



# 2023 Annual Report

Ashland County Engineer's Office & Highway Department

Ashland County Commissioners  
Ashland, Ohio 44805

February 29, 2024

Your Honorable Body:

This report from the Ashland County Engineer is in accordance with Section 5543.02 of the Ohio Revised Code and provides information as to the condition of Ashland County's roads, bridges, and culverts. It outlines the work performed in 2023 to improve and maintain our roadways and the associated costs. This report also estimates the probable amount of funds required to maintain and improve any roads, bridges, or culverts in 2024. All monetary figures are rounded to the nearest dollar. The Ashland County Engineer will clarify or provide any additional information that may be requested.

Respectfully submitted,

Edward J. Meixner, PE, PS  
Ashland County Engineer

## Staff:

Ryan Athy, Assistant Engineer  
Phil Diehm, Construction Coordinator  
Kelly Hickey, Administrative Assistant  
Kevin Pasho, Bridge Engineer  
Becky Schaly, Engineering Assistant  
LynAnn Spoerr, Tax Map Supervisor  
Mike Weber, Highway Superintendent  
Ernie Weiler, Tax Map Technician

Contents	
Bridges	2-3
Culverts	4-6
Roads	6-8
Equipment	8-9
Buildings & Grounds	9
Personnel	9
Tax Map	9
Financial Information	10-11

## Bridges:

2023 EXPENDITURES: \$525,000

2024 PROJECTED EXPENDITURES: \$980,000

The Ashland County Engineer is responsible for maintaining bridges or “structures” spanning 10 feet or more on County or Township Roads within Ashland County. In the event the structure is on a road forming a county boundary the maintenance costs are shared by Ashland County and that particular county.

The program for caring for these structures includes annual inspections and data analysis. In 2023, Guy Keener and Kevin Pasho of the Ashland County Engineer’s Office inspected the 230 structures under our care. Since 1973, this thorough on-site review of the structural and functional elements of each of our bridges provides the data needed to monitor and assess the health of our bridges. Following inspection, a numeric condition rating is assigned to each bridge: 0=“closed” to 9=“new, excellent”, as well as sufficiency rating that incorporate a public safety factor. Together the condition and sufficiency scores provide indications of relative bridge condition and public safety risk and are used to plan maintenance and improvement projects. This data is also submitted to ODOT.

BRIDGE CONDITION RATINGS	
Condition	# of bridges
OUT OF SERVICE	0
IMMINENT FAILURE	0
CRITICAL	0
SERIOUS	3
POOR	10
FAIR	23
SATISFACTORY	51
GENERAL GOOD	62
VERY GOOD	74
NEW	8

BRIDGE SUFFICIENCY RATINGS	
(DOES NOT INCLUDE BORDER BRIDGES)	
Sufficiency Rating	# of Bridges
< 50%	5
50% - 59%	6
60% - 69%	10
70% - 79%	23
80% - 89%	61
90% - 100%	115

\*Sufficiency rating is a measure of the condition of the bridge and includes pavement conditions, bridge conditions, geometric adequacy and accident rates.

### Bridge Work Completed – 2023:

County workers performed routine maintenance and repair work on 33 bridges throughout the county. That work consisted of beam patching, deck repair, debris removal, washing, erosion control, and scour countermeasures. The cost of this work done by force account was \$20,737.

## BRIDGE FORCE ACCOUNT WORK - 2023

Bridge projects estimated to be under \$100,000 can be undertaken by the Ashland County Highway Department work force. The following structures were rebuilt in 2023 using County resources.

Structure	Township	Plan	Cost
1575-1520	Montgomery	Replace-Steel Superstructure	\$499,392*

\*Structural steel & decking for this project in the amount of \$435,700 was competitively bid in 2023.

## PROPOSED BRIDGE FORCE ACCOUNT WORK - 2024

Structure	Township	Plan	Cost
1356-1021	Montgomery	Replace existing structure	\$980,000

## POSTED BRIDGES

Following inspection, a bridge considered unable to carry a legal load is marked with a sign identifying the load it can bear. This is known as "Posting" a bridge. It is illegal to cross a posted bridge with a load above the posted weight.

