

# 2006 ANNUAL REPORT

## Ashland County Engineer's Office & Highway Department



Ashland County Commissioners  
Ashland, Ohio 44805

March 27, 2007

Your Honorable Body:

This report from the Ashland County Engineer is in accordance with Section 5543.02 of the Ohio Revised Code.

This report provides information as to the condition of Ashland County's roads, bridges, and culverts. This report also estimates the probable amount of funds required to maintain, repair and/or construct any roads, bridges, or culverts for calendar year 2007.

Respectfully submitted,

Edward J. Meixner, P.E., P.S.  
Ashland County Engineer

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## Foreword

The purpose of this report is to provide information to the Ashland County Board of Commissioners in accordance with Section 5543.02 of the Ohio Revised Code. Additionally, it becomes a public statement on the functions and duties of the office of the Ashland County Engineer. The Ashland County Engineer will clarify or provide any additional information that may be requested.

Of particular note, in 2006 the County of Ashland was hit by a severe storm on July 10. The resources and plans of the Highway Department were significantly affected due to this storm. Several categories in this report mention this storm and itemize its impact. In total, \$207,200.52 was spent recovering from this event. Through the Ohio State Disaster Recovery Program we were able to recoup \$101,456.00 of our expenses related to this storm.



Bridge 799-3280 on July 11, 2006



## Bridges

2006 Expenditures = \$75,742.07

2007 Projected Expenditures = \$ 200,000.00

All bridges on county and township roads within Ashland County fall under the jurisdiction of the Ashland County Engineer. Bridges on state or federal highways or bridges owned by a railroad are maintained by other entities.

### Bridges—Status

Annually each bridge that is the responsibility of the Ashland County Engineer is inspected as required by Section 5543.20 of the Ohio Revised Code. In 2006, 237 bridges were inspected and given a condition rating. There are currently five structures in serious condition or worse. They are listed below.

**Structure # 175-544** in Jackson Township on County Road 175 is not posted. Plans to replace this bridge using federal funds are completed. It is anticipated this structure will be replaced in 2007. This structure's progress is itemized on page 3 under Special Bridge Projects.

**Structure #1601-20** in Ruggles Township on Township Road 1601 is posted with a 4-ton load limit. This bridge is located on the Huron/Ashland County Line just south of County Road 16. Huron County has closed this structure due to safety concerns and is making plans for replacement as funds become available. Ashland County is responsible for 50% of the cost of replacement.

**Structure # 1688-1455** in Milton Township on Township Road 1688 is not posted. Plans to replace or rehab this structure will begin this year.

**Structure # 63-1220** in Perry Township on Township Road 63 is posted with a 20-ton load limit. Plans to replace this structure will begin this year.

**Structure # 500-1411** in Ruggles Township on County Road 500 is posted with a 30-ton load limit. Plans to replace this structure will begin this year.

The chart on the following page summarizes the condition of all Ashland County bridges.

## Inspection Chart of Bridges and Condition Codes

<u>Rating</u>	<u>Description</u>	<u># of Bridges</u>
9	New condition	45
8	Very good condition - no repairs needed.	53
7	Generally good condition - potential exists for minor maintenance.	29
6	Satisfactory condition - potential exists for maintenance	51
5	Fair condition - potential exists for minor rehabilitation.	36
4	Poor condition - potential exists for major rehabilitation.	18
3	Serious condition - repair or rehabilitation required immediately.	4
2	Critical condition – should be closed or closely monitored.	1
1-0	Imminent failure or out of service	0

### Bridges—Completed Projects

**Structure # 2250-100** in Mohican Township on Township Road 2250 this structure was an 80-foot span solid warren truss bridge posted with a 30-ton load limit. It was replaced with a 94-foot span continuous reinforced concrete slab type structure. Construction costs paid for this project in 2006 totaled \$332,814.38 and was partially paid with Issue II monies. The progress of this project is itemized on page 3 under Special Bridge Projects.



Before



After

**Structure # 1097-2190** in Mifflin Township on Township Road 1097 this structure was a 12-foot by 5-foot corrugated metal arch. It was replaced with a 60-inch plastic culvert. The cost of this project was \$12,313.10 paid from G&MV funds using force account labor and equipment.

**Storm Damage:** There were three structures damaged by the flooding on July 10, 2006 in Hanover Township. These were structure numbers 629-3130, 799-3280, and 3275-820. The repair work consisted of filling washed out approaches and filling scour holes around the abutments. The total cost of repairing these structures was \$22,878.06.

**Routine Maintenance:** Along with these large construction projects we performed maintenance and repair work on 63 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 \$40,550.91.

