

# Pricing out Road Projects and Force Account

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# Costing out a Road Project

## *Topics for Discussion*

- Do I really have to work with that County Engineer or can I work on my own???
- When does a township have to bid out a project?
- What exactly is force account work?
- What if no one bids on the project?
- What should townships look for when hiring a company to do road work?
- What must be included when costing out a project?
- Best practices for costing out a project

# Costing out a Road Project

## *Basic Responsibilities of the County Engineer*

- Responsible for the maintenance, repair, widening, resurfacing and reconstruction of pavements and bridges in the County Highway System.
- Responsible for the bridges on both County and Township Highway Systems.
- Performs the annual inspection and evaluation of the condition and load-carrying capacity of each bridge. The statutes regulating this duty require a uniform method of procedure and recordkeeping.
- Serves as the County Tax Map Draftsman for the County Auditor
- Serves as the Engineer for all County Public Improvements
- Serves as an engineering advisor to the Township Trustees for the maintenance, widening and repair of their highways.

# Costing out a Road Project

## *Basic Responsibilities*

So do I really have to work with him/her... and if I do, WHEN do I have to?

- The Ohio Revised Code says .... Yes
- ORC 5573.01 Resolution for Road Improvement
  - When the board of township trustees has determined that any road shall be **constructed, reconstructed, resurfaced, or improved**, the board shall determine by resolution, by unanimous vote if and by a majority vote if acting upon a petition, the route and termini of the road, and the kind and extent of the improvement, and at the same time shall **order** the county engineer .....



# Costing out a Road Project

## *Basic Responsibilities*

- ORC 5573.01 Resolution for Road Improvement (continued)

...or, if the township has adopted a limited home rule government under Chapter 504. of the Revised Code, hire an independent professional engineer, after notifying the county engineer, to make surveys, plans, profiles, cross sections, estimates, and specifications as are required for the improvement. If an independent professional engineer is hired, the county engineer shall review all of the independent professional engineer's plans for improvements and provide the board of township trustees with comments on those plans within ten working days after receiving them. The county engineer shall monitor all of the independent professional engineer's plans for improvements in order to maintain compliance with existing construction standards and thoroughfare plans, and coordinate construction timelines within the county.



# Costing out a Road Project

## *Basic Responsibilities*

- ORC 5573.01 Resolution for Road Improvement (continued)

- If the board orders the county engineer to act under this section, the board may order the county engineer to make alternate surveys, plans, profiles, cross sections, estimates, and specifications, providing in them for different widths of roadway, or different materials, and approve all or any number of these alternate surveys, plans, profiles, cross sections, estimates, and specifications. The county engineer may, without instructions from the board, prepare alternate surveys, plans, profiles, cross sections, estimates, and specifications, providing in them for different widths of roadways or different materials. When alternate surveys, plans, profiles, cross sections, estimates, and specifications are approved by the board, or submitted by the county engineer on the county engineer's own motion, the board and county engineer shall, after the opening of bids, agree which of the surveys, plans, profiles, cross sections, estimates, and specifications shall be finally adopted for construction of the improvement.

# Costing out a Road Project

## *Basic Responsibilities*

That's what the law says .... But that's CRAZY!!!!

- Talk to the County Engineer or his staff first.
  - Nothing upsets someone more than an ORDER.
- Discuss the scope of the project and it's desired outcome.
- Discuss the County Engineer's schedule for getting your project completed.
  - Remember ... He has his own projects too and the ORC doesn't say when he has to get it done.

# Costing out a Road Project

## *Basic Responsibilities*

- Then go to your Township Meeting and adopt a Resolution to undertake the Project and Order the County Engineer to develop Plans, Specifications and Estimates.
  - Remember ... These are Plans, Specifications and Estimates not a contract bidding document.
  - Some County Engineers may put those things together and have a nice neat bid document with prevailing wage requirements that your County Prosecutor can look over and approve before you bid.





