



Town of Clifton Park



ENVIRONMENTAL CONSERVATION COMMISSION  
*Protecting today's environment for the  
next generation...*

Town Supervisor:

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Stormwater Mgmt. Officer:

Scott Reese

Town Liaison:

Agatha Reid

Members:

Brian Glick

Dan Mathias

Karl Siverling

James Ruhl

Dave Alexander

Marla Zuarino

Jean Cottrell

Michael Christensen

## FINAL

MINUTES:

**Comments were addressed via e-mail – no physical meeting was held on June 3<sup>rd</sup>, 2024.**

Old Business –

**#2023-032 Ushers Knob Business Park**

SBL: 259.-2-70

Proposed the construction of a business park consisting of ten (10) 4,800 sf multi-use flex buildings, Ushers Rd Rear, Zoned: B1 - Business Non-Retail 1, Status: Revised Preliminary  
Applicant: 1743 Route 9 LLC, Consultant: EDP

**ECC Comments:**

- 1. See attached document “Clifton Park Environmental Conservation Commission Analysis Ushers Woods Geotechnical Report, June 6, 2024”**

**Scott Reese**

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**From:** dmath60@aol.com  
**Sent:** Friday, June 7, 2024 8:45 AM  
**To:** Brian Glick; Michael Christensen; Marla Zuarino; Jean Cottrell; Dave Alexander; Karl Siverling; Jim Ruhl  
**Cc:** Scott Reese; Anne Dillenbeck  
**Subject:** ECC Analysis - Gifford Engineering Geotechnical Report  
**Attachments:** ECC Analysis USHERS WOODS GEOTECH REPORT v3.docx

Scott,

Attached are the comments developed by Jim Ruhl, Dave Alexander, and me regarding the Gifford Engineering Geotechnical Report on the Ushers Knob Project. Jean Cottrell's comments have also been integrated into the ECC analysis.

ECC members - please feel free to send any comments or concerns with this analysis to our group and Scott as soon as possible. I would like to ensure we can send this to the Planning Board with a majority of our group in support.

Thanks.

Dan

# Clifton Park Environmental Conservation Commission Analysis

## Ushers Woods Geotechnical Report

June 6, 2024

Per Town of Clifton Park Code Section 13-5.C. (Powers and Duties of the Environmental Conservation Commission), the ECC is empowered to participate in the design, implementation and review of studies, surveys and inventories of environmental features within the Town of Clifton Park. At the request of the Town of Clifton Park Planning Board, the Environmental Conservation Commission (ECC) reviewed the Geotechnical Engineering Report on the Ushers Road Commercial Park prepared by Gifford Engineering. Our comments are organized in three sections: General Observations, Concerns, and Recommendations.

### General Observations

The data quality is surprisingly limited for a site of this size. The following are examples of this comment:

- 1) Page 17 - Boring B3 - The report indicates that the boring was NOT installed due to flowing water and steep slopes.. The boring should have been moved so that data could have been obtained
- 2) Page 19 – Boring B5 – This also IS NOT sampled due to standing water and steep slope. The boring should have been relocated so that data could have been obtained at a nearby location. The fact that two borings were not taken due to steep slopes is indicative that the terrain is difficult and problematic. Because Borings B3 and B5 are both off the property and have no data, the analysis therefore is not possible for those locations and therefore, the report provides no off-site test results (i.e., there is no information about soil conditions off the building site).
- 3) Pages 21 and 22 – Eight of the ten test pits had their sidewalls slough due to soil conditions indicating that instability is common across this site
- 4) No borings were actually extended to ground water. The ground water estimates were derived from the presence of surface water (not actual groundwater samples). The greater the saturation of the soil the higher the instability of the soil.
- 5) Page 24 - Of the three borings for which infiltration tests were performed on, one of the three borings was a failure. The borehole (IT2) emptied at rate of 17,280 inches

per hour. This means that infiltration tests and conclusions are based on only two samples (i.e., boreholes).

- 6) The cross-sections may be less than adequate since no cross-sections span the entire site. The plane of conditions is limited to the west side and northwest corner. Why are there no cross-sections that span the entire site?
- 7) All of the "blow count" data (an indicator of soil density) is in the range of below 10 to 14. This indicates that the soil at the surface from 20 to 30 feet depth is very loose to slightly dense.
- 8) The lower range of the calculated safety factors of 1.35 is barely above the instability level of 1.0. Given the paucity of the data for this project, we would be concerned if additional data would reveal lower safety factor levels thus indicating the site is broadly unstable.

