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AN EMPLOYEE OWNED COMPANY

February 20, 2026

Medina County Dept. of Planning Services
144 North Broadway Street, Suite 113
Medina, OH 44256

Attention: Ms. Denise Testa, MA
Director

Reference: Geotechnical Peer Review
Highlands of Sharon Subdivision
CTL Project No. 26050002MORA

Dear Ms. Testa,

Pursuant to your request, CTL Engineering, Inc. (CTL) has completed the peer review of the Geotechnical Exploration Report prepared by Wertz Geotechnical Engineering, Inc. and dated September 24, 2025.

Information Provided to CTL

In addition to the previously mentioned Geotechnical Exploration Report, the following documents were provided to us by Medina County:

- Geotechnical Exploration Report prepared by Wertz Geotechnical Engineering, Inc. - report dated September 24, 2025
- Proposed Ryan Homes Development at Weatherstone of Wadsworth, prepared by Timmerman Geotechnical Group, Inc. – reports dated September 13, 1999, September 24, 1999 and October 7, 1999.
- High Street Development prepared by Summit Testing & Inspection Company – report dated July 31, 2023.
- Highlands RPP Staff Report & Highlands Addendum – prepared by Medina County - documents dated January 8, 2025.
- ODNR Mines of Ohio Exhibit – dated October 24, 2025
- Barberton Subsidence Risk Evaluation Project, prepared by Baker and Associates – report dated March 2003
- Subsurface Investigation of Underground Coal Mine Subsidence Areas, prepared by Messmore Testing & Supervision, Inc. – report dated May 5, 1982.

Project Description

The project site is located in Sharon Township, Medina County, Ohio. It is our understanding that the site is planned to be parceled into approximately 14 sublots for single family homes. Along with the single-family homes, the construction of public roads and supporting utilities are also planned for the site. The purpose of this peer review is to determine if additional geotechnical investigation is required to determine the potential for mine subsidence.

Summary of Salient Content

Geotechnical Exploration Report by Wertz

Based on the Wertz report, a total of eight (8) borings were drilled between August 26, 2025 and September 9, 2025 at the project site. The test boring locations were shown on Figure 1 of the Wertz report.

The borings were advanced by hollow stem augers through the soil and to the top of bedrock. Bedrock was cored in borings MP-2 and MP-3, and borings MP-4 through MP-9 were advanced into the bedrock using mud rotary methods and a roller bit. It should be noted that page 1 of boring MP-2 was not included in the provided geotechnical report prepared by Wertz Geotechnical Engineering, Inc.

Borings MP-2, MP-4, and MP-9 encountered a coal seam at depths ranging from 34 feet to 50 feet. The approximate elevation of the top of the coal seam ranges between 1191 and 1175 feet. The coal seam thickness was measured as approximately 2 to 4 feet. It is unclear from the report if this coal is the Sharon No. 1 seam which was mined near the site.

Borings MP-4 through MP-9 were advanced by mud rotary with a roller bit through the bedrock to probe for mine voids and potential coal seams. Therefore, no recovery or rock quality data is available for bedrock in these test borings.

Based on the lithologic descriptions provided in the boring logs, 6 inches of tool drop occurred in boring MP-6 at a depth of 46.0 feet (elevation 1182.0). This is the only potential void noted on the boring logs.

No groundwater levels were recorded during the drilling of the test borings.

The General Considerations section of the Wertz report stated “Based on our assessment, the likelihood of future mine subsidence in the area east of the test locations is very low, as it appears to be situated outside the boundaries of the mined region.”

Geophysical Survey – Highlands of Sharon report by GeoSearches, Inc.

A geophysical study was performed at the project site by GeoSearches, Inc. Results of the study are included as Attachment B in the Geotechnical Exploration report by Wertz. A complete copy of the

geophysical study was attached to the Highlands RPP Staff Report.
The object of the geophysical study was to "establish the possibility that the mine workings may exist beneath the property." The introduction section of the report states that two (2) non-intrusive geophysical methods were performed in the study.

It appears that a straight-line GPR survey was conducted using a high frequency (80 MHz – 250 MHz) antenna. Part One of the geophysical report states the depth of penetration ranged from 0 to 50 feet below the surface. Data processing included the use of filters and image quality tools to better define the anomalies present.

Figure 2 of the Results section of the geophysical report state that "Processed data plan view image of depths between 25 feet and 100 feet…" The Results section of the report goes on to state that "The data was collected within each section with 30 feet intervals between the lines to a depth of 100 feet."

The Data Results – Western Section of the geophysical report state that "The area of concern is located on the western side of this section Figure 2 where the returned velocities are consistent with the existence of subsurface voids suggesting that historical mine workings may exist beneath this segment of this western section."

Conclusions

Geotechnical Exploration Report by Wertz

Based on the test borings logs provided by Wertz Geotechnical Engineering, Inc., no voids were encountered during the subsurface investigation. Boring MP-6 recorded approximately 6 inches of tool drop at a depth of 46 feet (elevation 1182.0). The tool drop during drilling can indicate the presence of a void, but can also indicate fractures or joints within the bedrock. The elevation of the tool drop (1182.0) is between the range in elevation of the top of coal in borings MP-2, MP-4, and MP-9 (1191.0 to 1175.0).

