

**Subject:** CU-144-2.60-18 Pekin Road culvert replacement  
**From:** "Hajjar, Shane" <SHajjar@CO.GEAUGA.OH.US>  
**Date:** 3/21/2018 1:04 PM  
**To:** "cwalder@russelltownship.us" <cwalder@russelltownship.us>

Chuck,

Attached is the preliminary estimate for the Pekin Road culvert.  
We looked at this 2 ways.

First was to just remove and replace the culvert and restore some of the embankment issues near the culvert. This is estimated at \$75,000

We also looked upstream and there is a drivepipe at 8370 Pekin that 95% of the water flows through before getting to the culvert.

This pipe is in very poor condition and is causing significant erosion to the embankments.

Eventually, we will be back here to fix this and it could get a lot worse.  
The alternate estimate is \$160,000 to fix both the culvert and drivepipe.

This is preliminary and based on digital information and a very brief site visit.  
If other issues arise during our full field investigation, this could change.

If Russell Township would like us to proceed with this project location, please have the trustees execute the first resolution and return a copy to my attention.

Thank you,

[cid:image002.jpg@01D3C115.1E0144F0]Shane E. Hajjar, PE  
Deputy Engineer  
Geauga County Engineer's Office  
12665 Merritt Road | Chardon, Ohio 44024  
o. 440.279.1800 | f. 440.285.9864 | e.  
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— Attachments: —

winmail.dat

144 KB

**RESOLUTION OF CONVENIENCE & NECESSITY FOR  
THE IMPROVEMENT OF PEKIN ROAD, TR 144, SECTION C**  
**Russell Township, Geauga County, Ohio**

**WHEREAS**, the Russell Township Board of Trustees (Board) has determined that the public convenience and welfare require the improvement of Pekin Road (TR 144), in Russell Township, and to authorize the Geauga County Engineer to prepare engineering plans in accordance with Section 5573.01 of the Ohio Revised Code.

**NOW, THEREFORE, BE IT RESOLVED** by a unanimous vote of the Board that the public convenience and welfare requires these improvements by repairing the existing pavement and embankments, replacing culverts, improving drainage structures, subgrade stabilization, asphalt resurfacing, stabilizing the shoulders, and related improvements, as necessary.

**BE IT FURTHER RESOLVED** that the Geauga County Engineer is hereby directed to make such surveys, plans, profiles, cross sections, estimates and specifications as required for the improvement and to transmit copies of the same to this Board.

**BE IT FURTHER RESOLVED** that the costs and expenses of said improvement shall be apportioned as follows:

The right of way costs, if any and the construction costs for the project shall be paid from local funding sources and state grants and/or loan funds should they be available for this project. The engineering will be provided by the Geauga County Engineer at no cost to the Township.

**BE IT FURTHER RESOLVED** that the Fiscal Officer of the Board is hereby instructed to transmit a certified copy of this resolution to the Geauga County Engineer.

Voting thereon:

Vote:

\_\_\_\_\_  
Gary G. Gabram

\_\_\_\_\_  
Justin Madden

\_\_\_\_\_  
James Mueller

I, Charles Walder, Fiscal Officer of the Russell Township Board of Trustees, Geauga County, Ohio certify that the foregoing is a true and correct copy of a resolution adopted at a legally convened Board meeting held on April 2, 2018.

\_\_\_\_\_  
Charles Walder, Fiscal Officer

**Office of the Geauga County Engineer**  
**ESTIMATE OF COST**  
**Geauga County**  
**Pekin Road Culvert Replacement, 144-2.60**

HAE 3/21/2018

Scope of Work:

- Replace existing 48" CMP culvert with reinforced concrete pipe
- Rehabilitate channels and embankments