Township	Structure	Posted Weight
Montgomery	1356-1021!	35 tons
Perry	13-1210*	15 tons
Clear Creek	658-1340	6+ axle – 31 tons
Green	2654-800	3 axle – 23 tons
Montgomery	1600-720	3 axle – 23 tons
Perry	1550-50	2 axle – 12 tons 3 axle – 14 tons 4 axle – 14 tons 5 axle – 16 tons 6+ axle – 18 tons 18 Wheeler – 25 tons
Vermillion	585-2060	4 axle – 25 tons 5 axle – 27 tons 6+ axle – 28 tons

\* Border Bridges      ! City Bridge

## Culverts:

2023 EXPENDITURES: \$211,538

2024 PROJECTED EXPENSES: \$380,000

A culvert is described as being any structure with a span less than ten feet. They are installed to allow water courses to flow under county roads. Ashland County maintains 1423 culverts.

MAJOR CULVERT REPLACEMENTS-2023			
Culvert work done in 2023 included replacements, extensions, and general repair. Sixteen culverts were replaced. The major culvert projects and their costs are listed in the table below.			
Culvert	Township	Description	Cost
175-111	Perry	87"Steel 60" Plastic	\$17,234
1353-16	Milton	103"x71"x60' CMP 8'x5'x40' Concrete Box	\$71,867
16-26	Ruggles	12"x36' CIP/St 12"x40' Plastic	\$2,188
175-21	Lake	18"x43' Concrete 18"x50' Plastic	\$8,271
175-29	Mohican	78"x48' Steel 60" Plastic	\$19,381
530-15	Jackson	20"x33' Steel 18" Plastic	\$2,199
601-33	Orange	24"x54' Steel 24"x60' Plastic	\$5,207
601-38	Orange	64"x43"x50' CMP 64"x43"x60' CMP	\$24,381
655-11	Vermillion	12"x45' Steel 12"x50' Plastic	\$2,391
775-36	Green	18"x48' CIP 18"x50' Plastic	\$15,727
775-45	Green	54"x40' CMP 60"x60' Plastic	\$10,416
775-46	Green	48"x37' CMP 48"x60' Plastic	\$9,391
775-59	Vermillion	12"x32' CIP/St 12"x40' Plastic	\$4,096
791-35	Troy	12"x50' Steel 12"x50' Plastic	\$2,632
801-5	Orange	12"x36' CMP 12"x40' Plastic	\$2,639
500-75	Jackson	15"x42' CMP/CIP 18"x50' Plastic	\$13,518

### Proposed Culvert Work - 2024:

Each year we determine which culverts to replace by considering condition and/or length (short lengths limit road width.) Below is a list of culverts that will be replaced in 2024.

CULVERT REPLACEMENTS PROPOSED-2024			
Culvert	Township	Existing / Planned Replacement	Estimated Cost
16-15	Ruggles	12"x24' CIP/St 12"x40' Plastic	\$4,592
175-12	Lake	12"x38' Steel 12"x40' Plastic	\$4,680
175-13	Lake	18"x65' CIP 18"x80' Plastic	\$14,834
175-14	Lake	24"x38"x40' Steel beam Replace beams and wood deck	\$17,177
251-23	Perry	12"x30' CMP 12"x40' Plastic	\$4,872
251-33	Perry	18"x40' Steel 18"x40' Plastic	\$8,808
281-14a	Sullivan	12"x38' CIP/St 12"x40' Plastic	\$4,473
500-9	Ruggles	18"x44' Steel 18"x60' Plastic	\$10,343
500-18	Troy	12"x42' Steel 12"x60' Plastic	\$5,423
601-23	Orange	15"x38' Steel 15"x40' Plastic	\$7,149
655-3	Vermillion	12"x30' Drain Tile 12"x40' Plastic	\$4,586
655-4	Vermillion	42"x60' CMP 42"x60' Plastic	\$20,842
700-30	Jackson	20"x43' Steel 24"x60' Plastic	\$9,527
700-34	Jackson	27"x43"x40' CMP 36"x40' Plastic	\$24,090
1181-25	Ruggles	12"x31' Steel 12"x40' Plastic	\$4,620
1356-5	Milton	12"x30' CIP/St 12"x40' Plastic	\$4,673
1356-8	Milton	16"x45' Steel 18"x60' Plastic	\$8,081
1675-5	Perry	24"x40' CIP/St 24"x40' Plastic	\$6,781

