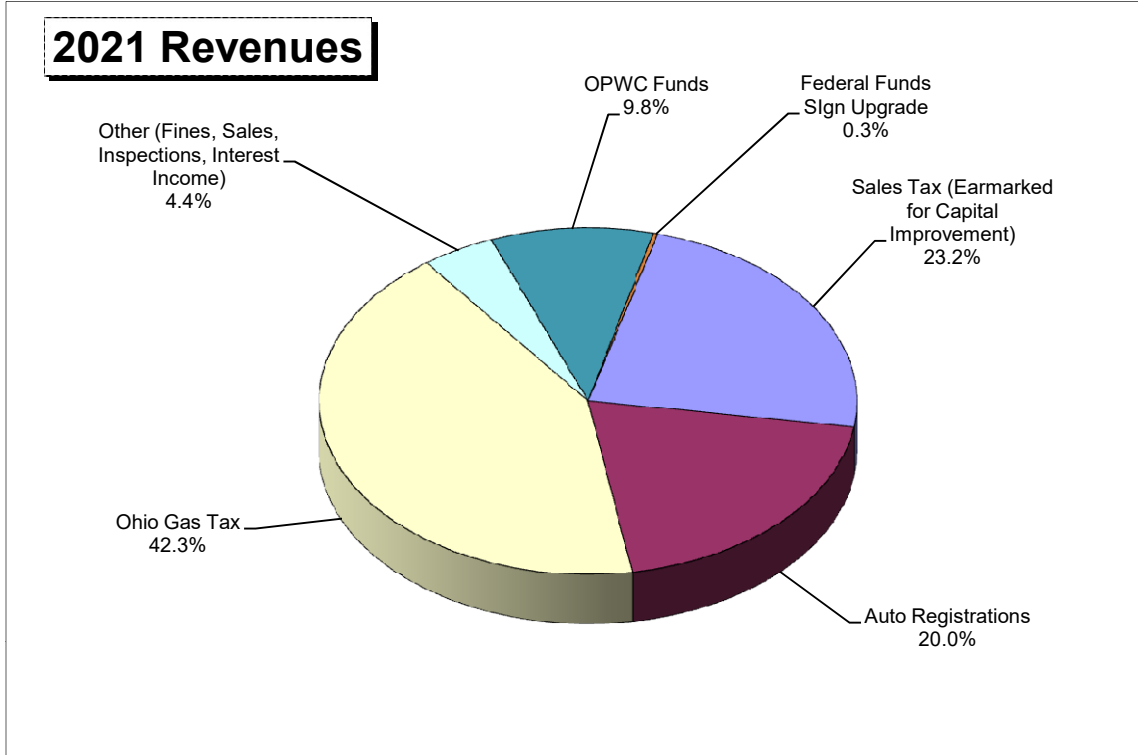
The ditch department maintains 46 maintenance ditches. These ditches consist of 38.00 miles of open waterway ditches, 15.57 miles of tile and 7.4 miles of grassed waterways, totaling 60.97 miles of maintained ditches

In 2021, some level of maintenance was performed on every ditch. General maintenance includes mowing, spraying, center dipping for improved flow, crossing repairs, bank slip repairs, erosion control, tile repairs, and removal of log jams.