## Bridges—Proposed Work

The majority of our problem bridge structures will be replaced using federal and state funds. These replacements will occur over the next several years as these structures work through their respective review “pipelines” and are let out to bid. Plans are to rehabilitate the following four structures in 2007.

**Structure # 175-544** on County Road 175 in Jackson Township is a steel beam type structure built in 1965. Plans are to replace this structure with a 50-foot span composite pre-stressed box beam structure. The estimate for this project is \$310,000.00. This will be a federal aid project and its progress is itemized under Special Bridge Projects below.

**Structure #2175-2020** on County Road 2175 in Vermillion Township is a steel girder type structure built in 1971. Plans are to replace the steel with new galvanized steel and wood deck. The force account estimate for this work is \$88,773.00.

**Structure #1181-155** on County Road 1181 in Ruggles Township is a steel beam type structure built in 1975. Plans are to replace the deteriorated wood deck with a new wood deck. The force account estimate for this work is \$22,364.00.

**Structure #658-1340** on County Road 658 in Clear Creek Township is a steel truss type structure built in 1969. Plans are to replace the stringers with new galvanized stringers and wood deck. The force account estimate for this work is \$74,077.

## Bridges—Special Projects

Special Bridge Projects are defined as those funded with money from sources outside of Ashland County. The following table summarizes information concerning these projects.

<b>Structure No:</b>	<b>#2250-100</b>	<b>#175-544</b>	<b>#30-A-390</b>
<b>Township:</b>	Mohican	Jackson	Mohican
<b>Type of Project:</b>	State Issue II	Federal Aid	State Issue II
<b>Name of Consultant &amp; date hired:</b>	Richland Engineering 9/23/04	Shaffer, Johnston 6/16/03	In-House
<b>Costs paid in 2006:</b>	\$ 23,783.47	\$ 0	\$ 0
<b>Planning fees paid to date:</b>	\$65,337.07	\$47,000.00	\$ 0
<b>Soil Borings: Amount paid &amp; date:</b>	\$4,000.00 6/23/05	\$3,750.00 8/19/04	Not Needed
<b>Name of Firm:</b>	Resource Int.	Resource Int.	
<b>Right-of-way cost to date:</b>	\$ 2,155.00	\$ 2,093.00	Not needed
<b>Right-of-way status:</b>	Completed	Completed	Not needed
<b>Sale Date:</b>			
<b>Contractor:</b>	R&I Construction		
<b>Bid Amount:</b>	\$ 307,063.55		
<b>Total project cost to date:</b>	\$ 404,226.55	\$ 53,018.00	
<b>Current Status:</b>	Completed		
<b>Completion of Construction:</b>	September 2006		
<b>Outside Contributions &amp; amount:</b>	\$ 235,090.61		



A culvert is described as being any structure with a span less than ten feet. Ashland County currently maintains 1422 culverts.



## Culverts – Completed Projects

Work that occurred on these structures in 2006 included replacement of existing culverts with new culverts, extending existing culverts, or general repair work on existing culverts. A total of 47 culverts were worked on at a cost of \$102,828.06. The major culvert projects are listed below:

**Culvert #2000-13** on County Road 2000 in Mohican Township was a 60-inch diameter corrugated metal culvert. It was replaced with a 60-inch diameter plastic culvert 60-feet in length at a cost of \$14,167.85.

**Culvert #2256-15** on County Road 2256 in Vermillion Township was a 60-inch diameter corrugated metal culvert. This was replaced with a 48-inch diameter plastic culvert 60-feet in length at a cost of \$9,711.70

**Culvert #1475-11** on County Road 1475 in Milton Township was a 48-inch diameter corrugated metal culvert. This was replaced with a 48-inch diameter plastic culvert 60-feet in length at a cost of \$8,454.16.

**Culvert #2000-9** on County Road 2000 in Mohican Township was a 36-inch diameter corrugated metal culvert. This was replaced with a 36-inch diameter plastic culvert 50-feet in length at a cost of \$4,169.29

**Storm Damage:** There were four culverts damaged by the flooding on July 10, 2006. They were culvert numbers 1027-8, 3275-25, 917-8, and 2075-10. Repair work consisted of replacing washed out and plugged culverts, and repairing inlet/outlet embankments. Total cost of repairs to these items was \$16,051.38.

## Culverts—Proposed Work

In recent years we have been able to place a priority on replacing culverts because of the general good health of our bridges. In determining which culverts to replace, condition and/or length (short lengths create narrow roads) are considered. Currently, there are plans for maintenance work on 30 culverts in 2007. Listed below are three major culvert projects planned for 2007.

