Public Council Agenda
re: Amendments to Official Plan and Zoning By-law
January 13, 2023 - 9:00 a.m.
Municipal Office - Council Chambers
6648 Road 506, Plevna
Zoom Meeting Registration

Page

1. Call to Order and Purpose of Meeting

2. Chair's Opening Remarks

3. Approval of Agenda

a) January 13, 2023

Be It Resolved That Council approves the Agenda for the Public Meeting dated January 13, 2023 regarding amendments to the Township's Official Plan and Zoning By-law, as circulated.

4. Disclosure of Pecuniary Interest and General Nature Thereof

5. Official Plan Amendment and Zoning By-law Amendment

3 - 117 a) Official Plan Amendment #OP02/22 & Zoning By-law Amendment Z08/22 - Ompah Palmerston Cottage Co-Operative (1099A Lafolia Lane)

Be It Resolved That Council receives for information the County Planner's report regarding Official Plan Amendment Application #OP01/22 and Zoning By-law Amendment Application #Z08/22; and the comments from the public regarding the proposed development;
And That County Planning Staff will review the comments received and provide a detailed analysis and recommendation in a final report to Council at a future meeting date.

i. Public Comments and Questions

118 - 132 b) Official Plan Amendment #OP01/22 - Proposed Administrative Amendments to Implement Bills 13 and 109.

Be It Resolved That Council receives for information the County Planner's report entitled " Official Plan Amendment Number 1 to the Township of North Frontenac Official Plan – Proposed Administrative Amendments to Implement Bills 13 and 109";

And That Council will consider a By-law later in the meeting to adopt the proposed Official Plan Amendment Number 1 to implement Provincial Bills 13 and 109;

And That Council instructs the Clerk/Planning Manager to prepare and send the Official Plan Amendment package to the County of Frontenac for approval.

i. Public Comments and Questions

6. Adjournment

a) Adjournment of Meeting

Be It Resolved That Council adjourns the Public Meeting at _____ .m

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Planning Report

To: Mayor and Members of Council

Prepared By: Jennie Kapusta, Community Planner, County of Frontenac

Reviewed By: Sonya Bolton, Manager of Community Planning, County of Frontenac

Re: Application for Official Plan Amendment to Redesignate the Subject Property from Rural Area to Rural Cooperative Area (Map Change – Ompah Palmerston Cottages Rural Cooperative)

Application for Zoning By-Law Amendment to Rezone the Subject Property from Limited Service Waterfront (LSW) and Limited Service Rural (LSR) to a site-specific Rural Co-operative Exception Zone (CO-X1)

Address: **1099 A & B Lafolia Lane**

Legal Description: Part Lot 30, Concession 4, Part Parcel A, Palmerston Lake, Geographic Township of Palmerston

File Number: **OP02/22 (Lafolia Lane)**
Z08/22 (Lafolia Lane)

Recommendation: Receive comments from the public

Date Prepared: January 5, 2023
Date of Public Meeting: January 13, 2023

Recommendation

Under the Planning Act, a public meeting is required to be held to receive comments from citizens on the proposed Official Plan Amendment and Zoning By-Law Amendment. Planning staff recommend Council receive public comments for consideration about the proposed amendments. Staff will review the comments received and provide a detailed analysis and recommendation in a final report to Council at a future meeting date.

Proposal

An application for an Official Plan Amendment has been submitted to redesignate a property described as Part Lot 30, Concession 4, Part Parcel A, Palmerston Lake, Geographic

Township of Palmerston (1099A & 1099B Lafolia Lane) from Rural Area to Rural Cooperative Area. This is a map change to facilitate the redesignation of the subject property and the establishment of a rural cooperative known as Ompah Palmerston Cottages Rural Cooperative.

An application for a Zoning By-Law Amendment has been submitted to rezone the same property from Limited Service Waterfront (LSW) and Limited Service Rural (LSR) to a site-specific Rural Co-operative Exception Zone (CO-X1).

These applications have been submitted to permit the establishment of a family based rural cooperative known as Ompah Palmerston Cottages Rural Cooperative.

Background

Information Category	Response
Official Plan Designation	Rural Area
Zoning	Limited Service Waterfront (LSW) and Limited Service Rural (LSR)
Current size (area) of subject property	14.38 hectares (35.52 acres)
Existing road frontage and access	Accessed by Lafolia Lane
Waterfrontage	1,208 metres (3,963 feet)
Natural heritage features	Coniferous and deciduous woodlands, wetlands, shorelines and open water, and abutting Palmerston Lake
Surrounding land uses	Developed waterfront residential lots along the shoreline of Palmerston Lake, large naturally vegetated rural parcels inland, with some Crown Land along the north shore of Palmerston Lake

The subject property, municipally known as 1099A and 1099B Lafolia Lane is a peninsula that extends into Palmerston Lake, located at the northeast corner of the Hamlet of Ompah. This property is accessed via Lafolia Lane, a private road.

The property owners retained ZanderPlan to assist them with both the official plan amendment and zoning by-law amendment applications, and ZanderPlan has provided a planning justification report in support of these applications. The co-operative is intended to be a family project to be developed in phases, and will include one existing cottage, seven new cottages, and a number of communal accessory buildings and structures.

Palmerston Lake has been provincially designated as a lake-trout lake not at-capacity. Township policies require that new development within 300 metres of a designated lake-trout lake undertake an Environmental Impact Study (EIS) to evaluate potential negative impacts on the waterbody or other identified natural heritage features (including Species at Risk, Fish Habitat and Significant Wildlife Habitat) and provide mitigation measures, if required. The property owners retained GEMTEC Consulting Engineers and Scientists Limited to complete this EIS. The EIS dated August 31, 2021, was submitted with the applications. The study area identified in this report included the subject property and the adjacent lands encompassing an area of 120 metres beyond the property boundary.