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

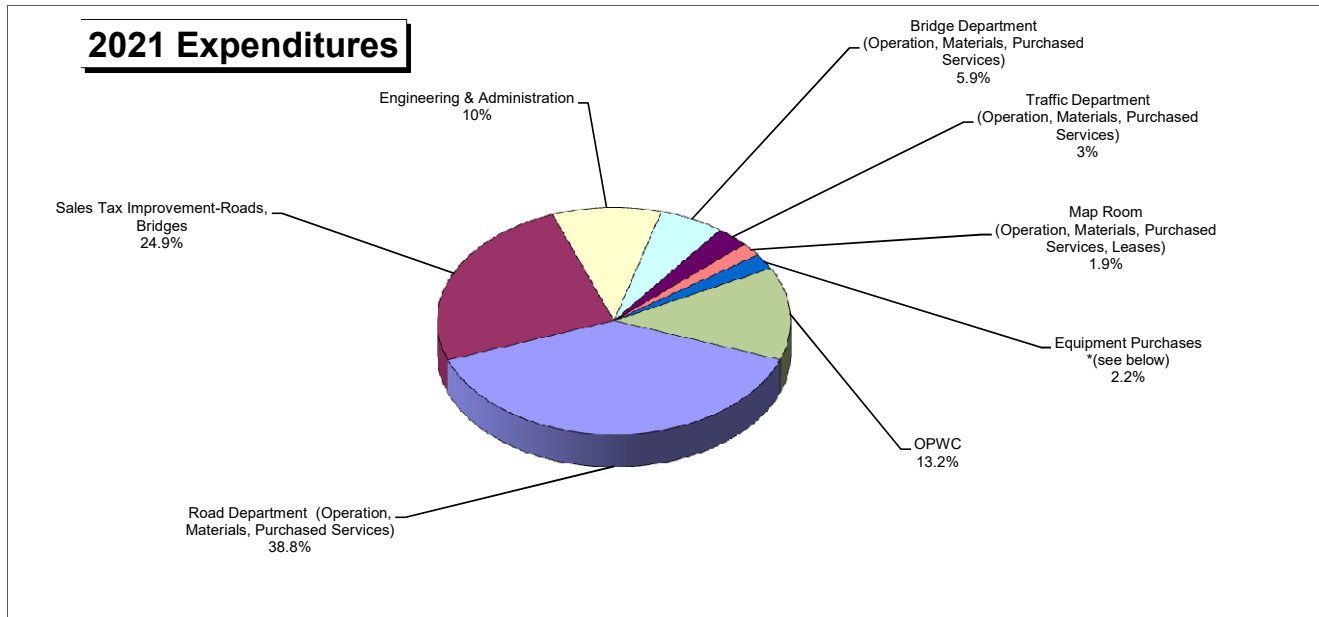
2021 Revenues		
Sales Tax (Earmarked for Capital Improvement)	23.2%	\$ 2,049,750.63
Auto Registrations	20.0%	\$ 1,766,425.07
Ohio Gas Tax	42.3%	\$ 3,739,694.30
Other (Fines, Sales, Inspections, Interest Income)	4.4%	\$ 389,183.62
OPWC Funds	9.8%	\$ 861,913.00
Federal Funds* - Sign Upgrade	0.3%	\$ 24,000.00
Belle Center Amish Church Community - Voluntary Contribution	0.0%	\$ 4,025.00
<b>Total</b>		<b>\$ 8,834,991.62</b>

\*Federal Funds Revenue does not include direct pay to contractors



2021 Sales Tax	
County Carryover from 2020	\$ 783,943.62
Township Carryover from 2020	\$ 898,967.82
<b>Income - County 2021</b>	<b>\$ 2,049,750.63</b>
<b>Income - Township 2021</b>	<b>\$ 819,900.24</b>
<b>Expenditures</b>	
Township resurfacing, chip-seal, rejuvenating sealer, Richland Twp. Concrete repairs	\$ 456,278.68
County resurfacing and rejuvenating sealer	\$ 1,448,892.96
Bridges 21-1.00, 166-2.44	\$ 177,300.76
<b>2021 County Carryover</b>	<b>\$ 1,207,500.53</b>
<b>2021 Township Carryover</b>	<b>\$ 1,262,589.38</b>
<b>Total Carryover</b>	<b>\$ 2,470,089.91</b>