1675-10	Perry	12"x60' Steel 12"x60' Plastic	\$6,501
1904-7	Vermillion	12"x36' Steel 12"x40' Plastic	\$5,596
1950-6	Mohican	24"x36' CIP/St 24"x40' Plastic	\$6,809
1950-7	Mohican	48"x48"x50' Concrete 36"x60' Steel	\$26,628
1950-8	Mohican	36"x65' CMP 36"x80' Plastic	\$25,512
1956-3	Mifflin	93"x58"x36' CMP 95"x67"x40' CMP	\$36,214
2075-13	Vermillion	16"x45' Steel 18"x60' Plastic	\$8,136

<p><b>Roads Section:</b>  2023 EXPENDITURES: \$4,139,566</p>	<p>2024 PROJECTED EXPENSES: \$4,000,000</p>
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Maintaining the usability, safety, and stability of the county road system consumes the greatest amount of resources by employees of the Ashland County Engineer's Office and Highway Garage.

To be usable, roads must be kept clear of obstructions so we plow snow, distribute salt; remove debris, patch, seal, and pave. To increase safety, roads must be well marked and have appropriate signs and sight distance so we paint the pavement, install signs, mow, and clear brush. For roads to remain stable, water must drain away from them so we can clean out culverts and maintain ditches. To accomplish all these things, equipment is purchased and maintained. To track and analyze our costs and to plan our future activities, all the work is documented. The following sections itemize the maintenance activities undertaken in 2023 and our plans for 2024.

**Paving**

In 2023, 18.03 miles of road were paved with 1½" hot mix asphalt by Melway Paving Co. at an expenditure of \$1,509,531 for a cost of \$83,742 per mile. The chart below itemizes the roads paved under this contract.

Road	Mileage	Begin	End
CR956	2.156	CR 1353	US 250
CR 500	6.446	SR 511	CR 281
CR 601	2.621	ASHLAND RR	SR 58
CR 1302	3.246	SR 89	US 250
CR 2000	3.557	CR 2175	CR 175

Below is a list of roads to be paved in 2024.

Road	Mileage	Begin	End
CR 281	2.485	CR 500	US 224
CR 281	2.454	US 224	Lorain County Line
CR 620	1.873	CR 175	Wayne County Line
CR 655	2.679	Hayesville Corp. Line	CR 1775
CR 1008	0.870	SR 545	CR 1353
CR 1153	1.536	Ashland Corp. Line	SR 96
CR 1353	2.701	SR 96	CR 956
CR 1675	2.627	Jeromesville Corp. Line	CR 175

### Sealing

Sealing roads extends the life of the pavement and is much cheaper than paving. During 2023, about 44.126 miles of roads throughout the County Road system were chip sealed by Melway Paving Co. using Ashland County materials. Melway Paving Co. was paid \$212,673 for their labor and used \$731,052 worth of materials. The total cost of the sealing program was \$943,725, which is a cost of about \$21,837 per mile. For 2024, we anticipate sealing close to 48 miles.

### Patching

In addition to the contract work done by Melway Paving Co., our own workforce spent 2,296 man hours in 2023 patching various road sections. The total cost for materials and equipment was \$179,443 to perform this type of work.

### Pavement Marking

All roads received new pavement marking during 2023. The roads were marked with centerlines, edge lines, turning lanes, and school zones by JD Striping & Services who was paid \$273,382. We plan to repeat this pavement marking program in 2024.

### Roadside Maintenance

During 2023, the County Highway Department spent the following amounts maintaining county rights-of-way: Ditching/Sloping - \$238,259; Berming - \$139,308; Road Cleaning - \$2,641; Mowing – \$189,995; Brush Cutting - \$154,352; Spraying - \$7,031. This totals \$731,586 for roadside maintenance.

### Permits

Right-of-way permits are issued for work within county road right-of-ways, which includes residential driveways, ditch enclosures, farm field entrances, commercial entrances and utility work. Driveway entrance construction and maintenance are the responsibility of the property owner in accordance with Section 5543.16 of the Ohio Revised Code. During 2023, there were 47 residential driveways; 13 field drives, 15 ditch enclosures; 5 commercial drives; 31 utility work projects; and 1 vehicle parking permit.

Special hauling permits are also issued pursuant to Section 4513.34 of the Ohio Revised Code. All individuals, firms, partnerships, companies and corporations wishing to operate or move a vehicle or combination of vehicles of a size or weight of a vehicle or load exceeding the maximum specified in Sections 5577.01 to 5577.09 of the Ohio Revised Code on any Ashland County maintained highway must obtain a SPECIAL HAULING PERMIT. During 2023, the following permits were issued: 6-construction equipment; 8-trip & return (14 days); 2-annual overwidth.