# Costing out a Road Project

## When does a township have to bid out a project?

- The Ohio Revised Code recently changed and says..... **a lot of stuff**
  - **NEW** ORC 5575.01 (A) says ..... (A) In the **maintenance and repair** of roads, the board of township trustees may proceed either by contract or force account, but, unless the exemption specified in division (C) of this section applies, if the board wishes to proceed by force account, it first shall cause the county engineer to complete the force account assessment form developed by the auditor of state under section 117.16 of the Revised Code. Except as otherwise provided in sections 505.08 and 505.101 of the Revised Code, when the board proceeds by contract, the contract shall, if the amount involved exceeds one hundred five thousand dollars, be let by the board to the lowest responsible bidder after advertisement for bids once, not later than two weeks, prior to the date fixed for the letting of the contract, in a newspaper of general circulation within the township. **If the amount involved is one hundred five thousand dollars or less, a contract may be let without competitive bidding, or the work may be done by force account.** Such a contract shall be performed under the supervision of a member of the board or the township road superintendent.

# Costing out a Road Project

*When does a township have to bid out a project?*

- The Ohio Revised Code .....(continues)
  - **NEW** ORC 5575.01 (B) Before undertaking the **construction or reconstruction of a township road**, the board shall cause to be made by the county engineer an estimate of the cost of the work, which estimate shall include labor, material, freight, fuel, hauling, use of machinery and equipment, and all other items of cost. If the board finds it in the best interest of the public, it may, in lieu of constructing the road by contract, proceed to construct the road by force account. Except as otherwise provided under sections [505.08](#) and [505.101](#) of the Revised Code, where the total estimated cost of the work exceeds **thirty-five thousand dollars per mile**, the board shall invite and receive competitive bids for furnishing all the labor, materials, and equipment and doing the work, as provided in section [5575.02](#) of the Revised Code, and shall consider and reject them before ordering the work done by force account. When such bids are received, considered, and rejected, and the work is done by force account, the work shall be performed in compliance with the plans and specifications upon which the bids were based.

# Costing out a Road Project

## *When does a township have to bid out a project?*

- The Ohio Revised Code .....(continues)
  - **NEW** ORC 5575.01 (C) Force account assessment forms are not required under division (A) of this section for road maintenance or repair projects or under division (B) of this section for road construction or reconstruction projects of less than one-third of the applicable force account limit.
  - **NEW** ORC 5575.01(E) On the first day of July of every year beginning in 2024, the threshold amounts established in divisions (A) and (B) of this section shall increase by an amount not to exceed the lesser of five per cent, or the percentage amount of any increase in the department of transportation's construction cost index as annualized and totaled for the prior calendar year. The director of transportation shall notify each appropriate county engineer of the increased amount.
  - ORC 5575.01(E) All force account work under this section shall be done under the direction of a member of the board or the township road superintendent.

# Costing out a Road Project

When does a township have to bid out a project?

- In short.....
- Maintenance and Repair of roads - \$105,000 or more – By Competitive Bid Contract
- Construction and Reconstruction of Roads - \$35,000 or more per mile – By Competitive Bid Contract
- How can I get around the Law..... Don't Try. You will get caught.



# Costing out a Road Project

*What exactly is force account work?*

- **Force Account** is the procedure by which the trustees themselves purchase the material necessary for a **highway maintenance or repair project**, employ and pay out of the township funds the persons who apply such material, using township owned or leased equipment to do such. In such an instance **no formal contract is entered into for the entire project. OAG No. 39-816.** [From the Ohio Township Handbook March 2012]
- This includes all Township Labor (Including Trustees), equipment and materials to perform the work.
- **NEW** Township **MUST** have **County Engineer** develop a **Force Account Estimate** on approved Auditor of State Forms for the project for all **Road Maintenance and Repair projects that are over \$35,000** and **Road Construction and Reconstruction that are over \$11,667 per mile.** [ORC 5575.01 C]

# Costing out a Road Project

## What if no one bids on the project?

- **First.....Don't let that happen**
  - Before you advertise, call local contractors to let them know about the project
  - Find out if they are interested in that type of a project
  - After advertising, give them a set of plans and bid documents
  - Ask them to submit their questions in writing
  - Call them a couple days before the deadline and ask if they see any issues that would prevent them from bidding
  - If no one is going to bid ... **Go ahead and Proceed! New to ORC 5575.01(B) allows Township to move forward.**