2021 Expenditures		
Road Department (Operation, Materials, Purchased Services)	38.8%	\$2,532,134.35
Sales Tax Improvement-Roads, Bridges	24.9%	\$1,626,193.72
Engineering & Administration	10.0%	\$650,641.62
Bridge Department (Operation, Materials, Purchased Services)	5.9%	\$385,007.50
Traffic Department (Operation, Materials, Purchased Services)	3.0%	\$193,702.70
Map Room (Operation, Materials, Purchased Services, Leases)	1.9%	\$124,961.94
Equipment Purchases* (see below)	2.2%	\$142,743.66
Capital Improvements	0.0%	\$1,231.47
OPWC (including local matching funds)	13.2%	\$861,913.00
<b>Total</b>		<b>\$6,518,529.96</b>



*Major Equipment Purchased in 2021	
Computer and Phone System Equipment	\$554.37
New Desktop Workstation	\$884.94
Time Clock and Tape Upgrade	\$419.75
Javad Motherboard and Shell Upgrade	\$7,736.00
Prewet System	\$3,000.00
2020 Police Interceptor Cruiser, Sheriff's Office	\$43,723.00
Spreader / Road Widener Box - Used	\$40,000.00
Traffic Counters	\$4,430.00
Ford F450 Dump Truck & Plow - Used	\$39,850.00
Undercoating HP Pump & Equipment	\$2,145.60
<b>Total</b>	<b>\$142,743.66</b>

**2021 ROAD PROGRAM**

The Highway Department is responsible for all Force Account projects (non-contract work performed by County Engineer employees), snow and ice control, berm repair, pavement patching, washout repairs, guardrail repair, mowing, and other general/seasonal maintenance of county roads and bridges. This department also works closely with the townships on various maintenance needs on their road systems. The Highway Department was extremely busy in 2021, working ahead for the 2022 road program in addition to their normal maintenance duties. The costs listed include labor (based on hourly wages of workers and all benefits), amortized equipment, and materials (asphalt and berming stone).

<b>Review of Miscellaneous 2021 Expenses</b>				
	Labor	Amortized Equipment	Materials and Contractor Work	Total
Mowing	\$ 97,970.87	\$ 110,525.92	\$ -	\$ 208,496.79
Roadside Spraying	\$ 10,799.73	\$ 3,654.79	\$ 8,155.16	\$ 22,609.68
Durapatching	\$ 18,231.68	\$ 20,999.09	\$ 16,137.47	\$ 55,368.24
Crack Sealing	\$ 41,023.06	\$ 2,822.16	\$ 27,984.00	\$ 71,829.22
Tree & Brush Removal	\$ 54,380.49	\$ 35,229.06	\$ 18.50	\$ 89,628.05
Culvert Repair & Replacement (not related to resurfacing)	\$ 21,391.00	\$ 16,654.72	\$ 13,611.77	\$ 51,657.49
Sign Repair	\$ 5,814.85	\$ 3,545.65	\$ 4,128.23	\$ 13,488.73
Sign Repair (Vandalism)	\$ 2,958.70	\$ 1,911.87	\$ 2,994.07	\$ 7,864.64
Snow and Ice Control	\$ 103,976.27	\$ 110,544.31	\$ 251,289.45	\$ 465,810.03

<b>2021 County Paving Program Completed Sales Tax</b>			
ROAD #	Begins	Ends	Total Cost
CR 2	CR 5	Logan/Union Co. Line	\$ 724,749.12
CR 20	CR 118 Rushcreek Twp.	CR 12	\$ 234,935.44
CR 63	E. Corp. Line Quincy	TR 256 S. Corp. Line DeGraff	\$ 237,596.39
		Temp. Pavement Marking	\$ 1,950.00
		<b>Grand Total</b>	<b>\$ 1,199,230.95</b>