### Signs

Our Superintendent relies on direct observation and reports from work crews in the field and the public to determine what signs need to be cleaned, reset, or replaced. The Highway Department performs an annual inspection of all signs along county roads which provides an excellent record of the signs' condition. The amount for sign work in 2023 was \$52,773. We anticipate spending \$70,000 for sign work in 2024. The signs are tested each year with a retroreflectometer to determine their effectiveness.

### Snow and Ice Control

In 2023, we spent \$235,032 on snow and ice control. The chart below shows the snow and ice control trend for the past five years:

Snow & Ice Control	2018-19	2019-20	2020-21	2021-22	2022-23
# of days with snow	49	40	53	52	30
Inches of snowfall	45.80	17.40	38.90	39.50	14.50
Tons of Salt & Grits used	7,234	4,297	4,962	4,538	2,625
Hours of labor	4,044	2,275	3,130	3,537	2,326

### Guardrail

Guardrail is used to prevent vehicles from crashing against solid objects or falling into ravines.

Most of the guardrail work done by our Highway Department is to maintain existing guardrail or install new guardrail in conjunction with paving, widening, or bridge projects. When time and money allow, we install or upgrade guardrail in various locations.

In 2023, we spent \$10,552 for guardrail maintenance and installation done by our work force. In addition to the outside funds spent on the contracted project, we expect to spend about \$5,000 for guardrail work done by our work force in 2024. We are using federal safety funds administered through ODOT to replace and install guardrail in various locations. The contract work for this work was completed by Cuyahoga Fence, LLC for \$214,094. It is estimated that the 2024 Guardrail Project will cost \$288,642.

### Equipment:

A total of \$669,767 was spent purchasing and servicing the equipment used to maintain the county road system. For 2023, we purchased 1 new 2023 Chevrolet Silverado-\$34,823; 1 new Volvo L90H Wheel Loader-\$215,587.



Equipment Maintenance-2023 \$419,357			
Parts	Labor	Outside Service	Fuel
\$121,165	\$72,868	\$42,164	\$183,160

### Buildings and Grounds:

The Ashland County Highway Department maintains three physical locations: the main garage and office building at 1511 Cleveland Avenue; a mixing plant on Simanton Road; and a garage outpost at 991 CR 2796 in Perrysville.

Routine maintenance projects carried out by our work force totaled \$3,687. An additional \$35,014 was paid for utilities bringing the entire amount paid for maintaining the Engineer’s work and office space in 2023 to \$38,701.

### Personnel:

During 2023, there were changes in personnel working for the Ashland County Engineer:

Engineer’s Office: In December, 2023, Guy Keener, Construction Coordinator retired after 36 years of service to Ashland County.

Highway Department: The Highway Department had one employee resign in 2023, two employees were hired. Replacements are currently being interviewed and hired.

### General Fund Activities-Tax Map:

Surveys and deeds are reviewed in the Tax Map Office to assure they meet state law and local regulations. These are then used to provide the County Auditor with detailed maps used to assess property taxes. The requirement that an Ohio County Engineer be a professional surveyor assures that the staff has appropriate guidance to fulfill these duties. The chart below itemizes some of the activities of the Tax Map Office.