# Costing out a Road Project

*What should townships look for when hiring a company to do road work?*

- Experience in that specific type of work
- Experience in working with County / Township government and understand the process
- Make sure they are not Debarred (not allowed to Work in Ohio)
  - ODOT - <https://www.transportation.ohio.gov/working/contracts>
  - Sec of State — <https://www.sos.state.oh.us/records/debarred-contractors/>
  - Ohio DAS - [https://procure.ohio.gov/bidders-and-suppliers/resources/08\\_debarment-csv-list](https://procure.ohio.gov/bidders-and-suppliers/resources/08_debarment-csv-list)

# Costing out a Road Project

*What should townships look for when hiring a company to do road work?*

- Check Findings for Recovery
  - Auditor of State - <https://ohioauditor.gov/findings.html>
- Make sure they are current with Ohio Workers Comp
  - Have them provide a copy of their current Certificate
- Make sure they have Insurance
  - Have them provide a copy of their current Insurance Certificate with Declarations Information and have your County Prosecutor review this for you.
- Make sure they have a Performance and Payment Bond
  - Have your County Prosecutor review this for you. Its complicated and the ORC has specific language that has to be in the Bond.



# Costing out a Road Project

*What all must be included when costing a project out?*

- Now the Meat and Potatoes-Taters ....



- What do I need to include .... Everything to get the job done
- Remember ... ORC 5573.01 says the County Engineer has to do this for you.
- What he needs from you..... He needs SPECIFICS

# Costing out a Road Project

*What all must be included when costing a project out?*

- What he needs from you..... He needs specifics (Continued)
  - Where is the project?
  - Where is the beginning and end of the project
  - What specifically do you want to do ... Maintenance and Repair or Construction and Reconstruction ... Remember each has different limits
  - Do you want to use Force Account (Your own people) or Contract the work
  - General Idea of what you think your road needs
  - When do you need the project completed

# Costing out a Road Project

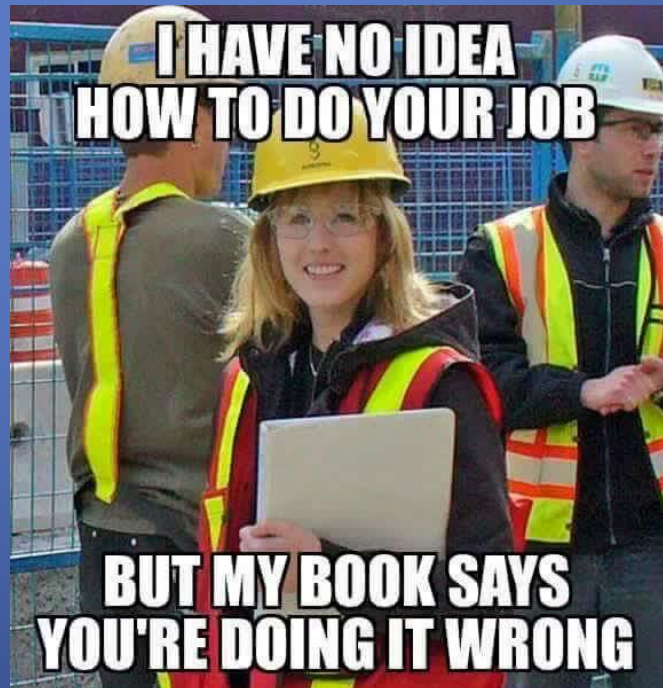
## *Best practices for costing out a project*

- Your not going to like this..... But it is County Engineer's call on what it will take and what it will cost to do your project.
- It is his Professional License (and Career) that is on the line
- You can ask him for alternative designs.
- Ask him if you can be involved with design and cost estimate reviews

# Costing out a Road Project

*Best practices for costing out a project*

- If the project is Force Account Work...
- You must use the Auditor of State Form -  
<https://ohioauditor.gov/references/development/ForceAccountProjectAssessmentForm.pdf>
- It looks like this.....





## Force Account Project Assessment Form (Estimate)

Ohio Revised Code 117.16 requires the Auditor of State to develop a force account project assessment form to be used by each public office to estimate or report the cost of a force account project. The form shall include costs for employee salaries and benefits, any other labor costs, materials, freight, fuel, hauling, overhead expense, workers' compensation premiums, and all other items of cost and expense, including a reasonable allowance for the use of all tools and equipment used on or in connection with such work and for the depreciation on the tools and equipment.

