

Champaign County Engineer

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Champaign County Engineer 2016 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 man hours in 2016 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 2015-2016 winter was the second mildest in the last 10 years.** We used about 35% of the salt we would in a typical year. This reduced amount was also due to the use of a salt enhancer called Beet Heet®. Adding this product makes the salt more effective at temperatures below 25 F. We had many days with single digit temperatures. With this added product, we were able to melt more ice and snow providing safer roads faster than without. A great deal of thanks is given to the employees for making 2016 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 portion of the 28 cents per gallon state gas tax that goes to each county **only calculates to 3.2 cents per gallon.** This **fixed amount** is based on the number of gallons sold in Ohio and generated about \$2,356,000 in 2016 for Champaign County. The fluctuating price of fuel does not change the amount we receive and this number has been stagnate if not decreasing for the past 7 years. The **second funding source** comes from a license plate fee which is divided between several government entities. The Engineer's office last year received just over \$1,326,000. 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. The permissive fee was increased in 2015 and is helping overcome the material and construction cost increases over the last 20 years. Champaign County has **less funding than more populated counties** to pave our roads due to the limited number of license plates issued. With this **funding challenge**, our office has applied for additional State and Federal grants to assist in overcoming the 30 to 40% increase in material cost over the recent years. **No property tax or sales tax** is used in maintaining roads or replacing bridges in Champaign County

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. Information about our operation can be found on our website and any questions concerning this report or comments pertaining to our work, can be addressed to **our office who will be happy to serve you.**

Sincerely,



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

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2016 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;">2016 Paving Project</p> <p>In 2016, we were able to reconstruct and pave 4.18 miles of Millerstown-Eris Road. Phenix Stabilization, LLC performed the cement base stabilization and A&B Asphalt paved the road.</p> <p>Construction Cost: \$804,341.55 OPWC Funding: \$530,865.42 County Funding: \$273,476.13</p>	<p style="text-align: center;">2016 Resurfacing Program</p> <p>Various roads in the western portion of the county were chip and sealed.</p> <p>Over 101.03 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 – 14.32 Miles Township and Municipal Roads –86.71 Miles</p> <p style="text-align: center;">407,703 Gallons of HF-RS2P at \$1.46/gal 11,592 Tons of #8 Stone at \$14.05/ton \$758,113.98 Total Material Cost</p>
<p style="text-align: center;">Mowing</p> <p>We made 3 single passes and 3 full width passes of mowing this year totaling 2,896 lane miles of mowing. Total cost for mowing was \$67,556.71.</p>	<p style="text-align: center;">Road Profile and Crown Correction</p> <p>Various locations on Urbana Woodstock Pike, Kennard Kingscreek Road, Perry Road, Mutual Catawba Roads were milled and graded to help improve the ride quality and correct drainage issues.</p>
<p style="text-align: center;">Pavement Marking</p> <p>153.32 Miles of Road were marked with centerline and edge line. 12 railroad crossings, 2 cross walks and 6 school zones were also painted for a total project cost of \$175,712.32.</p>	<p style="text-align: center;">2016 Road Reconstruction</p> <p>In 2016, we were able to reconstruct and pave a 700ft section of Mutual-Catawba Road commonly referred to as "Walker Hill". Phenix Stabilization, LLC performed the reconstruction and cement stabilization while A&B Asphalt paved the road.</p> <p>Construction Cost: \$113,802.68</p>
<p style="text-align: center;">Crack Sealing</p> <p>Last year we crack sealed Mt. Tabor, Parkview, Dallas, Ludlow, Stevenson, and Ward roads. We were also able to crack seal Clark road and Ludlow for Salem and Union townships The total mileage of crack sealing was 21.6 miles.</p>	

Snow and Ice Control

<p>1,006 tons of salt were used to treat county and township roads through the 2015-2016 winter season. Our average over the last ten years has been just over 2000 ton per year. Nearly 70% was used for county roads and the remaining 30% was purchased by townships and smaller incorporated villages. This was our second lowest total in the last 10 years.</p>	<p>The 2016 winter salt price was \$54.90 per ton. This was down from 2015's price of \$70.05 per ton because of the mild winter in 2015. We also started using 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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2016 Bridge and Culvert Work

Our annual inspection of 211 bridges has been completed and shows that overall, our bridges are in good shape. We share maintenance responsibilities with Clark County with three bridges on County Line Road and two bridges with Logan County.

2016 Bridge Replacement and Repair	
Location	Cost
Ward Road 25-0124	\$113,863.63 Total \$69,219 by others
Licklider Road 52-0135	\$78,783.58 Total
Total	\$192,647.21

2016 Culverts Replaced

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

The engineer's office replaced 41 structures, of which, 5 were 30" or larger and 36 were between 12"-27" diameters. The largest culvert replaced was 64 linear feet of an 8' x 4' concrete box structure on Zimmerman road.

2016 Bridge Inspection

General Appraisal	Condition	Number
9A	As Built	77
8A	Very Good	77
7A	Good	39
6A	Satisfactory	17
5A	Fair	1
4A	Poor	0
3A	Serious	0
2A	Critical	0
Total		211

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

Mapping and Planning

Our 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 giving a total of 1751 Conveyances reviewed.

<p style="text-align: center;">2016 Permits</p> <ul style="list-style-type: none"> ➤ 32 Total Requests for Driveway Permits ➤ 16 Driveway pipes were installed ➤ 27 House numbers were issued ➤ 21 Total Utility Permits Were Issued <ul style="list-style-type: none"> 15 Issued on county roads 6 Issued on township roads 	<p style="text-align: center;">Deed, Description and Survey Reviews</p> <ul style="list-style-type: none"> ➤ 257 Surveys were approved <ul style="list-style-type: none"> 73 New splits were approved 39 New attachments were approved 23 New easements were approved 122 Retracement surveys ➤ 1,750 Parcels updated on the tax map ➤ 1,751 Conveyances were reviewed 63 Sheriff Deeds
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Existing Fleet

The total miles driven by the 33 licensed vehicles was 291,171 miles last year. The 21 pieces of off road construction equipment totaled 5232 hours of usage. We have 11 tandem trucks. The average age of our tandems is 6 years old with an average of 79,958 miles. Through 2016 we spent almost \$90,000 on fuel. The total maintenance cost for the entire fleet and construction equipment was over \$83,000 for this year.

2016 New/Used Equipment Purchases

<p>2016 Superior Broom \$53,047.02</p> 	<p>CAT Fork Lift \$20,000</p> 
<p>58" Roller Hypac \$15,500</p> 	<p>Staff and Highway Workers</p> <p>Currently the Engineer's office has 7 office staff, a superintendent and 3 supervisors, a fleet maintenance manager and 1 mechanic, and 18 Highway workers For a total of 31 employees and the County Engineer serving Champaign County to maintain Champaign counties infrastructure.</p>

Financials

Projected 2016 Receipts			2016 Expenditures		
Gasoline Tax	\$2,338,615.75	45.6%	Road Projects & Maint.	\$1,728,174.21	39.3%
Auto License	\$1,317,884.25	25.7%	Payroll	\$1,367,641.20	31.1%
Miscellaneous	\$ 860,820.08	16.8%	Equipment & Fleet	\$471,502.64	10.7%
Permissive Tax	\$579,028.27	11.3%	Employee Benefits	\$464,807.77	10.6%
Interest	\$ 31,147.57	0.6%	Office Supplies & Operations	\$162,257.01	3.7%
			Bridge & Culvert Projects	\$202,474.79	4.6%
Total	\$5,127,495.92		Total Expenditures	\$4,396,857.62	