



REPORT FOR EXECUTIVE COMMITTEE

RE: PERMIT APPLICATION NO: 086/16

The above reference property has been reviewed with regard to Ontario Regulation 159/06 the Development, Interference with Wetlands & Alterations to Shorelines & Watercourses Regulation of the CVCA.

Executive Summary

An application to develop lands along Belmont Lake is recommended by staff to be **denied**. The development proposed is as follows: the demolition of an existing dwelling and the construction of a new dwelling on an expanded footprint, a replacement septic system and a replacement garage. The application does not meet our policies for development in a flood hazard. The new dwelling is over the size limit allowed for development in the flood hazard and the driveway does not meet the minimum standards for safe access and egress.

Background and Subject Lands

On June 24, 2016 an application for development was received by the CVCA office. The land owner is Gregory Clements. The application is for the demolition of a 40' by 45' dwelling and the construction of a new 44' by 49' dwelling (with attached garage and loft space) on an expanded footprint. Both the current and the proposed dwelling will be 45' from the shoreline at the closest point on the deck, and 55' to the dwelling. The new dwelling will be constructed on a poured cement foundation with a 4' crawl space. The new dwelling will have a loft space, an attached garage and an open 10' by 49' deck on the water side. The existing dwelling has an original ground floor area of 1800ft² while the new dwelling is proposed to have a total habitable area of 2856ft², including the attached garage and loft. A new septic system will be installed to replace the existing system in the same location. A 4500L tank will be installed along with a raised 36m² filter bed. A 24' by 24' garage will also be constructed in the same location as an existing garage of the same size.

The application was accompanied by a survey that combined the original survey (without elevations) of the Clements property with an elevation survey of the property to the north. Extrapolating from the property to the north the elevation of the Clements property appeared to be within the flood hazard of Belmont Lake. CVCA staff requested an elevation survey for the applicants' property which was subsequently completed by Elliott and Parr Ltd. on July 16, 2016 and submitted to the CVCA. The survey confirmed that the entire property is within the flood hazard of Belmont Lake.

The subject lands are located at 364 Mile of Memories Road along Belmont Lake. The property is surrounded by cottages to the north and south. The lot is approximately 0.3 acres and has frontage along Belmont Lake on the western side of the property and Mile of Memories Road to the east.

CVCA Staff Recommendation

Based on the information submitted, the CVCA staff recommends that the application be **denied** for the following reasons:

Our policies will permit residential development, additions or expansions under specific conditions. In this application however the expansion does not conform to the policies for size requirements of an addition and safe access is not established across the driveway.

The maximum size the current dwelling could be expanded from its original footprint¹ is 500ft² bringing the total habitable space to 2300ft². The proposed dwelling, including the garage, is 2856ft² which is over the allowable size by 556ft². For the purposes of our policies an attached garage is considered habitable space and is included in the overall calculations.

Access to and from homes, cottages, commercial establishment, or other structures are one important factor that must be considered as flooding can impair access for occupants, police, fire fighters or ambulance personnel in an emergency situation. Therefore the Authority will review accessibility for pedestrians and vehicles with regard for specific water depths and velocities. Safe access for vehicles cannot be a depth that exceeds 0.3m. On this property safe access for vehicles is achieved at an elevation at 188.5mas or higher (the flood elevation of 188.8 minus 0.3). While the entire driveway is only slightly below this standard it does not conform to our policies.

The subject site is located in a regulated area as described in Ontario Regulation 159/06. The proposed development of a dwelling of the proposed size will not be permitted in accordance with Section 2. (1) (b) which states:

*Section 2. (1) Subject to section 3, no person shall undertake development, or permit another person to undertake development in or on the areas within the jurisdiction of the Authority that are,
(b) hazardous lands;*

The Crowe Valley Conservation Authority Watershed Regulations Policy Manual *hazardous lands* as “land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock.” In this case, processes associated with flooding are our concern.

The manual is intended to provide CVCA staff with policies for the purpose of administering our Regulation (159/06). When reviewing development applications, the Authority must have regard for its objectives of preventing loss of life and minimizing property damage.

The individual policies that apply to this decision are listed below and are specific to Administrative Policies and Policies for Flooding Hazards. Sections that are not relevant to this application have been removed.