2021 County Chip and Seal Program Completed						
Road	Begins	Ends	Labor	Equipment	Materials	Total
235	SR 540	SR 540				
235A	SR 540	Bellefontaine WCL	\$ 1,778.32	\$ 1,796.69	\$ 3,523.53	\$ 7,098.54
25	SR 540 resume	SR 47 resume				
25	SR 47 resume	TR 136 E				
25	TR 136 E	TR 57 W	\$ 4,933.49	\$ 4,589.68	\$ 38,769.80	\$ 48,292.97
25	TR 57 W	CR 9				
124	CR 142	CR 26				
124	CR 26	Logan-Union Co Line	\$ 2,380.20	\$ 2,404.21	\$ 14,506.53	\$ 19,290.94
12	SR 47	CR 26 W				
12	SR 47	CR 26 W				
12	CR 26 W	CR 26 E				
12	CR 26 E	CR 20				
12	CR 20	CR 48 E				
12	CR 48 E	CR 50 suspend	\$ 12,244.46	\$ 11,248.72	\$ 98,133.97	\$ 121,627.15
12	CR 50 resume	CR 265 Big Springs				
12	CR 265 Big Springs	TR 116 S				
12	TR 116 S	TR 115 N				
12	TR 115 N	SR 292 End				
20	CR 12	SR 292				
20	SR 292	CR 120				
20	CR 120	Penn Central RR	\$ 5,393.65	\$ 5,227.02	\$ 56,739.68	\$ 67,360.35
20	Penn Central RR	CR 142				
20	CR 142	Logan-Union Co Line				
118	CR 9	CR 20 N				
118	CR 20 N	CR 5	\$ 2,520.31	\$ 2,140.73	\$ 20,877.19	\$ 25,538.23
5	CR 50 E	E. Corp Rushsylvania				
50	CR 5 & TR 110 N	TR 137 N				
50	TR 137 N	CR 12 S				
50	CR 12 S	CR 12 N	\$ 4,855.90	\$ 4,334.52	\$ 54,860.65	\$ 64,051.07
50	CR 12 N	TR 116 N				
50	TR 116 N	TR 267 N				
50	TR 267 N	SR 292				
113	US 68	CR 112 N	\$ 2,472.82	\$ 2,035.37	\$ 20,316.47	\$ 24,824.66
113	CR 112 N	W. Corp Rushsylvania				
112	CR 113	CR 111 W / TR 111 E	\$ 1,059.58	\$ 942.53	\$ 9,405.39	\$ 11,407.50
111	CR 101 & CR 113	US 68	\$ 4,187.58	\$ 3,428.53	\$ 23,530.57	\$ 31,146.68
111	US 68	CR 112 S & TR 112 N				
98	CR 38 E & S	TR 96	\$ 1,065.00	\$ 1,055.80	\$ 12,372.71	\$ 14,493.51
98	TR 96	CR 254				
254	CR 98	CR 38 E & TR 38 S	\$ 1,129.32	\$ 1,048.50	\$ 14,851.45	\$ 17,029.27
96	SR 117	Penn Central RR	\$ 2,650.47	\$ 2,486.50	\$ 24,798.72	\$ 29,935.69
96	Penn Central RR	CR 97				
38A	SR 366	CR 38				
38	SR 366	CR 98 W	\$ 2,794.20	\$ 2,447.47	\$ 11,560.10	\$ 16,801.77
38	CR 98 W	CR 96 suspend				
39	TR 56 E	CR 37 W & TR 37 W				
39	CR 37 W & TR 37 W	CR 274 Cherokee				
39	SR 274 Cherokee	CR 222 W	\$ 3,546.36	\$ 3,278.58	\$ 19,400.03	\$ 26,224.97
39	CR 222 W	TR 108 E				
39	TR 108 E	TR 100 W McArthur & Richland Line				
91	SR 235	CR 54 Lewistown	\$ 2,156.13	\$ 1,732.98	\$ 16,257.28	\$ 20,146.39
21	CR 24	TR 78	\$ 3,948.52	\$ 3,346.78	\$ 15,274.75	\$ 22,570.05
TR 21	SR 47	CR 24				
23	CR 74 E	SR 47				
23	SR 47	DT&I RR	\$ 4,342.50	\$ 3,604.50	\$ 31,983.24	\$ 39,930.24
23	DT&I RR	TR 76 E				
23	TR 76 E	TR 78 W				
23	TR 78 W	TR 78 E				
23	TR 78 E	CR 58 suspend				
34	SR 235	CR 73 W				
34	CR 73 W	TR 74 E Miami & Pleasant Twp				
34	TR 74 E Miami & Pleasant Twp	DT&I RR	\$ 8,854.13	\$ 8,020.45	\$ 60,946.90	\$ 77,821.48
34	DT&I RR	CR 74 W				
34	CR 74 W	SR 47				
34	SR 47	TR 76				
34	TR 76	CR 77 E				
34	CR 77 E	TR 78				
34	TR 78	CR 58				
34	CR 58	CR 59				
275	CR 87 LT/TR 87 R	End Road	\$ 918.93	\$ 896.42	\$ 3,013.78	\$ 4,829.13
18	TR 45 W	TR 198 N				
18	TR 198 N	TR 187 S	\$ 1,724.42	\$ 1,664.10	\$ 17,232.55	\$ 20,621.07
18	TR 187 S	CR 43 W				
173	CR 5	CR 47	\$ 2,485.22	\$ 2,417.41	\$ 14,279.80	\$ 19,182.43
41	Logan- Champaign Co Line CR 28	SR 287	\$ 1,429.97	\$ 1,270.69	\$ 12,192.45	\$ 14,893.11
154	CR 10	SR 347	\$ 865.17	\$ 746.31	\$ 4,843.02	\$ 6,454.50
277	Logan- Union Co, Line	CR 44 SW	\$ 1,379.68	\$ 1,315.51	\$ 11,363.96	\$ 14,059.15
277	CR 44 SW	CR 153				
28	Top Corkscrew Hill	CR 291	\$ 3,077.15	\$ 2,531.29	\$ 16,298.32	\$ 21,906.76
153	SR 287	TR 157				
153	TR 157	CR 277	\$ 3,384.96	\$ 3,131.49	\$ 33,458.68	\$ 39,975.13
153	CR 277	Union Co. Line				
<b>Total Chip &amp; Seal Program</b>			<b>\$ 87,578.44</b>	<b>\$ 79,142.78</b>	<b>\$ 660,791.52</b>	<b>\$ 827,512.74</b>



