

2006 MCEO BRIDGE PROJECTS

These Bridge Projects were performed completely by the Engineer's Office without any outside funding or outsourcing. 2007 will be another productive year for repairing deficient bridges in order to provide a safer highway system.

ROAD NAME	WORK PERFORMED
Coopermill Rd	Replaced Bridge with CONSPAN
Woody Ln	Replaced Bridge with Concrete Box
Philo Bridge	Deck Rehabilitation
Clay Pike	Bearing Rehabilitation
Fulton Rose Rd	Footing Stabilization
White Eyes Rd	Footer and Abutment Stabilization
School House Rd	Steel Truss Rehabilitation
Coopermill Rd	Steel Truss Rehabilitation
Coopermill Rd	Steel Truss Rehabilitation
N Deitz Ln	Wingwall Rehabilitation
Liberty St	Railroad Wood Deck Rehabilitation



Coopermill Rd before construction



Coopermill Rd during construction



Woody Ln before construction



Woody Ln during construction

ROADWAY RESURFACING AND MAINTENANCE

2006 PROJECTS COMPLETED

ASPHALT	MILES
Bagley Rd	4.11
Licking Rd	2.49
Military Rd	1.13
Old Coopermill Rd	3.35
Pinkerton Rd	2.65
TOTALS	13.73

MAINTENANCE	MILES
Ditching	180
Chip - Seal	120

2007 PROJECTS PLANNED

ASPHALT	MILES
North Dresden Rd	1.80
Dillon Falls Rd	1.64
Jackson Rd	2.52
North Dietz Rd	1.57
Wayne Ridge Rd	3.92
East Athens Rd	2.85
Pleasant Valley Rd	6.11
TOTALS	20.41

MAINTENANCE	MILES
Ditching	202
Chip - Seal	88



08/07/2006



07/31/2006

MUSKINGUM COUNTY ENGINEERS OFFICE

155 Rehl Road
Zanesville, Ohio 43701
(740)454-0155 Phone
(740)455-7180 Fax

Visit us on the web!
<http://engineer.muskingumcounty.org>

Email us!
mceo@rroho.com

MCEO 2006 ANNUAL REPORT

BACK TO THE BASICS

Maintaining a highway system requires hard work, teamwork, and money to get the job done. As a team, we have begun to switch our focus back to the basics, so to speak. Roadway maintenance, generally, is not a complex process and includes some important fundamentals. They involve proper drainage, surface maintenance, and tree and debris clearance. Proper drainage by providing a means to divert water from the road surface is essential to extend a road's useful life. Ditching and de-berming the roads are central to proper drainage. As part of an aggressive drainage approach, this will be the third year of a three year plan to ditch and de-berm every county road. After this year, the program will begin again as each county road will be ditched every third year. We have also continued replacing and repairing many culverts along and under county roads to assist in the diversion of water from the road surface. This proactive approach to ensure proper drainage will yield longer lives for our roads, which has already begun to show positive results.



Surface maintenance is another important facet of fundamental road preservation. Following the close of 2007, thirty two (32) miles of county roads will receive a new asphalt surface, which is vital to extending the life of our paved roads. In addition, we hope to continue our chip and seal program in order to maintain our sealed county roads. In 2006 our seal program included 120 miles of roads with 88 miles planned for 2007. The cost of surface maintenance, though, has begun to take a monetary toll on our local finances. Everyone feels the effects of escalating oil prices at the gas pumps, but many are unaware of the significant impacts to our road program. To accomplish our goals for chip-seal and asphalt paving, we are planning for the possibility of an additional \$250,000 to complete our 2007 paving and sealing programs due to increases in materials costs, such as hot mix asphalt and liquid asphalt for chip-seal.