The elevations of the top of coal, workings, or voids encountered at the adjacent Ryan Homes Development ranged from about 1160 to 1170, which is slightly lower than top of coal seams noted in the Wertz report. However, most of the borings in the Wertz report (except MP-2 and MP-3) were extended below elevation 1160. Therefore, it seems reasonable to assume that if mine workings were present at the site, the Wertz report would have revealed evidence of voids or subsidence.

Based on the proximity to the mine workings, borings MP-6, MP-7 and MP-9 would likely exhibit the highest potential for voids or evidence of mine related subsidence. As stated previously, boring MP-6 exhibited a 6-inch tool drop at a depth of 46 feet (elevation 1182.0). No evidence of voids or tool drop were noted on the logs for borings MP-7 and MP-9. Additionally, no coal layers were identified in borings MP-6 or MP-7. However, boring MP-9 exhibited a coal seam from depths of 36 feet to 40 feet (elevations 1187 to 1191).

Geophysical Survey – Highlands of Sharon report by GeoSearches, Inc.

The geophysical study performed by GeoSearchers, Inc. has several key concerns. Section 1 of the geophysical report states that the GPR penetration depths are up to 50 feet below the ground surface. Sections 2 and 3 of the report, which discuss the interpretation and results, reference penetration depths of up to 100 feet below the ground surface. It has been our experience that GPR antenna frequencies utilized in the investigation are not typically capable of penetrating to depths of 100 feet in the geologic conditions present at this site. The presence of saturated clay, sandstone, shale, and groundwater would make penetration depths of up to 100 feet very unlikely to nearly impossible even during the hot and dry conditions present when the survey was performed.

Data from ODNR indicates that the Sharon No. 1 seam has a base elevation between 1073 feet and 1060 feet at the project site. This would require the GPR signal to penetrate through more than 150 feet of overburden to reach the top of the coal elevation.

Additionally, the geophysical report indicates the presence of voids but provides no information on the location, depth, or extent of the voids.

The report states that two methods were utilized in the study, but only one method (GPR) is mentioned throughout the report. No mention of the second geophysical method was noted in the report.

Additional Conclusions from CTL

In the Highlands Addendum document, Mr. Tom Wiley (ODNR) provided minimum requirements for a drilling investigation in Item 3. Specifically, Item 3.d was to "determine correlation to geophysical survey". Item 3.h suggested a boring layout with a minimum of 9 borings situated in a grid pattern - 3 columns by 3 rows, with borings at the northwest and southwest corners (areas where the geophysical report shows potential undermining). According to Figure 1 of the Wertz report, none of the test borings were located near the northwest or southwest corners to correlate the findings from the Geophysical report. It should be noted that the Wertz report does not mention Mr. Wiley's comments, so it is not known if Mr. Wiley's comments were provided to Wertz personnel.

It should be noted that the use of mud rotary methods to advance Wertz borings MP-4 through MP-9 may have resulted in masking coal cuttings in the borings where no coal seams were encountered. Upon reviewing the data shown on the boring logs, performing rock coring in borings MP-4 through MP-9 may have provided better geotechnical data than mud rotary methods in the borings.

A review of the ODNR Mines of Ohio Exhibit, indicates that the reported mine workings are in the western portion of the property. Several of the Wertz borings were drilled along the eastern limits of the mine workings shown on the ODNR exhibit. Construction should not be performed within the limits of the mine workings shown on the ODNR exhibit. Additionally, provided construction is not performed within 100 feet of the eastern limits of the mine workings shown on the ODNR exhibit, then it is CTL's opinion that the mine workings would not be close enough to impact the site with any potential angle of draw for mine subsidence.

Based on the above information, CTL generally agrees with the conclusion in the Wertz report, that the portion of the site east of the Wertz borings has an extremely low probability of mine subsidence impacts.

At this time, CTL does not believe that any additional drilling at this site is required to evaluate potential mine subsidence east of the Wertz borings.

Closing

The evaluations, conclusions, and recommendations in this report are based on our interpretation of the field data obtained during the exploration, our understanding of the project and our experience with similar sites and subsurface conditions using generally accepted geotechnical engineering practices.

In the event that changes in the project are proposed, additional information becomes available, or if it is apparent that subsurface conditions are different from those provided in this report, CTL Engineering should be notified so that our recommendations can modified, if required.

The letter was prepared by CTL Engineering, Inc. (Consultant) solely for the use of the Client in accordance with an executed contract. The Client's use of or reliance on this report is limited by the terms and conditions of the contract and by the qualifications and limitations stated in the report.

The Consultant's services have been provided consistent with its professional standard of care. No other warranties are made, either expressed or implied.

We appreciate the opportunity to be of service to you on this project. If you have any questions or need further information, please contact us

Respectfully submitted

CTL Engineering of West Virginia, Inc.

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Project Engineer

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2/20/26