### 2022 TENTATIVE ROAD PROGRAM

We have reviewed each road on the program for needed culvert replacements, bridge replacements and/or repairs, drainage problems, etc. As of March 1, 2022, the proposed resurfacing and chip-seal programs for the County are as follows:

2022 Proposed County Sales Tax Resurfacing Program					
Road #	Begins	Ends	Road #	Begins	Ends
102	CR 103 E	Logan-Hardin Co. Line	35	SR 235	TR 74 W Miami/Pleasant Twp Line
104	SR 273	Logan-Hardin Co. Line	35	TR 74 W Miami/Pleasant Twp Line	TR 75 E
54	SR 720	CR 52 W / TR 52 E	35	TR 75 E	SR 47 (suspend)
54	CR 52 W / TR 52 E	TR 240 E	64	Logan-Champaign Co. Line	TR 295
54	TR 240 E	SR 274	64	TR 295	TR 71 W
54	SR 274	TR 80 W	64	TR 71 W	CR 63
54	TR 80 W	CR 60 SW	4	RR	CR 70
40	SR 274	TR 114 N	4	CR 70	Shelby CR 18 W
40	TR 114 N	TR 115	4	Shelby CR 18 W	Center Miami River - Shelby Co. Line
40	TR 115	SR 292	3	CR 4 Shelby Co. Line	End of Logan Co. Miant.

Note: Some sections of roads may be non-performed in order to stay within budget.