**Culvert #995-33** on County Road 995 in Montgomery Township is a 8-foot by 5-foot concrete box culvert. This will be replaced with a 8-foot by 4-foot concrete box culvert. The force account estimate for this work is \$30,968.73.

**Culvert #377-14** on County Road 377 in Mohican Township is a 54-inch by 72-inch corrugated metal arch and 45-inch by 58-inch concrete box culvert. This will be replaced with a 48-inch diameter plastic culvert. The force account estimate for this work is \$10,533.61

**Culvert #2175-35** on County Road 2175 in Vermillion Township is a 84-inch by 108-inch corrugated metal arch culvert. This will be replaced with a 60-inch diameter plastic culvert. The force account estimate for this work is \$24,234.00



## Roads

2006 Expenditures = \$ 1,688,549.00

2007 Projected Expenses = \$ 1,800,000.00

The maintenance of our roads consumes the greatest amount of time and money by both the administrative personnel and the maintenance department. The existence of Ashland County Roads is why we plow snow, use salt, paint centerlines, etc. It is why we have the equipment we do, why we pave, seal, patch, erect signs, issue permits and do roadside maintenance. The sections that follow address our activities in these areas during the past year and our plans for 2007.



CR 3006

### Roads—Surface—Paving

The cost of asphalt rose significantly in 2006, as a result we paved only one road last year. The contract for this work was awarded to Shelly and Sands Company at an expenditure of \$538,238.22.

A 5.05 mile section of County Road 30A from US 30 to the Wayne County Line was resurfaced with a ¾" leveling course of 448 Type 1 leveling asphalt, covered with paving fabric, and paved with a 1½" layer of 448 Type 1 surface asphalt. This project also included berming and the installation of guardrail where required.



CR 30A

A spring assessment will determine the paving to be done in 2007. The expense is estimated to be \$900,000.00

### Roads—Surface—Maintenance

During 2006 we sealed about 60 miles of County Roads using multigrade sealing liquid and Ashland County special #8 limestone. There was a total of 196,132 gallons of liquid asphalt used at a cost of \$263,228.76. There was 7,572.75 tons of limestone used at a cost of \$83,611.75. This work was contracted out to Lloyd-Porter and Porter at an expenditure of \$77,276.01. The total cost of the sealing program was therefore \$424,116.51. Providing a unit cost of \$0.5963 per square yard or about \$7,144.70 per mile for a 20-foot wide road. For 2007 we estimate we will seal 50- 60 miles of road at a cost of \$500,000.00

### Roads—Surface—Marking

During 2006 we contracted with Oglesby Construction Inc. in the amount of \$188,543.02 for the centerlining of various county roads. This represented the painting and/or re-painting of some 282 miles of road. As a part of this contract we had 69.5 centerline miles of edgelineing done, 20 railroad crossings, and 31 school zones. We plan to continue with this type of marking program in 2007 and expect to expend \$ 200,000.00 total for this work.

### Roads—Surface—Snow & Ice Control

Snow and ice control costs for the last two winter seasons are itemized below:

	2004-2005	2005-2006
Salt & Grits	\$ 299,436.51	\$ 144,467.86
Labor	57,451.17	37,010.97
Equipment	53,405.00	37,968.00
	<u>\$ 410,292.68</u>	<u>\$ 219,932.72</u>



## Roads—Surface—Permits

Special hauling permits are issued by the Engineer's Office pursuant to Section 4513.34 of the Ohio Revised Code. These permits make us aware of unusual loads that our roads have to bear and allow us to restrict the movement of such loads that could result in failure of our infrastructure. All individuals, firms, partnerships, companies or corporations wishing to operate or move a vehicle or combination of vehicles of a size or weight exceeding the maximum specified in Sections 5577.01 to 5577.09 of the Ohio Revised Code on any Ashland County maintained highway is required to obtain such a permit. Prior to 2006 equipment was not available for the Ashland County Sheriff to enforce this permit requirement and few such permits were issued. With the purchase and implementation of portable scales enforcement is now possible. In 2006 our office issued 11 trip and return permits, 5 annual overweight permits, 3 annual over width permits, and 6 construction equipment permits. Currently the Engineer does not assess any fees in association with the permitting process.

## Roads—Right-of-Way—Maintenance

During 2006 the County Highway Department expended the following amounts for the following work: Mowing—\$40,466.37; Brush Cutting—\$86,728.22; Ditching—\$74,796.62; Erosion Protection—\$3,435.75; Roadside Cleaning—\$3,585.11. The total for right-of-way maintenance in 2006 was \$209,012.07. Of this amount \$51,651.57 was related to the July 10 storm.

