

First Hearing Report
Webster-Arnold #355 Drainage Improvement Project
Drainage Petition per O.R.C. 6131
December 15, 2016

This report has been prepared for the preliminary hearing on a drainage improvement petition filed by Robert A. and Ruth E. Tackett and others on July 22, 2016.

The general location and course of the requested improvements is quoted from the petition as follows:

"In Delaware County, Liberty Township within The Webster-Arnold watershed and generally following, but not limited to the course and termini of the existing improvement."

The following is the nature of the work petitioned as quoted from the petition:

"To generally improve the drainage, both, surface and subsurface, to a good and sufficient outlet, by replacing, repairing or altering the existing improvements as required and/or creating new surface and subsurface drainage mains or laterals as requested, by this petition."

Petition Process

This petition has been submitted according to section 6131 of the Ohio Revised Code, which authorizes The Board of Commissioners to act on behalf of benefited property owners to make drainage improvements. If The Board of Commissioners decides to proceed with a project, the costs related to the improvements and the development of plans, report and schedules are assessed to the landowners in the watershed according to the benefit received to their watershed acreage. These special assessments will be added to the property taxes for each property and can be spread over a maximum of an 8-year period. Property owners may also choose to pay their assessment in a lump sum payment prior to placement on their property taxes. Additionally, the improvements will be placed on the Delaware County drainage maintenance program in perpetuity and the annual maintenance assessment will appear on property tax statements as a special assessment in the same manner as the construction assessments. These annual maintenance assessments are generally in the range of 2 - 3% of the construction assessment.

It should be noted that property owners are only assessed for those improvements that are located downstream from their properties. No property is assessed for improvements located "upstream". The agencies that hold rights of way for public roads would also be assessed for both construction and maintenance costs in the same manner as private property owners. In addition improvements within the right of way are typically direct assessed to the respective maintenance authority.

The decision to approve a petition project is a 3-step process. First, a viewing of the proposed improvement is conducted for the commissioners to familiarize themselves with the watershed and general conditions. The commissioners conducted the viewing for this project on October 3, 2016. Next, a preliminary hearing is held to consider the initial feasibility of the proposal. It is this preliminary hearing that is before us today. If this petition is approved, a final hearing will be conducted to further consider this petition. At that time, final details such as engineering plans and specifications and a proposed schedule of assessments will be known.

Existing Conditions

The Delaware Soil & Water Conservation District and Delaware County Engineer's Office have made the following observations using onsite evaluation and a review of available aerial photography, topographic mapping and soils mapping and drainage project archives.

The Webster-Arnold #355 drainage system was originally constructed in 1884, and was revisited in 1909. The drainage system does not appear to be functioning at or near optimum capacity due to a lack of comprehensive maintenance and the generally deteriorated condition of the infrastructure. The absence of uniform surface grading has resulted in areas of surface ponding. Sporadic "blowouts" along the course of the existing subsurface drain were also observed. These "blowouts" are a result of an aged and overburdened subsurface drainage system. The outlet for the tile main is obstructed. The surface ditch is covered by thick brush and vegetation, and evidence of siltation is present which has reduced the capacity of the channel. While the existing drainage system still provides some degree of drainage benefit, it does not appear to function as a good and sufficient outlet.

Construction Estimate

The proposed project has been divided into two distinct areas of work, Main and Lateral A. The Main would include the following basic elements: open channel restoration, surface drainage shaping and grading, seeding and mulching of disturbed areas, and subsurface drain installation. Lateral A would include the surface drainage shaping and grading, seeding and mulching of disturbed areas, and subsurface drain installation.

MAIN

Construction	\$ 59,010.00
Drainage Maintenance (ORC 6137) first year start up (5.0% of estimate)	\$ 2,950.50
Project Administration, Survey, and Engineering (15% of estimate)	\$ 8,851.50
TOTAL	\$ 70,812.00

LATERAL A

Construction	\$ 12,500.00
Drainage Maintenance (ORC 6137) first year start up (5.0% of estimate)	\$ 625.00
Project Administration, Survey, and Engineering (15% of estimate)	\$ 1,875.00
TOTAL	\$ 15,000.00

NOTES:

- **It is important to understand that the above estimates are preliminary and made in the absence of a current detailed topographic survey of the project area.**
- **Should the project fail to be approved at the final hearing, the benefiting land owners, as defined by ORC 6131 may still be responsible for the actual cost of project administration, survey and design.**

Assessments

If the project moves forward to the second hearing, the Ohio Revised Code instructs the County Engineer to calculate the assessments to individual property owners based on the benefits received from the improvements for the various properties in the watershed. The ORC further defines benefits as:

- "Elimination or reduction of damage from flooding."
- "Removal of water conditions that jeopardize public health, safety, or welfare."
- "Increased value of land resulting from the improvement."

The ORC defines benefitted land as follows:

"Lands that have been removed from their natural state by deforestation, cultivation, artificial drainage, urban development, or other manmade causes shall be considered as benefitted by an improvement required to dispose of the accelerated flow of water from the uplands."

Individual parcel assessments are not calculated for the preliminary hearing and are only calculated if the petition moves forward to a second and final hearing.

Factors Favorable/Unfavorable

Section 6131 of the Ohio Revised Code requires the County Engineer to state in a report, factors favorable and unfavorable to a proposed project, estimate the cost of the

project and state an opinion as to whether the benefits of the project exceed the cost. The following information is presented for your consideration:

Factors favorable to the improvement:

1. Improved surface and subsurface drainage in the watershed.
2. Probable increase in productivity on agricultural lands.
3. Improved outlet for subsurface drainage components of household sewage treatment systems and for residential drainage systems.
4. Annual inspection and maintenance of improvements in perpetuity will reduce future continued deterioration of the surface and subsurface drainage infrastructure.

Factors unfavorable to the improvement:

1. Removal of existing trees in improvement area.
2. Temporary land use disruption during construction.
3. Cost of construction and maintenance may be a burden to some landowners.

Benefits versus Cost

Assessments for property within the watershed are calculated based on the benefits derived. Based on a Soil and Water Study conducted by the Cooperative Extension Services of the Ohio State University in July of 1979 titled "Drainage—What is it Worth" stated that, typically, drainage improvements in agricultural areas are beneficial due to increased agricultural crop yields. The main premise of this study was that "Benefits = Increased Yield x Market Price." This benefit does not take into consideration other drainage benefits such as more timely tillage or harvesting.

The increased value or benefit for residential properties is much more subjective and difficult to quantify. For residential properties, the lack of an adequate drainage outlet can dramatically deteriorate the condition of household sewage treatment systems potentially limiting the value of the home for resale as well as costing thousands of dollars to repair or construct an alternate sewage treatment system should the existing system fail. It would also be reasonable to consider the cost of environmental degradation due to residential sewage treatment systems that may not be functioning properly. Other benefits that are commonly perceived as a result of drainage improvements focus on quality of life and positive neighborhood perception. Communities that have planned and maintained stormwater drainage infrastructures generally have higher resale values than those communities that are known to have a history of drainage problems or flooding.

Conclusions

Based on all of the information gathered and generated for this project, I believe this project is technically feasible and would adequately serve the project area's drainage

needs. However, the testimony brought to the Board by the landowners as to whether the benefits of this project exceed the costs, should be given consideration in the decision to move forward with this project.

Should the petition be approved to proceed to a final hearing, the petition bond will be returned and detailed plans, specifications, estimated cost and schedule of assessments will be prepared. Additionally, a more detailed benefit versus cost analysis will also be performed to further determine the feasibility of advancing the proposed project.

Prepared by,



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