



LAKE • GEORGE
WATERKEEPER®

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July 26, 2010

Mr. Howard Dennison, Chairman
Town of Fort Ann Planning Board
80 George Street
Fort Ann, NY 12827

Re: The Enclave at Lake George, LLC
1215 Pilot Knob Road

Dear Mr. Dennison:

The above referenced site plan was personally reviewed in my capacity as a licensed professional engineer and the Lake George Waterkeeper. In general, the Lake George Waterkeeper feels the extent of the proposed disturbance, clearing and impervious coverage is excessive and will have negative impacts to Irish Bay and Lake George. Additionally, the Waterkeeper recommends implementing Low Impact Development measures to create a development that works more with the site's natural resources to reduce negative impacts. Our review focused on the general concept and reserves technical comments for a later time. The Lake George Waterkeeper offers the following comments regarding the proposed development:

The project should be redesigned to implement Low Impact Development measures.

Low Impact Development is a method of development that reduces the level of disturbance and works more closely with the natural features of a site to minimize negative impacts. The design as proposed fails to accomplish this on numerous levels:

- Preserve and conserve natural resources: Extensive development and roads are proposed on steep slopes which will make it difficult to mitigate negative impacts from grading and soil destabilization. Buffer along wetlands should be protected to prevent impacts to the natural filtration process provided and for wildlife habitat.
- Minimize changes to landscape: All disturbances from clearing, grading and other development activities changes the natural drainage patterns and increases stormwater runoff. This project proposes large areas of clearing and earthwork requiring significant disturbance to mitigate the increased runoff. The concept plan should be reevaluated to reduce the overall disturbance.



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- Stormwater controls closer to source: Stormwater should be controlled and treated closer to the source. This reduces the increased disturbance necessary to mitigate the runoff and reduces project cost. The project proposes gutters and piping for stormwater collection and conveyance to large stormwater basins down the hill from the development. Stormwater should be controlled closer to the source through infiltration measures such as rain gardens near units. Additionally, stormwater should be conveyed on natural drainage channels that will further reduce stormwater volumes.
- Reduce impervious coverage: Impervious cover should be minimized to reduce increased stormwater runoff. The project proposes significant impervious cover in roads and driveways. Driveway widths for Units 1-9 are 24 feet wide. Lot 10 has a 450 foot long, 16 foot wide driveway, which is excessive.
- Dwelling should be built to the land: Dwellings should be built with the landscape, and not the land altered to accommodate the dwellings. The project proposes dwellings that are dimensionally uniform on all sides and will require more construction into the mountainside, resulting in additional clearing, disturbance and earthwork. The dwellings should be designed with a long side parallel to the land contours, requiring less construction into the hillside.

The stormwater management basins will require variances for setbacks to wetlands.

The stormwater basins will be constructed within 100 feet of wetlands, which will require variances from the Lake George Park Commission. It would seem there are alternative to prevent the need for a variance and we do not see a viable hardship to support a variance.

The proposed wet ponds do not provide adequate treatment during cold climate conditions.

Stormwater ponds installed in the Lake George watershed have been monitored over the past three winters. These ponds develop ice, which reduces the level of treatment and management. In some applications, the ice accumulates and builds up to the primary spillway elevation, eliminating all storage volume. The potential for ice accumulation will only increase on ponds proposed on a mountainside with greater exposure to cold weather. As rain events become more prevalent during winter conditions, the potential for high storm volumes increases along with corresponding negative water quality impacts.

Soil investigations required for stormwater basins.

Some soil investigations in the vicinity of the stormwater basins indicate seasonal high groundwater at depths that would appear to be less than the required separation.

Stormwater from disturbed areas is directed off site untreated.

The increased runoff from the significant amount of side slopes created by the excessive earthwork required for the roads and driveways is collected and directed off site without any stormwater management or treatment. This increased runoff needs to be addressed.

The community wastewater treatment system is proposed on excessive slopes.

The wastewater treatment system for the upland units appears to be a fill system and is located on slopes of 20%. This exceeds the allowable slopes for fill systems.

Each of the building sites should be determined to be constructible.

It appears some of the well locations behind the upland units may not be realistic and should be reevaluated.

In conclusion, this development plan has too much disturbance and does not balance the protection of the natural resources that are important for the water quality protection of Lake George. This is supported by a public statement by the applicant on the previous proposal for the property when he stated he was a businessman and did not “look out for stormwater.” The Lake George Waterkeeper makes the following recommendations to the Town of Fort Ann Planning Board: 1) Require a natural resources assessment plan to delineate and protect steep slopes and buffer areas; 2) Disturbance and clearing should be reduced on steep slopes which removes the important natural features (mature vegetation and soils) important for water quality protection; 3) Stormwater management and treatment must be done at the source and not through an end-of-the-pipe solution; 4) Stormwater should be conveyed through the site in open channels and not pipes; 5) Impervious coverage of roads and driveways should be reduced through shortening and decreasing the width; 6) Redesign the dwelling to fit better with the landscape or use townhouses to reduce disturbance; 7) Stormwater management for a development this size should not require any variances; 8) Additional soil investigations should be provided to determine the adequacy of proposed stormwater management facilities; 9) All stormwater generated on the site should be managed and treated on site; 10) Locate wastewater treatment facilities in compliant locations; and 11) Verify the location of proposed wells for construction.

The Lake George Waterkeeper looks forward to working with the Town of Fort Ann Planning Board to defend the natural resources of Lake George and its watershed. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Chris Navitsky". The signature is written in a cursive, flowing style.

Christopher Navitsky, P.E.
Lake George Waterkeeper

cc: Town of Fort Ann Planning Board
Tom Jarrett, PE - Jarrett Engineering
Tom Seahrig - Adirondack Park Agency
Michael White - Lake George Park Commission