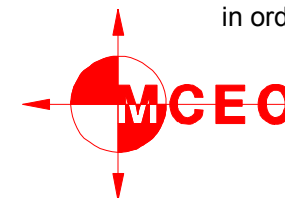
Finally, it is important to mention the need for tree and debris clearance for road sides. By cutting back trees and vegetation from roadways, sunlight will reach the road surfaces. This not only allows for safer roads during the winter months by promoting ice and snow melting, but keeps motorists safer through the reduction of fallen trees during storms, as well as permitting roads to dry at a faster rate.

Bridge maintenance is another manner in which getting back to the basics can be worthwhile. Over the past couple of years, we have begun and hope to step up our plans to perform numerous minor bridge repairs throughout the county in order to save our structures. By taking the time to complete some minor repairs, such as cleaning, painting, concrete repairs, and erosion protection, we are able to extend the life of our bridges, which will pay off for the future.

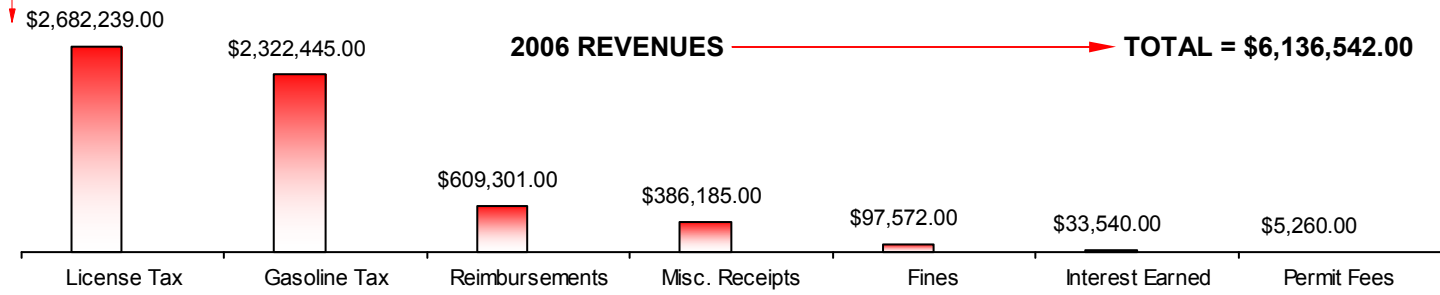
As we strive to discover the most cost effective and efficient means of maintaining our road system, we will continue to emphasize our efforts to return to the fundamentals of road and bridge maintenance in order to provide the best possible county roads for the people of Muskingum County.



Thank You For Reading The Muskingum County Engineer's Office Annual Report



DOUG DAVIS P.E.,P.S. - MUSKINGUM COUNTY ENGINEER



License Tax	43.71%
Gasoline Tax	37.85%
Reimbursements	9.93%
Misc. Receipts	6.29%
Fines	1.59%
Interest Earned	0.55%
Permit Fees	0.09%

The majority of revenues received by the Engineer's Office comes in the form of Gasoline and Vehicle License Taxes. When you fill up your gas tank or visit the license bureau to renew or buy new license plates, the engineer's office receives a portion of those taxes after the funds are distributed at the state level. Since taxes are distributed on a state-wide basis, buying gasoline anywhere in Ohio will assist the Engineer's Office with improving and maintaining the highways within Muskingum County. All 88 counties in the State of Ohio receive the same share of gasoline taxes regardless of size or amount of road miles.



