

Champaign County Engineer

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Champaign County Engineer 2017 Annual Report



It is with great pleasure to present the work of the Champaign County Engineer's office. Whether we are keeping the roads safe during the winter season, resurfacing or repairing deteriorated roads, replacing bridges or culverts, or working on the right of way, the employees are very dedicated and hard working. Most of our hours in 2017 were **dedicated to the maintenance** of 239 miles of roadway and the upkeep of the right of way in the form of resurfacing, mowing, snow and ice control, ditch cleaning, trash pickup, tree cutting and road repair. **The 2016-2017 winter was the third mildest in the last 10 years.** Although the winter was mild, we did have a severe ice storm

that affected the roads on December 17, 2016. The plow trucks backed their entire route, which took eight hours to cover all of the county roads with salt and grit. With great effort from our crews, we were able to make the roads safer. We used about 50% of the salt we would in a typical year during the 2016-2017 winter season. This reduced amount was due to the mild winter and the use of a salt enhancer called Beet Heet®. Adding this product makes the salt more effective at temperatures below 25 F. With this added product, we were able to melt more ice and snow providing safer roads. A great deal of thanks is given to the employees for making 2017 a successful year. Some of our accomplishments completed this year can be found in the following report.

Funding for our office to accomplish our work comes from three main sources. The first funding source comes from a portion of the 28 cents per gallon state gas tax equaling only 3.2 cents per gallon. The gas tax is a fixed amount that does not change with the fluctuating price of fuel and has been stagnant for the past 8 years. This funding source is based on the total number of gallons sold in Ohio and divided equally among the 88 counties generating \$2,389,284.77 for Champaign County in 2017. The **second funding source** comes from a license plate fee that is divided between several government entities. The Engineer's office last year received just over \$1,300,000. The **third main source** of revenue is also based on the number of licenses issued in Champaign County referred to as the Permissive License Fee. This additional \$15.00 fee is split between municipalities, townships and the county depending on where you live. The County portion was about \$585,000 last year. **No property tax or sales tax** is used in maintaining roads or replacing bridges in Champaign County. Additional sources of funding the county occasionally receives comes in the form of state and federal grants. The Engineer's office received a federal grant to pave 21 miles of major and minor collectors in 2017. The additional \$1.2 million dollars was a significant boost to our budget that helps us maintain these roads. We will continue to pursue outside funding to help upgrade the county road system.

In accordance with the Ohio Revised Code, an annual report must be made to the County Commissioners summarizing the work performed and the condition of the County infrastructure. Any questions concerning this report or comments pertaining to our work can be submitted to our office. **We are happy to serve you.**

Sincerely,



Stephen McCall P.E., P.S.
Champaign County Engineer

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2017 Road Work

Current road centerline mileage for the County totals 239.26 miles. This mileage is certified and provided to the Ohio Department of Transportation.

<p style="text-align: center;">2017 Paving Project</p> <p>A federal grant through ODOT's LPA program to help pave 21 miles of County roads.</p> <p>-Christiansburg-Jackson Rd -Ward Rd -Old Troy Pike -Storms Creek Rd -Parkview Rd -St. Paris-Jackson Rd -Pisgah Rd -Zimmerman Rd</p> <p>Construction Cost: \$1,509,901.29 Federal Funding: \$1,207,921.04 County Funding: \$ 301,980.25</p>	<p style="text-align: center;">2017 Resurfacing Program</p> <p>Various roads in the eastern portion of the county were chip and sealed.</p> <p>Over 52 miles of County, Township and Municipal roads were chip and sealed with HF-RS2P emulsion. We are currently on a six-year resurfacing rotation with our program and inspect the roads every two years to see if they need immediate attention.</p> <p style="text-align: center;">County Roads – 4.30 miles Township and Municipal Roads –48.43 miles</p> <p style="text-align: center;">211,462 Gallons of HF-RS2P at \$1.56/gal 4920 Tons of #8 Stone at \$14.00/ton \$398,760.72 Total Material Cost</p>
<p style="text-align: center;">Mowing</p> <p>Three single passes and four full width passes of mowing was performed this year totaling 3,320 lane miles of mowing. Total cost for mowing was \$101,778.00.</p>	<p style="text-align: center;">Road Profile and Crown Correction</p> <p>Several intersections were milled, graded and profiled. These included South Elm Tree and Loy Road, Snapp and Kiser Lake, Snapp and Ford, Snapp and Heck Hill, Valley Pike and Lippincott, Urbana Woodstock and Brand.</p>
<p style="text-align: center;">Pavement Marking</p> <p>130.85 miles of road were marked with centerline and edge line. 10 railroad crossings, 2 crosswalks and 4 school zones were also painted for a total project cost of \$110,274.09.</p>	<p style="text-align: center;">2017 Road Reconstruction</p> <p>A 900 ft section of Old Troy Pike near the intersection of SR 560 commonly referred to as "Dodge Hill" was reconstructed and paved. Phenix Stabilization, LLC performed the reconstruction and cement stabilization while A&B Asphalt paved the road. The county installed a culvert and performed shoulder and drainage work.</p> <p>The county also made small profile adjustments to improve ride quality and drainage improvements on Woodville Pike and Calland Road.</p>
<p style="text-align: center;">Crack Sealing</p> <p>Crack seal was applied to Dallas, Millerstown Eris, Heck Hill, Hickory Grove, Kite, and Catawba Mechanicsburg roads. The total mileage of crack sealing was 20.69 miles.</p>	