2022 PROPOSED COUNTY CHIP SEAL PROGRAM					
Road #	Begins	Ends	Road #	Begins	Ends
173	CR 5	CR 47	142	CR 10	TR 141 W
187	TR 7	TR 197	142	TR 141 W	CR 2
187	TR 197	SR 508	142	CR 2	TR 133 E
5	N. Corp Rushsylvania	TR 111 W	142	TR 133 E	S Corp. Line W. Mansfield
5	TR 111 W	TR 51	142	N Corp. Line W. Mansfield	TR 123 E
5	TR 51	SR 273	142	TR 123 E	CR 124 NE
5	SR 273	Logan-Hardin Co. Line	142	CR 124 NE	CR 26
13	CR 21 Bloomfield Twp	TR 79 E	142	CR 26	CR 20
13	TR 79 E	TR 59 S	142	CR 20	CR 48
13	TR 59 S	TR 247 SW	142	CR 48	CR 117
13	TR 274 SW	SR 235 Enter (suspend)	265	SR 274 Big Springs	CR 12
13	SR 235 Leave (resume)	TRV 214 N	271	Dead End	SR 292
13	TR 214 N	TR 33	291	Valley Hi Corp Line	CR 28
13	TR 33	TR 31 & Penn Central RR	1	SR 287	1400' N SR 287
13	TR 31 & Penn Central RR	TR 46 S	29	TR 55	CR 5 suspend
13	TR 46 S	TR 46 N	5	N Corp Line Zanesfield	3800' N CR 2
13	TR 46 N	CR 32	10	TR 55	US 33
13	CR 32	CR 130	10	US 33	4700' E Zanesfield Corp
54	CR 60 SW	SR 235	153	Zanesfield Corp	US 33
21	TR 78	CR 58	105	CR 39 New Richland	CR 49
21	CR 58	CR 59 W / TR 59 E	105	CR 49	Entrance Northwood Stone
21	CR 59 W / TR 59 E	CR 13 E	105	Entrance Northwood Stone	CR 106 Northwood
21	CR 13 E	CR 60 Bloom Center	113	CR 101 & CR 111	SR 638 enter
21	CR 60 Bloom Center	TR 80	113	SR 638 leave	US 68
21	TR 80	SR 274	60	Logan-Shelby Co. Line	TR 23
35	CR 59 resume	CR 60	60	TR 23	TR 34 S
35	CR 60	SR 274	60	TR 34 S	CR 35
222	E Corp Line Huntsville	CR 39	60	CR 35	TR 53 N
97A	CR 97	SR 273	60	TR 53 N	TR 53 S
97	CR 39 New Richland	CR 259 E	60	TR 53 S	CR 21 Bloom Center
97	CR 259 E	CR 96 W	60	CR 21 Bloom Center	TR 79 S
97	CR 96 W	SR 273	60	TR 79 S	CR 54 End
97	SR 273	Begin TR 97	59	Logan-Shelby Co. Line	TR 213 S
101	CR 49	TR 109 E	59	TR 23 S	TR 23 N
101	TR 109 E	SR 638 Northwood	59	TR 23 N	TR 34 N
101	SR 638 Northwood	CR 111 & CR 113 E	59	TR 34 N	CR 34 S
101	CR 111 & CR 113	TR 107 N	59	CR 34 S	CR 35 N
101	TR 107 N	CR 51 E / TR 51 W	59	CR 35 N	TR 35 S
51	CR 101 SW	US 68	59	TR 35 S	TR 53 N
26	CR 12 resume	SR 292	59	TR 53 N	CR 21
26	SR 292	CR 120 N	58	Logan-Shelby Co. Line	CR 23 S & TR 23 N
26	CR 120 N	Penn Central RR	58	CR 23 S & TR 23 N	CR 34
26	Penn Central RR	CR 142	58	CR 34	TR 35 N
26	CR 142	CR 124	58	TR 35 N	CR 21
26	CR 124	Logan-Union Co Line	58	CR 21	TR 207

Note: Some sections of roads may be non-performed in order to stay within budget.

### 2021 BRIDGE PROGRAM

The Bridge Crew had another busy and successful year that included a few projects of note.