**This form is to be completed as provided in Auditor of State Bulletin 2003-003.**

**Lawrence County Engineer 2014**

**Project Name/Number:** Chesapeake High School Storm Sewer

**Project Description:** Furnish and Install 480-feet of 24-Inch HDPE along County Road 1 due to collapsed pipe along ditch line

**Proposed Start Date:** ANY                      **Proposed End Date:** SAME DAY

**ESTIMATED LABOR** (please complete the shaded fields)

Description	Base Wage	Hours Worked	Total
FOREMAN (HWS1)	\$23.30 X	40 =	\$932.00
EQUIPMENT OPERATOR 2 (EO2)	\$20.05 X	40 =	\$802.00
EQUIPMENT OPERATOR 1 (EO1)	\$19.90 X	0 =	\$0.00
TRUCK DRIVER (HWW2A)	\$19.75 X	120 =	\$2,370.00
BRIDGE WORKER (HWW3)	\$19.75 X	0 =	\$0.00
LABORER (HWW1)	\$19.50 X	0 =	\$0.00
	X	=	\$0.00
	X	=	\$0.00
	X	=	\$0.00
	X	=	\$0.00
Total Base Wages			\$4,104.00
30 % of base wages (fringe benefits, BWC, etc.)			\$1,231.20
38 % of wages and fringe benefits for overhead			\$2,027.38
<b>Total Labor Estimate</b>			<b>\$7,362.58</b>

**ESTIMATED MATERIALS** (please complete the shaded fields)

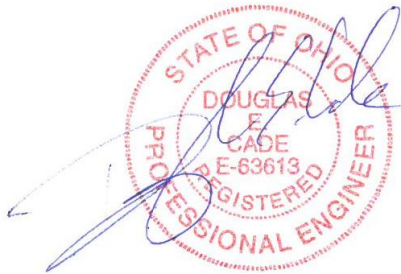
Description	Unit	Quantity	Unit Type	Total
Aggregate Backfill ODOT 304	\$17.15 X	65	TON	\$1,114.75
Concrete Catch Basin	\$350.00 X	2	EA	\$700.00
24 -Inch Culvert Pipe	\$14.57 X	480	LIN FT	\$6,993.60
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
	X			\$0.00
Base Materials				\$8,808.35
15 % of base materials for overhead				\$1,321.25
<b>Total Materials Estimate</b>				<b>\$10,129.60</b>

**ESTIMATED EQUIPMENT** (please complete the shaded fields)

Each piece of equipment used in a project must be assigned an hourly rate. For equipment owned by the public entity, this rate must reflect the original purchase price of the equipment, maintenance costs, time in service, depreciation, freight, fuel, and hauling. The public office may use any generally accepted rate that reflects all of the aforementioned considerations, or it may use the statewide rates as published by the Ohio Department of Transportation and updated on a quarterly basis; however, the office must use the same rate source for all equipment used in a project. Any equipment rented by the public entity must be listed in the form and reflect the actual rental rate.

Description	Rate per Hour		Hours	=	Total
CREW CAB (3/4 TON P/U AP66/67)	\$12.50	X	40	=	\$500.00
SA DUMP TRUCK (5CY BED AD93/98 & 30/37)	\$25.00	X	80	=	\$2,000.00
SA BRIDGE TRUCK (FLATBED AT20)	\$19.00	X	0	=	\$0.00
SA BITUMINOUS DISTRIBUTOR (AT17)	\$42.00	X	0	=	\$0.00
ETNYRE CHIPSPREADER ("USED" CS1)	\$31.50	X	0	=	\$0.00
CHIP&SEAL ROLLER ("USED" R10)	\$29.50	X	0	=	\$0.00
PATCH ROLLER 4-6 TON (R9)	\$16.00	X	0	=	\$0.00
LOADER/BACKHOE(CASE580/90 L11/14/15/16)	\$26.00	X	40	=	\$1,040.00
GRADER (G28/29)	\$31.50	X	0	=	\$0.00
TRUCK CRANE (20TON LINK BELT S6)	\$47.00	X	0	=	\$0.00
		X		=	\$0.00
		X		=	\$0.00
		X		=	\$0.00
<b>Total Equipment Estimate</b>					<b>\$3,540.00</b>

**TOTAL ESTIMATED PROJECT COST** \$21,032.18  
(labor + materials + equipment)



Prepared by: Douglas E. Cade P.E., P.S.