Administrative Policies

The following sections speak to over-arching policies that every application must be tested against. The One Zone concept explains that the entire CVCA watershed is within a single zone where all applications adhere to the same policies. In other Conservation Authorities that have a two zone concept there are different policies depending on what zone development is proposed within. Ingress and egress is a critical condition that must be considered when reviewing applications for development. If safe access is not present or cannot be achieved the permit

¹ An addition or redevelopment with an expanded footprint must be 50% or less of the original habitable floor space to a maximum of 500ft², whichever is less.

cannot be approved. Areas subject to the regulation include several different items with hazardous lands being a critical component. Hazardous lands include all lands that are or could be flooded.

3.2 One Zone Concept

Under the one zone approach, construction activities are restricted within the Regulatory Flood Plain. Permitted development may include reconstruction or minor additions to existing structures as well as extension to existing agricultural operations. Other uses, such as open space, that is not likely to create damage to other properties from floodwater, or cause a threat to public safety, or are not of a polluting nature may be permitted within the flood plain. Examples of uses or structures that would create adverse impacts in the flood plains of our riverine systems include, but are not limited to, new buildings, swimming pools, filling activities, septic tile fields and tanks, as well as manure storage and handling facilities.

The One Zone Concept of floodplain management is applied throughout the entire Crowe Valley Conservation jurisdiction.

3.3 Ingress/Egress

When reviewing development applications, the Authority must have regard for its objectives of preventing loss of life and minimizing property damage.

Access to and from homes, cottages, commercial establishment, or other structures are one important factor that must be considered as flooding can impair access for occupants, police, fire fighters or ambulance personnel in an emergency situation. Therefore the Authority will review accessibility for pedestrians and vehicles with regard for specific water depths and velocities. New lots proposed to be created by way of consent or plan of subdivision that will have access that crosses a flood susceptible area, must have road access that is safe. Safe access is defined as conforming to the depth and velocity criteria for pedestrians and vehicles in the following table.

Table 1: Depth and Velocity Criteria

| <u>Acceptable Vehicle Depths</u> | <u>Acceptable Pedestrian Depths</u> | <u>Acceptable Velocities</u> |
|----------------------------------|-------------------------------------|------------------------------|
| 0.1m | 0.1m | 1.7 m/s (max allowable) |
| 0.2m | 0.2m | 1.7 m/s |
| 0.3m (max. allowable) | 0.3m | 1.3 m/s |
| | 0.4m | 1.0 m/s |
| | 0.5m | 0.8 m/s |
| | 0.6m | 0.7 m/s |
| | 0.7m | 0.6 m/s |
| | 0.8m (max. allowable) | 0.5 m/s |

Source: Provincial Flood Plain Planning Policy Statement (1988)

- depth for vehicle access may not exceed 0.3 metres
- depth for pedestrian access may not exceed 0.8 metres
- velocities may not exceed 1.7 metres per second

On this property safe access for vehicles is achieved at an elevation at 188.5mas or higher (the flood elevation of 188.8 minus 0.3). According to the elevation survey there is no safe access from the road to the proposed dwelling. The level of water on the driveway during a flood situation is between 0.06m and 0.18m higher than what is permitted.

3.4 Areas Subject to the Regulation

Ontario Regulation 159/06 sets out areas where development is prohibited as well as setbacks from various ecological features. The features that are encompassed by the regulation are as follows: (irrelevant sections have been removed)

Hazardous Lands

This component of the Regulation applies to development within hazardous lands which is defined under Section 28 of the CA Act as land that could be unsafe for development due to naturally occurring processes associated with flooding, erosion, dynamic beaches, or unstable soil or bedrock. Unstable soil and bedrock include, but is not limited to sensitive marine clays, organic soils, and karst topography. Sensitive marine clays are not identified within the watershed. Organic soils are normally formed by the decomposition of vegetative and other organic materials. Peat soils are the most common type of organic soil in Ontario. Karst topography may be present in limestone or dolomite bedrock and are extremely variable in nature.

Hazardous Lands Policies

The following policies are specific to development in the flood hazard. Any development within a flooding hazard requires permission from the CVCA. In general development within the Regulatory floodplain shall not be permitted except in accordance with the policies contained below. Policies that do not apply to this case have not been included.