Snow and Ice Control

<p>1,275 tons of salt were used to treat county and township roads through the 2016-2017 winter season. Our average over the last ten years has been just over 1,875 tons per year. Nearly 64% was used for county roads and townships and smaller incorporated villages purchased the remaining 36%. This was our third lowest total in the last 10 years.</p>	<p>The 2017 winter salt price was \$49.87 per ton. This was down from 2016's price of \$54.90 per ton because of the mild winter in 2016. We also use Beet Heet to help the salt melt snow and ice at lower temperatures and not refreeze. Using this product has helped reduce the amount of material required to melt the same amount of snow and ice at temperatures below 25° F.</p>
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2017 Bridge and Culvert Work

Our annual inspection of 214 bridges has been completed and shows that overall, our bridges are in good shape. We share maintenance responsibilities with Clark County for three bridges on County Line Road and two bridges with Logan County.

2017 Bridge Replacement and Repair	
Location	Cost
Burton Rd 150-0111 Replacement	\$177,826.27 (total) \$53,200 (by others)
No Ten Rd 176-0063 Patch and waterproof	\$11,153.39
Lippincott Rd 115-0007 Patch and waterproof	\$9,162.98
Clark Rd 126-0048 Patch and waterproof	\$4,526.08
East St (North Lewisburg) Patch and waterproof	\$8,223.97
Total	\$210,892.69

2017 Culverts Replaced

Per Ohio law any structure with a span less than 10' is considered a culvert.

The engineer's office replaced 26 structures, of which, 4 were 30" or larger and 22 were between 12"-27" diameters. The largest culvert replaced was 56 linear feet of 54" reinforced concrete pipe.

2017 Bridge Inspection		
General Appraisal	Condition	Number
9A	As Built	77
8A	Very Good	78
7A	Good	39
6A	Satisfactory	19
5A	Fair	1
4A	Poor	0
3A	Serious	0
2A	Critical	0
Total		214

Staff and Highway Workers

Currently the Engineer's office has seven office staff, a superintendent and three supervisors, a fleet maintenance manager and a mechanic and 18 highway workers. The 31 employees and the County Engineer are serving Champaign County to maintain Champaign county's infrastructure.

No bridges have load restrictions. One one lane (18' or less) bridge is posted and six are posted narrow (18' to 20').

Mapping and Planning

The Office of Mapping and Planning continues to do a great job serving the public. The office answers a number of questions daily from the public in addition to their normal duties. The number of conveyances and new surveys were up about 10%, but the number of sheriff sales were almost half as last year. The total conveyances reviewed was 1687.

<p style="text-align: center;">2017 Permits</p> <ul style="list-style-type: none"> ➤ 29 Total Requests for Driveway Permits ➤ 6 Driveway pipes were installed ➤ 23 House numbers were issued ➤ 15 Total Utility Permits Were Issued <ul style="list-style-type: none"> 7 Issued on county roads 8 Issued on township roads 	<p style="text-align: center;">2017 Deed, Description and Survey Reviews</p> <ul style="list-style-type: none"> ➤ 207 Surveys were approved <ul style="list-style-type: none"> 72 New splits were approved 25 New attachments were approved 18 New easements were approved 92 Retracement surveys ➤ 1,655 Parcels updated on the tax map ➤ 1,687 Conveyances were reviewed 87 Sheriff Deeds
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Existing Fleet

The total miles driven by the 33 licensed vehicles was 268,348 miles last year. The 22 pieces of off road construction equipment totaled 5226 hours of usage. We have 11 tandem trucks. The average age of our tandems is 5 years old with an average of 67,469 miles. Through 2017 we spent almost \$97,158 on fuel. The total maintenance cost for the entire fleet and construction equipment was \$91,457 for this year.

2017 New/Used Equipment Purchases

<p>Road Master Grader \$26,500.00</p> 	<p>Bumford Kestral VFA Mower \$35,555.00</p> 
<p>Pavement Marking Cart and Line Driver \$13,000</p> 	<p>2 - Western Star Dump Trucks \$176,808 each</p> 

Financials

2017 Receipts			2017 Expenditures		
Gasoline Tax	\$2,389,284.77	52%	Payroll	\$ 1,482,429.90	36.6%
Auto License	\$1,321,592.44	29%	Road Projects & Maint.	\$ 956,719.15	23.6%
Permissive Taxes	\$ 551,162.01	12%	Equipment & Fleet	\$ 678,390.69	16.8%
Miscellaneous	\$ 303,315.73	7%	Employee Benefits	\$ 527,222.89	13.3%
Interest	\$ 35,686.86	1%	Bridge & Culvert Projects	\$ 224,051.84	5.5%
			Office & Operations	\$ 177,557.63	4.4%
Total	\$4,601,041.81		Total Expenditures	\$4,046,372.10	