Title: Lawrence County Engineer

Date: March 21, 2014

# Costing out a Road Project

## *Best practices for costing out a project*

- So where did THOSE numbers come from?????
- Labor is what the Township pays its employees per hour minus benefits and overhead ... Yes you have to tell this to the County Engineer. It's Public Record anyway.
- What's those percentages at the bottom????
  - Fringe Benefits – Workers Comp, PERS, Employer part of FICA
  - Overhead – Costs not directly attributed to the project such as computer, printer, paper, staples

# Costing out a Road Project

## *Best practices for costing out a project*

- So where did those numbers come from????? (continued)
  - Materials are the detailed list of materials that will be used on the project.
  - Comes from the County Engineer's Plans and Specifications  
.... If the project is large and complex enough to have plans
  - Costs are from likely suppliers or vendors to the project or from County / Township Annual Material Bid
  - What's that percentage thingy at the bottom????
    - A standard markup for overhead costs (time ordering, etc.)



# Costing out a Road Project

## *Best practices for costing out a project*

- So where did those numbers come from????? (continued)
- Equipment is the detailed list of vehicles and equipment that you are going to use on the project.
- Hours are the actual hours of operation ... not idle or on site time.
- Rate per hour is your actual cost per hour of the equipment
  - Use ODOT Standard Rates -  
<http://www.pwc.state.oh.us/Documents/ODOT2015EquipmentRates.pdf>
  - Use FEMA Rates - <http://www.fema.gov/schedule-equipment-rates>
  - Do your own calculation ... Very difficult but you can do it if you document your calculations.

# Costing out a Road Project

*Best practices for costing out a project*

## Remember ...

- Maintenance and Repair of roads - \$105,000 or more – By Competitive Bid Contract
- Construction and Reconstruction of Roads - \$35,000 or more per mile – By Competitive Bid Contract
- Township MUST have County Engineer develop a **Force Account Estimate** on approved Auditor of State Forms for the project for all Road Maintenance and Repair projects over \$35,000 and Road Construction and Reconstruction that are over \$11,667 per mile. [ORC 5575.01 C]
- How can I get around the Law..... Don't Try. You will get caught.

# Costing out a Road Project

*Best practices for costing out a project*

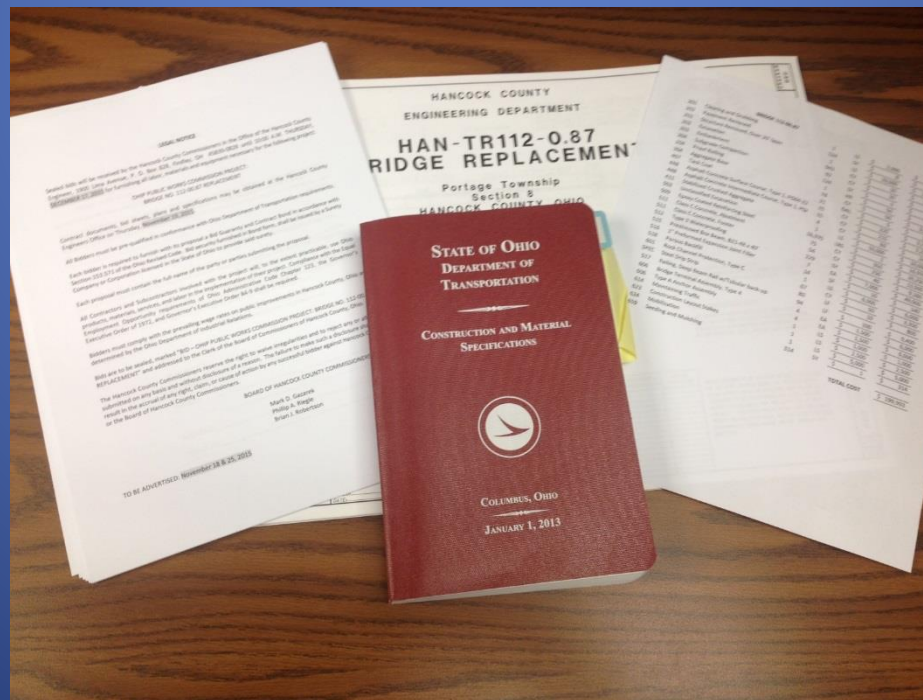
**Ok, now my project has to be bid as a contract, because I am over those numbers.**