The following policies apply to the development proposed:

New Residential Development

- 6.1.1.1** New multiple residential development will not be permitted within a flooding hazard, regardless of previous approvals provided under the Planning Act or other regulatory process (e.g., Building Code Act).
- 6.1.1.2** New single residential development on an existing lot will not be permitted within a flooding hazard regardless of previous approvals provided under the Planning Act or other regulatory process (e.g., Building Code Act).

Minor Residential Additions

- 6.1.1.3** Additions (including ground floor, second storey or an attached garage) to existing residential dwellings located within a flooding hazard will be permitted provided it can be demonstrated that:

- there is no feasible alternative site outside of the flooding hazard;
- the addition is 50% or less of the original habitable floor space* to a maximum footprint of 46.5 square metres (~500 square feet), whichever is less, or in the case of multiple additions, all additions combined are equal to or less than 50% of the original habitable floor space to a maximum footprint of 46.5 square metres (~500 square feet), whichever is less;
- the number of dwelling units is the same or fewer;
- the addition will not be subject to flows that could cause structural damage;
- where feasible, an improvement in the existing dwelling will occur with respect to floodproofing of the structure;
- safe access (ingress/egress) is present;
- the addition will be floodproofed to an elevation of 0.3 metre above the regulatory flood elevation as per floodproofing standards outlined in Appendix C – Floodproofing Guidelines;
- the structure is properly anchored to prevent flotation, is not subject to damage by flooding or other hazards and flood flows and flood water storage are not impeded; and,
- no basement is proposed and any crawl space is designed to facilitate service only.

A site plan prepared by qualified professional illustrating the elevations of existing and proposed grades and lowest openings of existing and proposed buildings/structures must be submitted. In addition, detailed technical analysis completed by a qualified professional engineer may be required to be submitted to demonstrate the acceptability of the proposal.

6.1.1.4 Additions to existing residential dwellings greater than the size provision identified in 6.1.1.3 above would be considered Single Residential Development and therefore subject to Policy 6.1.1.2.

*Original habitable floor space means the floor space that was part of the original structure when it was first constructed. Subsequent requests for additions which will result in the cumulative exceedance of 50% of the original floor space or 46.5 square metres (~500 square feet) will not be considered.

Residential Replacement

6.1.1.6 Replacement of residential dwellings located within a flooding hazard that have been damaged or destroyed by causes other than flooding will be permitted provided it can be demonstrated that:

- the dwelling to be replaced is relocated outside the flooding hazard where feasible;
- there is no increase in the number of dwelling units;
- the new dwelling is the same size or smaller than the previous dwelling;
- the use of the new dwelling is the same as the previous dwelling;
- the dwelling will be floodproofed to an elevation of 0.3 metre above the regulatory flood elevation, as per floodproofing standards identified in Appendix C – Floodproofing Guidelines;
- safe access (ingress/egress) is present;
- no basement is proposed and any crawl space is designed to facilitate service only; and,
- there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

A site plan prepared by a qualified professional illustrating the elevations of existing and proposed grades and lowest openings of existing and proposed buildings/structures must be submitted.

6.1.1.7 Replacement of residential dwellings within a flooding hazard that would result in an increase in dwelling size will be permitted provided it can be demonstrated that the conditions for Minor Residential Additions (Policies 6.1.1.3, 6.1.1.4) can be satisfied, and safe access is present.