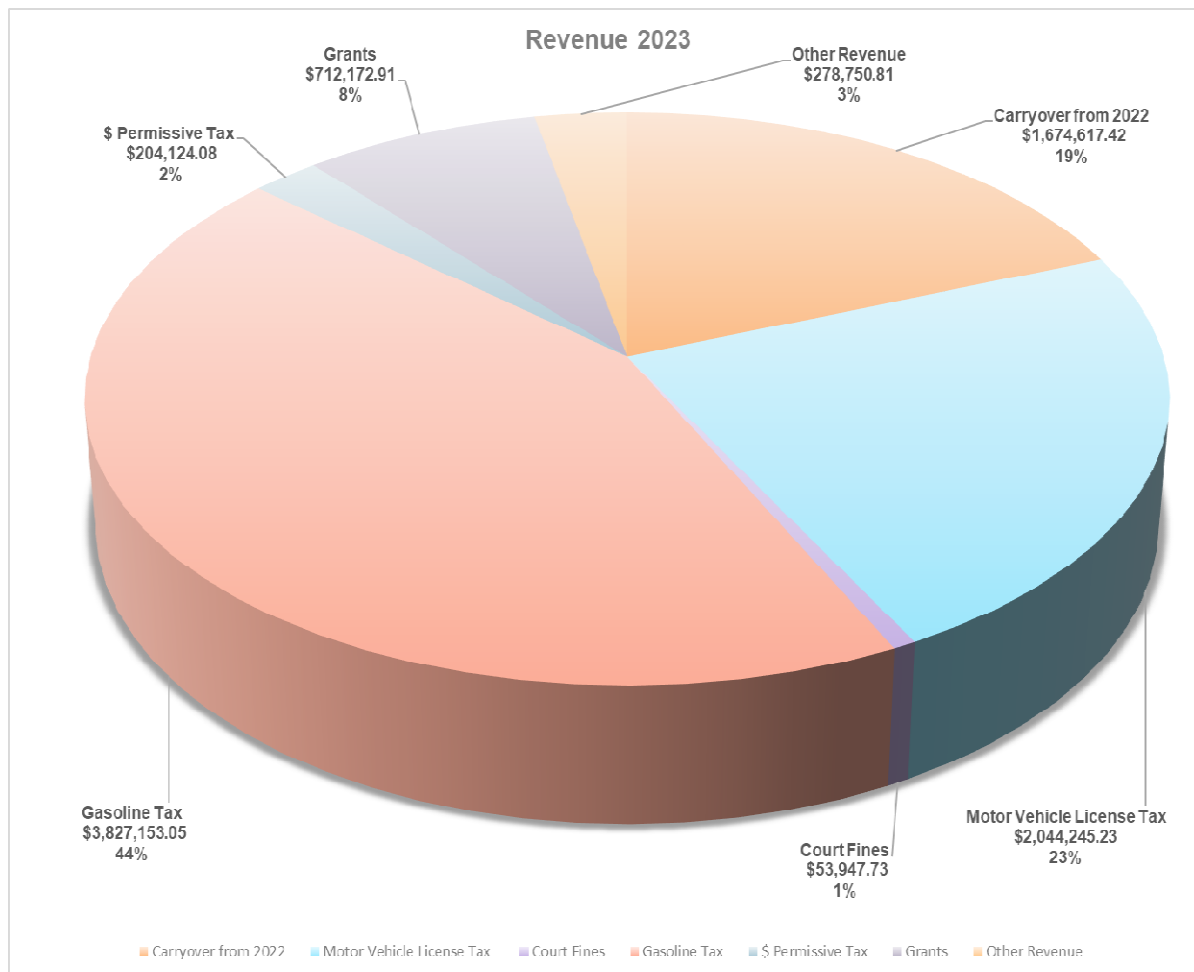
TAX MAP DATA - 2023			
Deed Transfers	2,266	Surveys reviewed/approved	158
New Parcels transferred by deeds	200	New Parcels surveyed (created by survey docs-not necessarily transferred)	245

## Financial Information for 2023:

As the chart indicates, 44% of revenue is received by the Engineer's office is gasoline tax. This tax is applied per gallon creating a direct correlation between gasoline consumption and the amount of gasoline tax collected. Distribution of the gasoline tax is on a state-wide basis so buying gasoline anywhere in Ohio generates funds for the Ashland County Engineer. All 88 counties in the State of Ohio receive the same share of Gasoline Tax regardless of population, geographic size or amount of road miles.

Providing 23% of revenue is the Motor Vehicle License Tax. This tax is assessed when you apply for or renew a vehicle registration. The Ashland County Engineer receives a portion of this tax after the funds are processed by the state. Distribution of this tax is more complicated than the Gasoline Tax. Some of it is distributed to counties based on road mileage and some is distributed to counties, townships, and municipalities based on residence of the person registering the vehicle.

A considerably smaller revenue stream (2%) is generated by the Permissive License Tax. Like the Motor Vehicle License Tax, the Permissive License Tax is assessed when you apply for or renew a vehicle registration. This tax is distributed to counties based solely on the residence of the registrant.



As the chart below indicates, 19% of the expenses are for Materials, 22% for Payroll and Benefits, 20% is Carryover to 2023, 29% for Projects, 4% for Contract Repairs/Services, and 5% for Highway Equipment.