One of those unique projects involved the surveyors using modern 3-D scanning technology to properly size the culvert structure of CUL 44-1.76 in Zane Township. The existing culvert was a large, old and deteriorated stone culvert, which meant there were variations in size throughout the length of the structure and thus made the 3-D mapping technology very instrumental in the design process. This new culvert material was then successfully sliplined thru the existing stone structure and the space between the stone structure and new culvert was filled with low pressure grout.

The biggest project of the year was the replacement of BR T 166-2.44, which involved the replacement of a deteriorated and weight-restricted 59-foot single span steel bridge with a 62'-6" prestressed composite box beam structure. Some of the major things this project required was the removal of the existing structure, various site grading, the forming and pouring of concrete abutments, the forming and pouring of the composite concrete deck and minor roadway work.

In addition, many bridges were rehabilitated in the form of milling, waterproofing and paving decks and fixing bridges damaged by vehicle accidents. Two of the bigger bridge and guardrail repairs due to vehicular accidents were on County Road 1 and County Road 277.

The Bridge Crew also cleaned and performed maintenance on over 200 bridges and replaced several culverts.

BR C 39-6.80 (Richland Twp.): Rehabilitation: End plates  
BR C 18-2.68 (Union Twp.): Rehabilitation: Moment plates  
CUL CR 44-1.76 (Zane Twp.): Large culvert rehabilitation  
BR T 166-2.44 (Monroe Twp.): Bridge Replacement  
BR T 208-3.23 (Washington Twp.): Concrete sealing  
BR T 86-2.86 (Stokes Twp.): Concrete sealing  
BR C 105-0.80 (Richland Twp.): Concrete sealing  
BR C 286-0.15 (Stokes Twp.): Painting of wood railing and guardrail posts  
BR C 286-0.71 (Stokes Twp.): Painting of wood railing and guardrail posts  
BR T 47-0.60 (Monroe Twp.): Repairs & painting of wood railing and guardrail

### 2022 TENTATIVE BRIDGE PROGRAM

The 2022 Bridge Program continues the commitment of prioritizing bridge replacements and rehabilitation based on the condition of the structures. The County infrastructure will continue to be re-evaluated periodically and changes to this program are likely to occur in order to achieve our dedication to repair or replace the structures and highways in the worst condition first.

As of March 11, 2022, the proposed Bridge Program is as follows:

BR T 115-1.14 (Bokescreek Twp.): Replacement of 28'-0" span structure  
BR C 12-7.42 (Rushcreek Twp.): Mill, waterproof & repave and repair substructure  
BR T 131-0.72 (Perry Twp.): Mill, waterproof, repave & drip edge  
BR T 30-0.80 (Miami Twp.): Minor rehabilitation  
BR C 11-6.69 (Harrison Twp.): Rehabilitation of steel beams & scour countermeasures  
BR C 63-1.38 (Miami Twp.): Powerwash and seal exposed concrete parapet walls  
BR C 10-5.06 (Jefferson Twp.): Pier rehabilitation  
BR C 29-2.97 (Monroe Twp.): Pier rehabilitation  
BR C 13-7.20 (Harrison Twp.): Abutment rehabilitation & scour countermeasures  
BR T 99-0.87 (McArthur Twp.): Mill, waterproof & repave  
BR C 2-5.69 (Perry Twp.): Repair of timber middle wall of twin box structure  
BR T 178-0.46 (Monroe Twp.): Repair timber wingwall and backwall  
BR T 209-0.018 (Pleasant Twp.): Powerwash

### **ADMINISTRATIVE STAFF SUPPORT**

This department manages the overall office functions and budget of the Engineer's Office. Since the cost for construction, materials, and equipment are increasing faster than local revenues, the utilization of alternate funding sources is critical to the office. As such, the department administers the Ohio Public Works Commission's State Capital Improvement Program (SCIP) and the Local Transportation Improvement Program (LTIP) for Logan County. The allocation and accounting of these annual funding sources are a significant function of the Engineer's Office.