- The County Engineer needs the same information as the Force Account
  - Where is the project?
  - Where is the beginning and end of the project
  - General Idea of what you think your road needs
  - When do you need the project completed

# Costing out a Road Project

## *Best practices for costing out a project*

- Next steps the County Engineer is going to do his thang and **booyaaaaa** ....
  - You will have Plans, Specifications and Estimate to bid your project.



# Costing out a Road Project

## *Best practices for costing out a project*

So how in the world did he come up with THAT number ... that's outrageous????

- Actual quantities from the detailed plans
- Historic Local Bid prices – From your County Engineer records
- Historic ODOT Bid prices –  
[http://www.dot.state.oh.us/Divisions/ConstructionMgt/Estimating/Pages/Bid\\_Histories.aspx](http://www.dot.state.oh.us/Divisions/ConstructionMgt/Estimating/Pages/Bid_Histories.aspx)
- AASHTO Software -  
<http://www.dot.state.oh.us/Divisions/ConstructionMgt/Estimating/Pages/Estimator.aspx>
- Bid Express and Appia and other Bidding Software
- Includes Prevailing Wage ..... What????? Why?????



# Costing out a Road Project

## *Best practices for costing out a project*

### Prevailing Wage .....

- **Federal Funds** in the project .....
- If over \$2000 must use Federal Wage Rates -  
<http://www.wdol.gov/dba.aspx#0>
- **State or Local Funds** in the project .....
- Must use Ohio Prevailing Wage Law - <http://com.ohio.gov/dico/>
- Department of Commerce Wage and Hour Website not as easy to navigate as it used to be.  
(Good Luck)
- Thresholds Change every year -  
[http://com.ohio.gov/documents/dico\\_prevailingwagethresholds.pdf](http://com.ohio.gov/documents/dico_prevailingwagethresholds.pdf)
- **Wage Rates change intermittently .... Federal does not change during project.**



## PREVAILING WAGE THRESHOLD LEVELS IMPORTANT NOTICE

Before advertising for bids, contracting, or undertaking construction with its own forces, to construct a public improvement, the Public Authority shall have the Ohio Department of Commerce-Division of Industrial Compliance, Bureau of Wage and Hour Administration determine the prevailing rates of wages for workers employed on the public improvement. The wage determination must be included in the project specifications and printed on the bidding blanks where work is done by contract.

<b>"New" construction threshold for <i>Building Construction</i>:</b>	<b>\$250,000</b>
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<b>"Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" threshold level for <i>Building Construction</i>:</b>	<b>\$75,000</b>
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### As of January 1, 2024:

<b>"New" construction that involves <i>roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction</i> threshold level has been adjusted to:</b>	<b>\$98,974</b>
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<b>"Reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting" that involves <i>roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction</i> threshold level has been adjusted to:</b>	<b>\$29,653</b>
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- A) Thresholds are to be adjusted biennially by the Director of the Ohio Department of Commerce.
- B) Biennial adjustments to threshold levels are made according to the Building Cost for Skilled Labor Index published by McGraw-Hill's Engineering News-Record, but may not increase or decrease more than 3% for any year.

If there are questions concerning this notification, please contact:

Bureau of Wage and Hour Administration  
6606 Tussing Road, PO Box 4009  
Reynoldsburg, Ohio 43068-9009  
Phone: 614-644-2239  
Fax: 614-728-8639  
[www.com.ohio.gov](http://www.com.ohio.gov)

# Questions?????

## Good Resources....

Ohio Revised Code

Ohio Township Handbook

Ohio Attorney General Opinions

Your County Prosecutor

Your County Engineer

## Bad Resources....

Another Engineer

County Engineer ... that is not yours

Another Lawyer

County Prosecutor ... that is not yours