We anticipate that a like amount will be expended in 2007.

## Roads—Right-of-Way—Guardrail

Most of the guardrail work done by the Ashland County Highway Department is to maintain existing guardrail and install new guardrail in conjunction with paving, widening, or bridge projects. During 2006 we expended \$67,675.68 for guardrail maintenance and installation. Guardrailing cost in 2007 is estimated at \$80,000.00.



## Roads—Right-of-Way—Signs

Ashland County installs only “diamond” grade sign faces. This grade of sign is the most highly reflective and has the longest life currently available. While this does add some cost to the sign face, it is a minimal amount when compared to the total sign installation cost, especially when the reflectivity is six to eight times as great and the life expectancy is considerably longer than other facings. The Highway Department annually performs a night inspection of all of the signs along county roads. This provides an excellent record of the sign conditions and it is used for our replacement program. During 2006, in addition to our night inspection, a grant from the Ohio Department of Public Safety enabled us to commission a sign study done by MasterMind Inc. The study provided us with a computerized inventory of all our signs. This information will help us in our efforts to keep our signs in good condition, and properly placed. In 2006 we expended \$41,031.08 doing sign work. We anticipate spending \$60,000.00 for sign work in 2007.

## Roads—Right-of-Way—Permits

Right-of-way permits are issued by the County Engineer for work within county road rights-of-way. Such work includes enclosing ditches, performing utility work, and installing residential driveways and farm field entrances. Driveway entrance construction and maintenance are the responsibility of the property owner in accordance with Section 5543.16 of the Ohio Revised Code. During 2006 permits were issued for **54** residential driveways, **11** ditch enclosures, **14** field drives, and **26** utility work projects.

## Roads—Special Projects

Previous annual reports have mentioned the problems on County Road 1575 near the intersection of US 250. Most of these problems had been associated with truck traffic turning into or leaving the Travel Centers of America (TA) truck stop located at this intersection. Our office had been working on a project to relieve the congestion caused by the truck traffic as well as provide a pavement that can withstand the wear and tear of the trucks turning into this facility. We secured State Issue II funds to help in the construction of this improvement. In early 2005 TA notified us of plans to change this facility to an automobile fueling and food service facility with no service to heavy trucks. By the end of the summer the new GOASIS facility was completed and open to the public. While these changes were occurring TA was involved with negotiations with ODOT concerning their proposed entrances. After the submission to ODOT of several traffic studies and variance requests and appeals, TA has been permitted to construct a new entrance onto US 250. We have completed plans to add a third lane along CR 1575 using the Issue II funds that were initially available to us. The additional right-of-way needed for this project has been purchased. The project is being bid with construction to be completed by August 17, 2007.



## Equipment

**2006 Expenditures = \$274,371.06**

**2007 Projected Expenses = \$250,000.00**

The following equipment was purchased in 2006:

2	IH Tandem Dump Trucks	\$ 208,569.46
1	Haenni—Loadmeter Scales	\$ 65,301.60
1	Hydron Post Puller Unit	\$ 500.00

In 2007 we have already purchased two pickups, a 20-ton equipment trailer, 2 trailers, and 2 remote controlled flagger units at a cost of \$90,054.60.

Other anticipated purchases include replacing a backhoe and purchasing six new hydraulic systems for our dump truck fleet at an estimated cost of \$75,000.00 and \$60,000.00 respectively. The hydraulic systems will enable us to better control the amount of salt being disbursed on the roads.



New Tandem Dump Truck





## Buildings & Grounds

In 2006, the Highway Department earned the Excellence in Storage Award sponsored by the Salt Institute. This award is given to organizations that follow sound ecological practices in the storage and usage of salt. The salt storage facility completed in 2005 played a vital role in receiving this award.

During 2006 we continued to pay the County Highway Department's share of the bond payment for the garage building. This expense was \$76,110.00. For 2007 we will spend \$76,540.00 for this purpose. The final payment on this debt will occur in 2008.



Salt Storage Building



## Personnel

During 2006 members of our department received several distinctions.

In January, Engineer Ed Meixner was awarded the Engineer of the Year by the County Engineers Association of Ohio. This award is given to the Ohio County Engineer who has made the largest contribution in the area of county engineering. Mr. Meixner's nomination was largely based on his work to standardize practices within County Engineering departments across the state as Co-Chairman of the Policy & Procedures Committee of the CEAO.



