

2015 MEDINA COUNTY ENGINEER'S ANNUAL REPORT

By: Mike Salay, P.E., P.S., Medina County Engineer

To the Board of Medina County Commissioners

Each calendar year the County Engineer submits an annual report to the Board of County Commissioners which summarizes the status and condition of the infrastructure for which the Engineer is responsible. It also serves as a summary to the citizens of Medina County of the work that was accomplished over the past year and an accounting of where dollars were spent in order to improve and maintain the County's system of roads and bridges.

The County Engineer is responsible for the maintenance, repair, and construction of the roadways on the County System and the bridges on both the County and Township roads. Employees of the County Engineer also assist the County Commissioners with management of stormwater rules, highway use permitting, subdivision infrastructure planning, and floodplain enforcement. Employees of the Engineer also manage the tax map office and various computer operations for the County including GIS functions.

WINTER MAINTENANCE

Winter operations for our highway department personnel consists primarily of snow and ice control and removal. 2015 proved to be a challenging winter season with record cold temperatures in February and the work continuing until April. Even though the months of November and December of 2015 experienced little snowfall, the total cost of all snow and ice operations which includes plowing, spreading salt, stacking/loading, brine making and spreading, and dispatch and supervision was \$1,003,967. 2015 also saw continued high prices for road salt as a result of increased demand and shrinking stockpiles.

2015 SPRING FLOOD

On the evening of June 13th, southeastern portions of Medina County were hit with a high intensity-short duration storm. Hardest hit were portions of Wadsworth and Guilford Townships. Several roads suffered severe washouts at culverts and along shoulders and berms. Bridges, culverts and ditches collected a great deal of debris and sediment. Highway department workers spent the better part of the next four weeks repairing damage from the storm. Several private contractors were also utilized in order to help complete repairs and get all roads back in shape.

2015 ROADWAY IMPROVEMENTS

FENN ROAD IMPROVEMENT

A section of Fenn Road of approximately 2.2 miles in length and extending from State Route 18 to Marks Road was resurfaced during 2015 with hot mix asphalt. Extensive work was performed by Medina County crews during 2014 and the spring of 2015 in order to replace and extend several cross culverts and add fill material along sections of the roadway in order to prepare for the project. The resurfacing project consisted of milling two inches of the existing asphalt surface, widening and repairing pavement edges, resurfacing with a total of three inches of asphalt placed in two lifts, guardrail, and pavement marking. The prime contractor for this project was Kokosing Construction Company. The total cost of the project was \$851,921 of which \$679,256 was paid for with Federal Highway Gas Tax Funds administered through NOACA (Northeast Ohio Areawide Coordinating Agency). The remaining \$172,665 local match was made up of local Medina County auto and gas funds.

PAVING AND CHIP SEAL PROGRAM

The County paving program for 2015 consisted mainly of applying a 2" surface course of 405 cold mix asphalt (motor-pave) with chip seal to 10.39 miles of roadway. The total cost of this work amounted to \$1,260,627. Spot full depth repairs were also performed on these roads as part of the resurfacing contract and included in the total cost. The following roads were resurfaced in this manner:

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|---|-------------|
| Eastern Road from S.R. 57 to Rittman Road | 0.327 miles |
| Kennard Road from S.R. 83 to S.R. 42 | 1.777 miles |
| Erhart Road from S.R. 57 to C.H. 128 | 0.514 miles |
| Seville Road from C.H. 35 to C.H. 15 | 1.355 miles |
| Westfield Road from I-71 to Westfield Village Corp. | 0.500 miles |
| Nichols Road from C.H. 21 to C.H. 32 | 2.048 miles |
| Trease Road from Rittman Road to Seville Road | 0.268 miles |
| Williams Road from S.R. 301 to S.R. 42 | 2.585 miles |
| Neff Road from C.H. 7 to C.H. 23 | 1.020 miles |

The chip seal program consisted of applying a single seal of asphalt emulsion and number eight slag cover aggregate to 23.436 miles of various County Roads. The total cost of the chip seal work amounted to \$608,110. The work for both the 405 motor-pave process as well as the single chip seal application was performed by Melway Paving Company of Holmesville, Ohio.

A hot-in-place asphalt recycling project was performed on Boston Road between Marks Road and Prospect in order to restore the surface condition. The work was performed by Trident Asphalt Recycling of Cleveland for a cost of \$49,900.

SPOT PAVEMENT REPAIRS

County crews performed machine patching and repair on various roads in 2015 in addition to hand patching where needed. Also a contract was let for more extensive repairs for Sleepy Hollow and Medina Line Roads. Karvo Paving Company furnished equipment, material and labor to mill and repair sections of these roads. The total cost of this contract work was \$180,640.

CRACK SEAL

Crack sealing of various County Roads was performed by County Forces in the spring of 2015. This included roads that were to be chip-sealed as well as roads that were in need of preventive maintenance. Material and labor cost for this work amounted to \$77,235.

ROADSIDE MOWING

Despite the extra work that resulted from the heavy rains/flooding from the spring storms, every effort was made to keep at least three tractor/mowers out mowing grass along the roadways. Three rounds of mowing were completed over the some 326 centerline miles of County Roads. The first two rounds involved mowing mainly roadsides as well as intersection locations where sight distance was impacted. The third round also included backslopes in addition to roadsides and intersections. A total of \$132,827 was spent on mowing operations with an additional \$1,905 spent for weed-eating at spot locations.