Sealing

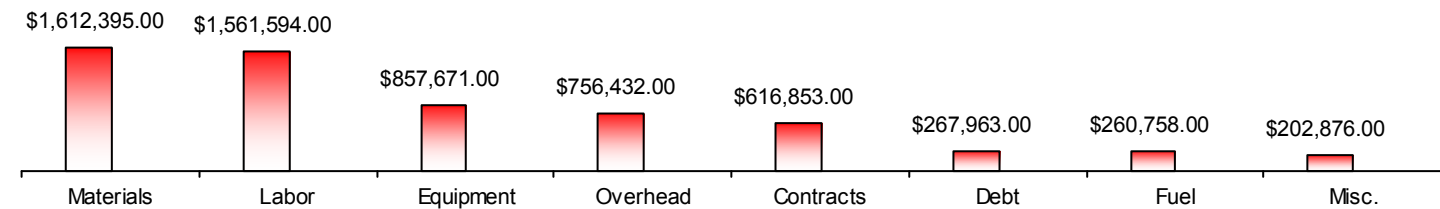


Mowing



Surveying

2006 EXPENDITURES → **TOTAL = \$6,136,542.00**



Materials	26.28%	- Stone, Salt, Cinders, asphalt for patching, coldmix and seal emulsion, bridge and culvert materials.
Labor	25.45%	- Payroll for highway and bridge crews, as well as office and administrative staff.
Equipment	13.98%	- New equipment, equipment rental, repairs and preventative maintenance for the county highway fleet.
Overhead	12.33%	- Retirement, Insurance, Worker's Compensation, Medicare, etc.
Contracts	10.05%	- Work by contractors, consultants (asphalt paving, bridge design, road and bridge repairs, etc.)
Debt	4.37%	- Debt paid on highway, bridge, and equipment loans.
Fuel	4.25%	- Gasoline and diesel fuel for trucks and equipment operated by highway crews and supervisors.
Misc.	3.31%	- Utilities, signs and traffic control, safety items, office supplies, computers and software, misc. items

IMPROVEMENTS	GRANT FUNDS	COUNTY FUNDS	MAINTENANCE	COUNTY FUNDS	MAINTENANCE	COUNTY FUNDS
Asphalt Resurfacing	\$402,572	\$141,444	Mowing	\$201,750	Flagging/Traffic Control	\$92,649
Asphalt Paving (Misc. Repair)		\$70,247	Chip-Seal	\$526,084	Hauling Stone	\$223,262
Bridge Repairs		\$371,756	Ditching	\$483,973	Pothole Patching	\$71,029
Culvert Replacements/Installations		\$146,637	Snow/ Ice Removal	\$61,339	Berm/Shoulder Restoration	\$60,550
Guardrail Repairs/Replacements		\$42,710	Traffic Signs	\$32,355	Road Repair - Coldmix	\$64,227
			Tree/Brush Removal	\$189,645		
TOTALS	\$402,572	\$772,794			TOTALS	\$2,006,863

LBR BRIDGE REPLACEMENT PROJECTS IN 2006

CUTLER LAKE ROAD - CR45

Earlier this year, these two structures were completely redesigned and replaced to ODOT standards. The old structures were Steel Trusses with an asphalt deck over metal decking. This type of structure requires routine maintenance.

The new structures now have a thick concrete deck over large steel beams with new or reinforced concrete abutments and footings.

The new structures are wider, stronger, and will require significantly less long term maintenance, which will allow us to focus on making sure that other structures are safer for the traveling public.



Cutler Lake Rd #6031-293 Before Replacement



Cutler Lake Rd #6031-269 Before Replacement



Cutler Lake Rd #6031-293 After Replacement



Cutler Lake Rd #6031-269 After Replacement

LBR BRIDGE REPLACEMENT PROJECTS FOR 2007

In 2007, three structures will be completely redesigned and replaced to ODOT standards. These structures will be wider, stronger, and will last significantly longer than the existing structures. Arch Hill Rd (CR82) and Urban Hill Rd (TR465) will use Non-composite Precast Concrete Box Beams as the main structural members on new concrete abutments and footings. They will also use the same type of steel railing constructed on the Cutler Lake Road bridges (as shown above). Green Valley Rd (CR83) will be constructed using Precast Concrete Arches (CONSPAN) on new concrete footings.

By using Precast Concrete structural members, little or no steel will be exposed to the harsh conditions that cause steel to rust. Therefore, the use of these structures allows for less overall maintenance, as well as a much longer service life.



Arch Hill Rd (CR82)



Green Valley Rd (CR83)



Urban Hill Rd (TR465)