Jeff Dziak

In March, highway worker Jeff Dziak was named the Safety Employee of the Year by the Ashland County Chamber of Commerce. Dziak often leads the tree cutting and brush cutting crew of the Highway Department. As the crew leader he ensures safe and proper procedures are being followed. Despite the large amount of tree removal done under adverse conditions in 2005 there were no lost-time accidents reported.

As mentioned earlier, the Highway Department earned the Excellence in Storage Award sponsored by the Salt Institute. This award is given to organizations that follow sound ecological practices in the storage and usage of salt. Earning this award reflects well on the entire Highway Department and their commitment to safe salt handling practices.



The relative stability of our work force continued in 2006 with one new employee and one resignation. In February, Becky Schaly took over the Administrative Assistant's position vacated by Stacey Rogers in 2005. In March, highway worker Jerry Carpenter left us for employment with a private company. The position he vacated has not been filled.



## Aid to Townships

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Since 1968 the county and the townships have had an agreement whereby the county provides financial assistance to each township primarily based on the miles of roadway contained within that township. Due to this agreement we provided some \$60,808.00 to the fifteen townships of Ashland County in 2006. We anticipate continuing this practice for 2007.



## Items of Continuing Concern

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Working with the Ashland County Auditor, the County Commissioners, and other entities we have continued to make progress towards the implementation of a GIS system for Ashland County. In late 2005 and early 2006 we made arrangements to take advantage of acquiring aerial photography, digital orthophotos, and elevation models from the Ohio Statewide Imagery Program (OSIP). At this point, we have not received the final products from this program, but we have seen the preliminary work and the final work is being reviewed and checked for quality control by the State. In the meantime, we have purchased hardware and software in the Tax Map Office as well as provided training in an effort to be able to maintain the tax maps in a digital format which will be necessary to maintain as the base map for the GIS system. Currently, we are finalizing the specifications and RFP documents to provide for the conversion of the hard copy maps to digital format as a project to be initiated in 2007.

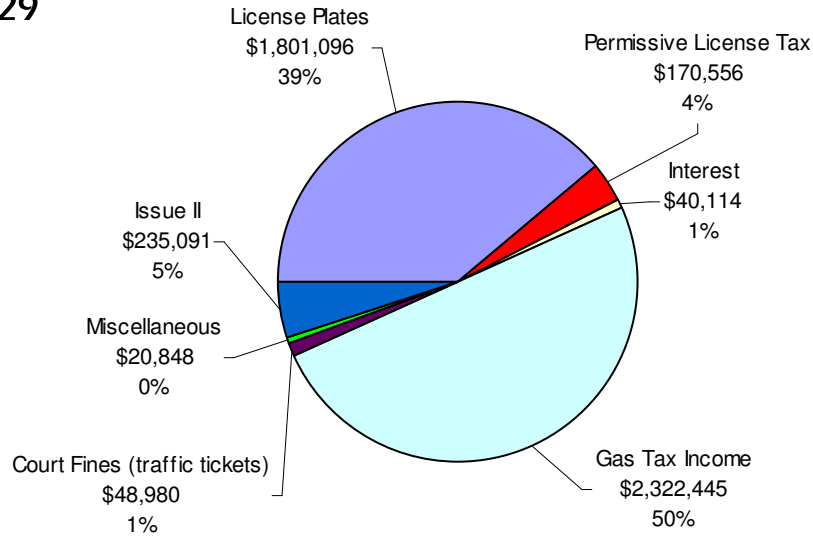
Growth issues that affect our office are usually one of three types. First, we see road access problems of the type where driveways are located in areas that have sight distance problems. We attempt to dissuade the owners from situating driveways in dangerous locations through our right-of-way permit process, but we usually have little success. Second, we see situations where storm water runoff from newly developed lots cause runoff problems for neighbors and residents further downstream. Finally, we see water quality problems from outflows from septic tanks that outlet into ditches and slow moving watercourses. I have no authority to resolve the storm water runoff or septic outflow concerns that come to our attention. This causes the public great frustration, as they do not know whom to turn to resolve their problems. A county building department and a sewer district could help to solve many of these concerns. Changes to the County's subdivision regulations as permitted by Senate Bill 115 will also provide some relief.

As stated previously, for many years the Ashland County Engineer's Office has provided house numbers for new residences for the commissioners. This numbering system is slowly becoming obsolete and will have to eventually be changed. It is my opinion that this work is more appropriately provided by the Sheriff's 911 Department. A new system tied into a GIS program could allow us to eliminate our involvement and reduce a level of bureaucracy that is unneeded.



## Budget Charts

### Revenue \$4,639,129



### Expenses \$4,061,791