### Concerns

- 1) Off-site data from the ravine was not obtained as neither B3 nor B5 borings were emplaced due to flowing/standing water and slope. These borings were to be placed at elevations in standing/flowing water in the 240-225 ft. elevation range. These are substantially lower than the other borings in the 280s-290s ft. elevation range. Clearly, with no data from B3 and B5, one can at the very best just guess at stability and water conditions at what is effectively the base of the slopes to the project area. Given the standing/flowing water, we can reasonably safely infer that stability for this soil would be close to the Factor of Safety lower limits likely signifying instability. No data was collected at similar elevations from any other boring or test pit.
- 2) Depth to groundwater should have been determined given how significantly water reduces slope stability (Page 5 – "An extended period of a high water level within these ponds will decrease the slope stability and could result in failure."). It would have been very easy to extend one or more borings to the groundwater surface so that the engineer would have gathered hard data rather than inferring water table depths from the surface water bodies. Since a singularly important aspect of engineering for this project is the stability of slopes and soils at this site, knowing the true depth to groundwater would allow for much higher confidence in the engineering decisions that must be made to safely build and maintain these buildings.
- 3) Water infiltration rates were only measured at 3 locations. 1 datum is invalid so only 2 data points are available to draw conclusions about this most important

engineering element. The presence of water increases instability as noted by the geotechnical engineer.

- 4) The revised site drawings do not appear to commit the developer to employ a qualified geotechnical engineer to oversee construction nor to perform the subsequent inspections. While some items from the geotechnical report are incorporated in the new site drawings it would be logical to make similar commitments as suggested by the geotechnical engineer as so much of the safety of the site is dependent upon geotechnical decisions made in design and during construction.
- 5) While not within the purview of the geotechnical engineer's report, the fact that no environmental analysis is available that addresses the impacts to flora and fauna by the significant alterations that will be made to the groundwater table, surface water flow patterns, and perhaps to water quality impacts from the project's construction and operation is a concern from a SEQRA approval standpoint.

### **Recommendations**

- 1) The Planning Board should require the applicant to retain an environmental engineer, as recommended by the geotechnical engineer (page 3), to assess the environmental impacts of this project.
- 2) Based upon the analysis of the environmental engineer, the Planning Board should determine whether a positive declaration is necessary under SEQRA.
- 3) Due to the site characteristics and the Gifford Geotechnical Report, no site preparations or construction should be commenced without the consultation and supervision of a qualified geotechnical engineer (pages 7, 8, 9, and 10). (For example, "A Quality Assurance, Quality Control, and Special Inspection program should be developed and overseen by the geotechnical engineer of record. Conductance of this quality assurance program is required for proper execution and confirmation that the recommendations contained in this report are followed." See Page 7 bottom.)
- 4) The Geotechnical Report indicates that a quality control program for the detention ponds is mandatory to avoid slope instability and pond failure. (Page 5. - "An extended period of a high water level within these ponds will decrease the slope stability and could result in failure.") This recommendation must be incorporated into any project approval.
- 5) The report states on Page 6: "The banks of the streams at the bottom of the slopes should be inspected regularly by a qualified engineer, at least once in the late spring

of every year. If the stream bed meanders and starts eroding the toe of slope, it may cause instability. A qualified geotechnical engineer should be contacted to provide recommendations to remedy the situation." This is a significant risk factor to the site. The report mentions an unknown impact on the intermittent stream and wetland at the base of the project. This environmental "unknown" should be investigated especially given its downstream flows into Round Lake. In addition, the Planning Board should require these regular reviews of the possible stream impact by the project as a condition of approval.

- 6) Building 1 requires a deeper foundation to prevent issues with slope stability due to its location. A better solution would be to eliminate this building from the plan in order to avoid any future unplanned catastrophes.
- 7) The Geotechnical study recommends changing the current soils with a "controlled fill" that is mixed and imported into the site (Page 6). This requirement has significant and perhaps unknown environmental impact. Reducing the density and location of the buildings in the plan may not require such drastic soil disturbances.
- 8) The Geotechnical study recommends that the developer or his subcontractors conduct multiple, periodic inspections by qualified geotechnical engineers. Posting an "inspection bond" to pay for any negligent inspections would help assure these inspections are conducted as recommended.
- 9) On the Safe Slope Setback Line Map, it is noted that there is no Safe Slope Setback line shown in the northeast corner where the stormwater management areas are proposed. The geotechnical engineer should confirm that this area is safe for the placement of these detention areas, especially in light of the failure risks outlined in the report.
- 10) Due to the site's difficult and complex characteristics, a Public Hearing should be held before the Planning Board makes any final decisions on this proposal.