Other responsibilities of the administrative and support staff are human resources, payroll, purchasing requisitions, billing, word processing, contract administration and cost-tracking. Utilizing our cost-tracking system, all of the costs for the Engineer's Office are logged including the costs for surveying, engineering, administration, road work and construction of bridges. Equipment costs are amortized, while the labor costs include all fringes and benefits. In addition to all of the aforementioned accounting functions, this department also handles daily calls from the public and addresses the questions/problems directly or forwards them to the appropriate person.

### **DESIGN/ENGINEERING**

This department performs the engineering design for approximately 95% of the construction projects and directs specialized consultants for the engineering design of the remaining projects. Most of the staff design is done with a Computer Aided Design and Drafting (CADD) system. This department also oversees much of the administrative responsibilities.

### **TRAFFIC/DITCH DEPARTMENTS**

The Traffic Department is responsible for the maintenance of all road signs on county roads and bridge signs on township roads. Road signs now number 7,276. The maintenance of these signs includes installation, preservation and inspection. As part of the inspection process, we look for reflectivity, wind damage, vandalism and overall visibility. Repairing mailboxes damaged during snow removal operations is another part of the Traffic Department's responsibilities along with signing for road closure detours. The Routemarkers' main duty is to keep traffic moving safely and to keep the traveling public informed. The Ditch Department maintains 38.00 miles of open ditch, 15.57 miles of tile and 7.4 miles of waterway.

### **COURTHOUSE DUTIES**

The Map Room is responsible for updating the county tax maps, assigning new parcel numbers, reviewing, approving, indexing new surveys & subdivision plats and checking the legal descriptions on all deeds and other instruments of conveyance that are recorded in the County.

In addition to these duties, this office maintains the house numbering system for 911 and provides maps, surveys, information to the public, surveyors, attorneys, realtors, appraisers & other governmental agencies

The records of the Map Room can be found on the Logan County Engineer's Office website at: [www.lceo.us](http://www.lceo.us)

**The Office of the Logan County Engineer**

1991 CR 13, P.O. Box 427

Bellefontaine, OH 43311

Phone (937) 592-2791

Fax (937) 599-2658

Web Site: www.lceo.us

Follow us on Twitter: @LoganCoEngineer

Facebook.com/LoganCountyEngineer

**EXECUTIVE SUMMARY**

**368.124 Miles of County Road**

As of 12/31/2021

**296 Bridges**

24 Have Load Reductions Posted, 4 of these are posted solely for Emergency Vehicles

4 Have a Sufficiency Rating Less Than 50%

**7,276 Traffic Signs**

**1,854 Culverts**

Excellent/Good Condition - 1,698

Fair/Poor/Unknown Condition - 156

**MOTOR VEHICLE REGISTRATIONS**

Vehicle registration fees are a significant source of revenue for the Engineer's Office.

2021 Logan County, Ohio Motor Vehicles Registrations		2020	2019
Type of Registration	# of Units	# of Units	# of Units
Passenger Cars	37,372	35,596	35,781
Motor Homes	356	308	334
Motorcycles	2,950	2,718	2,734
House Vehicles	1,309	1,165	1,094
Mopeds	18	12	10
Unconventional Vehicles	1,316	1,158	1,105
Non-Commercial Trailers	7,021	6,604	6,490
Non-Commercial Trucks	12,254	11,643	11,421
Farm Truck	350	326	346
Buses	32	39	37
Commercial Trailers	2,638	2,076	2,083
Non IRP Trucks (Intl. Reg. Plan)	2,073	2,087	1,940
IRP Trucks (Intl. Reg. Plan)	361	230	346
<b>Total Vehicle Registrations</b>	<b>68,050</b>	<b>63,962</b>	<b>63,721</b>

SOURCE: State of Ohio, Bureau of Motor Vehicles