TREE TRIMMING

As a result of the infestation of the emerald ash borer insect, there are a large number of dead or dying ash trees along most of the roads in Medina County. As time permits and where needed, work crews have been out in many locations performing tree trimming and removal. The work is made more difficult with the number of overhead utilities that occupy our road right-of-ways. Contractors are often utilized when large trees are encountered. During 2014 the total cost of tree removal for our crews was \$93,462.

SIGNS AND PAVEMENT MARKING

During 2015 the traffic and sign department was busy performing traffic counts, speed studies, and various site evaluations for sign and pavement marking upgrades. The sign department erected or repaired approximately 200 signs. This work was mostly necessary to repair damaged signs, replace those that were below retroreflectivity standards, and replace road name signs with new standard lettering. The sign shop also repairs and replaces mailboxes that are damaged as a result of snow removal operations.

Annual pavement marking was performed by contract to renew centerline and edgelines. Dura-Mark Inc. of Aurora, Ohio was the striping company to whom the contract was awarded for this work. A total of 152 miles of centerline and 216 miles of edgeline were painted at a cost of \$183,198..

2015 BRIDGE AND CULVERT PROGRAM

STATE ROAD BRIDGE REPLACEMENT

A steel beam bridge on State Road over Wolf Creek in Sharon Township was found to have significant section loss of several beams near the north abutment. Medina County Highway Employees removed the existing steel floor and beams and prepared the existing abutments for the placement of new prestressed concrete composite box beams. New box beams were furnished and set by Prestressed Services of Lexington Kentucky. Medina County crews completed the installation by pouring a concrete deck surface, erecting guardrail, and placing approach asphalt pavement. Total cost of the project including new box beams was \$95,348.

OHIO BRIDGE PARTNERSHIP

As part of a new program to assist local counties and cities in Ohio to replace deficient bridges, the Ohio Department of Transportation created a bridge partnership program and sponsored the replacement of four bridges in Medina County in 2015. The entire cost for the design and replacement of these bridges was born by ODOT. The bridges that were replaced were:

| | | |
|---------------|---------------|------------------------------|
| Seville Road | Bridge No. 46 | Over Camel Creek |
| Branch Road | Bridge No. 23 | Over Mallet Creek |
| Smith Road | Bridge No. 32 | Over Grays' Creek |
| Congress Road | Bridge No. 29 | Over a Branch of Black River |

OHIO PUBLIC WORKS BRIDGE AND CULVERT REPLACEMENTS

During 2015 there were two small replacements completed utilizing grants from the Ohio Public Works Commission (OPWC). These projects were designed by County Engineer Staff and constructed by contract. All structures were precast box type units with cast-in-place headwall/wingwalls. New guardrail and approach work was included where needed. The projects were as follows:

| Project Location | Contractor | Ohio Public Works Amt. | Total Amount |
|-------------------------------------|-------------------------------------|------------------------|--------------|
| River Corners Road Bridge No. 48 | Vasel Bros. Valley City, Oh | \$173,192.81 | \$234,044.34 |
| Ridgewood Road Bridge No. 29 | H.S.H Construction Wadsworth, Oh | \$187,090.65 | \$252,825.20 |

FORCE ACCOUNT CULVERT AND SHOULDER WORK

Despite having to pull away from scheduled work as a result of storm damage from heavy spring rains, the Highway Department was able to replace several road culverts, build and repair shoulders and berms on various roads, and complete a backlog of work order requests related to drainage concerns and ditching. A great deal of effort was put into completing the culvert, shoulder, and ditching work necessary to complete the preparation for a Federal Aid paving project on Fenn Road that was to be completed in 2015. This force account work was performed utilizing both County Highway equipment and personnel as well as outside contractors. During 2015 Medina County Highway Forces replaced 14 road culverts of various sizes and extended or repaired an additional eight.

HIGHWAY GARAGE PURCHASES EQUIPMENT PURCHASES

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|--|-----------|
| International Single-axle Truck With Dump Body and Hydraulics | \$141,121 |
| Case Wheel Loader With Bucket Scale | \$192,023 |
| 2 Snow Plows | \$22,202 |

All equipment was procured utilizing the State of Ohio Cooperative purchasing program.

FINANCIAL SUMMARY

The maintenance, repair and construction of roads and bridges on the County Highway System is funded primarily from portions of license plate fees collected for vehicles registered in Medina County and as well as a share of the Ohio twenty-eight cents/gallon fuel tax. No real estate or sales tax is used for highway purposes. Federal gas tax and State Issue 1 funds are utilized on Specific projects from time to time.

| 2015 EXPENSES | | 2015 REVENUES | |
|-------------------------------|--------------------|----------------------|--------------------|
| Salaries | \$2,444,539 | Gasoline Tax | \$2,356,713 |
| Fringe Benefits | \$888,989 | License Plate Fees | \$5,372,790 |
| New Equipment | \$415,035 | Fees | \$149,554 |
| Travel/Training | \$5,006 | Fines | \$33,079 |
| Road/Bridge Contract Projects | \$2,830,740 | Sales/Reimbursements | \$261,867 |
| Contract Services/Repairs | \$633,055 | Interest | \$38,995 |
| Materials/Fuel | \$1,530,361 | Other | \$16,075 |
| Miscellaneous | \$32,459 | | |
| Land | \$1,301 | | |
| Total | \$8,781,485 | Total | \$8,229,073 |

ADDITIONAL SOURCES OF REVENUE USED IN 2015 FOR ROAD AND BRIDGE CONTRACT PROJECTS

| | |
|-----------------------------|-----------|
| Ohio Public Works Issue One | \$360,282 |
| NOACA Federal Highway | \$679,256 |