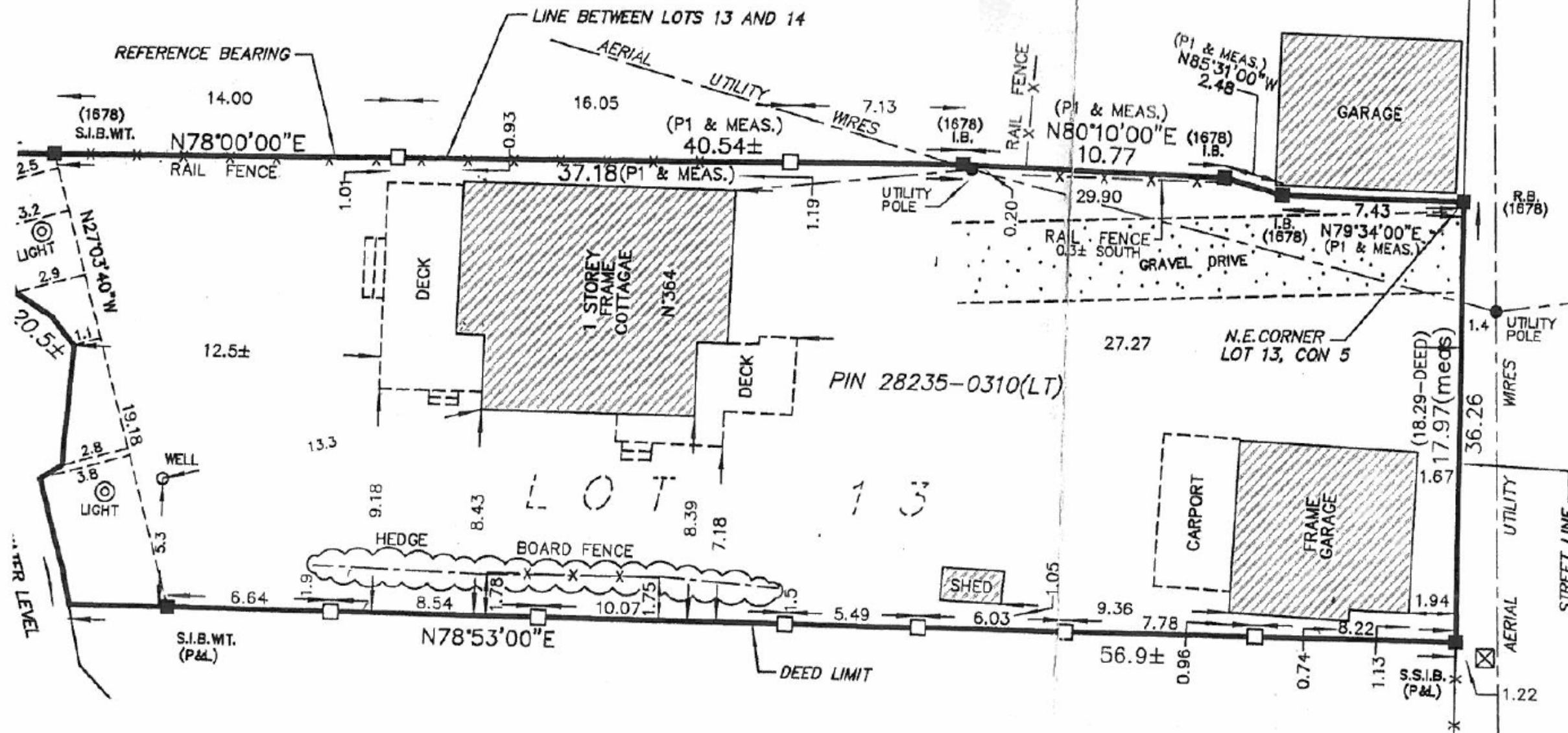
For this application the policies on Residential Replacement apply followed by the policy on Minor Residential Additions as the proposed replacement building has an increase in size. The building proposed is over the size restrictions by 556ft², including the loft space and the attached garage. The attached garage is approximately 372ft² which if removed would still leave the structure 184ft² too large.

Summary

CVCA staff recommend that the application for the development of a dwelling, septic system replacement and garage be denied as it does not meet our current policies and the safety of the landowners cannot be guaranteed. The development is entirely within the floodplain of Crowe Lake and the size of the dwelling exceeds our policy standards. Additionally, should Belmont Lake flood the property is below the acceptable flood depths for ingress and egress. Staff do not have concerns with the proposed garage or the septic system replacement provided they meet the relevant policies. At this time our concerns are with the size of the dwelling and the issue of safe access and egress. The Conservation Authority should not be allowing development in areas that we regulate specifically to minimize hazards to life and property that do not meet our Board approved policies and as such placing a dwelling of this size in the floodplain along with the absence of safe access should not be approved.

Figures Enclosed: Elevation Survey by Elliott and Parr (zoomed in for clarity)
Site sketch - current development (zoomed in for clarity)
Site sketch - with current and proposed (zoomed in for clarity)

Current Site Plan



Current Dwelling (black outline) and Proposed Dwelling (orange outline)