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit Price</i>	<i>Total Price</i>
103	Contract Performance Bond and Premium	1 LUMP	\$ 1,000.00	\$ 1,000.00
201	Clearing and Grubbing, As Per Plan	1 LUMP	\$ 1,000.00	\$ 1,000.00
202	Pipe Removed, Over 24", As Per Plan	80 FEET	\$ 50.00	\$ 4,000.00
202	Remove Cast-in Place Concrete Masonry, Headwall	2 EACH	\$ 1,000.00	\$ 2,000.00
202	Guardrail Removed	100 FEET	\$ 5.00	\$ 500.00
203	Borrow, As Per Plan	400 CY	\$ 25.00	\$ 10,000.00
203	Ditch Relocation	200 FEET	\$ 10.00	\$ 2,000.00
301	Asphalt Concrete Base, PG 64-22	10.0 CY	\$ 300.00	\$ 3,000.00
304	Aggregate Base, Limestone	10.0 CY	\$ 60.00	\$ 600.00
441	Asphalt Concrete Surface Course, Type 1, PG 64-22	2.5 CY	\$ 400.00	\$ 1,000.00
503	Cofferdams and Excavation Bracing	1 LUMP	\$ 1,000.00	\$ 1,000.00
601	Rock Channel Protection, Type B	20.0 CY	\$ 150.00	\$ 3,000.00
602	Concrete Masonry, As Per Plan	2.2 CY	\$ 1,500.00	\$ 3,300.00
611	48" Conduit, Type A, 706.02	96.0 FEET	\$ 300.00	\$ 28,800.00
614	Maintaining Traffic, As Per Plan	1 LUMP	\$ 5,000.00	\$ 4,200.00
624	Mobilization	1 LUMP	\$ 4,000.00	\$ 4,000.00
653	Topsoil Furnished and Placed	20 CY	\$ 50.00	\$ 1,000.00
659	Seeding and Mulching, Class 1, As Per Plan	500 SY	\$ 5.00	\$ 2,500.00
832	Perimeter Filter Fabric Fence	400 FEET	\$ 5.00	\$ 2,000.00
832	Straw and/or Hay Bales	10 Each	\$ 10.00	\$ 100.00
			<b>TOTAL</b>	<b>\$ 75,000.00</b>

**Office of the Geauga County Engineer**  
**ESTIMATE OF COST**  
**Gauga County**  
**Pekin Road Culvert Replacement, 144-2.60**

HAE 3/21/2018

Scope of Work: Alternate

- Replace existing 48" CMP culvert with reinforced concrete pipe
- Extend 48" HDPE pipe at inlet and outlet
- Replace and extend failing drivepipe at 8730 Pekin, fix failing embankment

<i>Item</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit Price</i>	<i>Total Price</i>
103	Contract Performance Bond and Premium	1 LUMP	\$ 1,500.00	\$ 1,500.00
201	Clearing and Grubbing, As Per Plan	1 LUMP	\$ 2,000.00	\$ 2,000.00
202	Pipe Removed, Over 24", As Per Plan	200 FEET	\$ 25.00	\$ 5,000.00
202	Remove Cast-in Place Concrete Masonry, Headwall	2 EACH	\$ 1,000.00	\$ 2,000.00
202	Guardrail Removed	100 FEET	\$ 5.00	\$ 500.00
203	Borrow, As Per Plan	750 CY	\$ 20.00	\$ 15,000.00
203	Ditch Relocation	200 FEET	\$ 10.00	\$ 2,000.00
301	Asphalt Concrete Base, PG 64-22	10.0 CY	\$ 300.00	\$ 3,000.00
304	Aggregate Base, Limestone	10.0 CY	\$ 60.00	\$ 600.00
441	Asphalt Concrete Surface Course, Type 1, PG 64-22	2.5 CY	\$ 400.00	\$ 1,000.00
503	Cofferdams and Excavation Bracing	1 LUMP	\$ 2,000.00	\$ 2,000.00
601	Rock Channel Protection, Type B	30.0 CY	\$ 150.00	\$ 4,500.00
602	Concrete Masonry, As Per Plan	4.4 CY	\$ 1,500.00	\$ 6,600.00
611	48" Conduit, Type A, 706.02	48.0 FEET	\$ 300.00	\$ 14,400.00
611	48" Conduit, Type D, 707.33	400.0 FEET	\$ 160.00	\$ 64,000.00
611	Manhole, No. 3, 6' diameter	4.0 EACH	\$ 3,500.00	\$ 14,000.00
614	Maintaining Traffic, As Per Plan	1 LUMP	\$ 5,000.00	\$ 4,200.00
624	Mobilization	1 LUMP	\$ 5,000.00	\$ 5,000.00
653	Topsoil Furnished and Placed	50 CY	\$ 50.00	\$ 2,500.00
659	Seeding and Mulching, Class 1, As Per Plan	1500 SY	\$ 5.00	\$ 7,500.00
832	Perimeter Filter Fabric Fence	500 FEET	\$ 5.00	\$ 2,500.00
832	Straw and/or Hay Bales	20 Each	\$ 10.00	\$ 200.00
<b>TOTAL</b>				<b>\$ 160,000.00</b>