The conclusion of this EIS was that impacts to the natural environment are anticipated to be minimal. Provided that mitigation measures recommended are implemented as proposed, no significant residual impacts are anticipated from the proposed development.

Following the review of the information pertaining to the natural heritage features of the site, the following general conclusions are provided by GEMTEC in regards to the Environmental Impact Statement.

- No significant impacts to natural heritage features identified on-site, including fish habitat, significant wildlife habitat or habitats of species at risk are anticipated as a result of future residential development.

- The proposed project complies with the natural heritage policies of the Provincial Policy Statement.

- The proposed development complies with the natural heritage policies of the County of Frontenac Official Plan.

As noted in the EIS the subject property is comprised of coniferous and deciduous woodlands, wetlands, shorelines and open water. The shoreline of Palmerston Lake is steep and was determined to meet the criteria for a potentially unstable slope. GEMTEC prepared a Slope Stability Assessment Report, dated June 29, 2021 that established an Erosion Hazard Limit. The report determined that this limit constitutes a safe setback for any proposed development at the site with respect to slope stability. The report also determined that the Erosion Hazard Limit for the slopes along Palmerston Lake will be about 33 metres from the toe of the slope.

The property owners have submitted a Site Servicing Report prepared by Kollaard Associates Engineers, dated June 27, 2022, that describes the planned on-site sanitary (septic) servicing. This report noted that each of the eight (8) cottages will have its own Class 4 septic system and determined that the total daily flow rate for the entire site will be less than the 10,000L/day that would have required approval by the Ministry of the Environment, Conservation and Parks (MECP). This report was circulated to the septic approval authority (Township of South Frontenac) for review.

Comments

Septic Approval Authority (Township of South Frontenac)

As noted above, these applications along with the site servicing report were circulated for review. Preliminary email comments dated December 20, 2022 noted the following items:

- The Kollaard Associates sanitary servicing brief provides some information but does not address whether there is any intent to provide water and sewage services to the proposed workshop, studio, community building, trailer site or the two [sleep cabins].
- As the property is now one lot, the proposed 9450 L/day of sanitary sewage flow listed in the Kollaard Associates brief is only 550 L/day from the 10000 L/day threshold for MECP jurisdiction.
- This is proposed to be a phased development, so it may be useful to have an idea of the total number of phases, as well as what construction is proposed for each phase.
- The drawings from the Kollaard Associates brief are acceptable. Noting that the locations are approximate/not fixed helps in the future, as an approved design may need to relocate sewage system components from these locations to accommodate site topography, soil depth, etc.
- The site plans from Recon Aerial are generally sufficient, although ideally the information from the Kollaard Associates sanitary servicing brief should be plotted onto these plans in the future. This also may be addressed at the site plan control stage.

Mississippi Valley Conservation Authority (MVCA)

These applications were circulated for review. At the time of the writing of this report, no comments had been received.

Public Comments

At the time of writing of this report no public comments had been received.

Conclusion

Planning staff recommend Council receive public comments for consideration about the proposed amendments. Staff will review the comments received, along with technical comments from all agencies, and provide a detailed analysis and recommendation in a final report to Council at a future meeting date.

It should be noted that the proposed Official Plan Amendment is subject to final approval from the County of Frontenac. Therefore, although this report is for a joint public meeting for both the proposed Official Plan Amendment and proposed Zoning By-Law Amendment, the Zoning By-Law Amendment file will not proceed to the recommendation stage until such time as the proposed Official Plan Amendment has been adopted by Township Council and approved by County Council.

Attachments

1. Key Map
2. ZanderPlan Planning Justification Report, dated October 25, 2022
3. EIS prepared by GEMTEC Consulting Engineers and Scientists Limited (August 31, 2021)
4. Slope Stability Report prepared by GEMTEC Consulting Engineers and Scientists Limited (June 29, 2021)
5. Site Servicing Brief prepared by Kollaard Associates Engineers, dated June 27, 2022
6. Drawing Number 211373-SD1 prepared by Kollaard Associates Engineers, dated June 27, 2022
7. Drawing Number 211373-SD2 prepared by Kollaard Associates Engineers, dated June 27, 2022
8. Site Plans (Drawing Numbers C000, C001, C002, C003, C100, C200) prepared by Recon Aerial, dated February 21, 2022

FRONTENAC | Key Map

Legend

- Assessment Parcels
- Citations

Notes

1: 35,259

1.8 0 0.90 1.8 Kilometers

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

October 25, 2022

Township of North Frontenac
6648 Road 506, Plevna
Ontario K0H 2M0

RE: Proposed Official Plan and Zoning By-Law Amendment and Site Plan Control Approval
1099A and 1099B Lafolia Lane
Part Lot 30, Concession 4
Geographic Township of Palmerston
Township of North Frontenac
Owner: OMPAH PALMERSTON COTTAGE CO-OPERATIVE LTD
Applicants: Craig Hall and Amber Hall

To Whom it May Concern,

ZanderPlan Inc. has been retained by Craig Hall and Amber Hall to assist with an Official Plan Amendment application and a Zoning By-Law Amendment application, along with Site Plan Control, for their property in North Frontenac. The property has two civic addresses, 1099A and 1099B Lafolia Lane, and lies in Part of Lot 30, Concession 4, in the Geographic Township of Palmerston. The applicants are seeking to change the land use designation on the property from Rural to Rural Co-operative Area, and re-zone the property from Limited Service Waterfront (LSW), and Limited Service Rural (LSR), to Rural Co-Operative with exceptions (CO-x).

The Official Plan Amendment and Zoning By-Law Amendment are required to allow the applicants to develop a rural co-operative, with the specifics to be implemented through Site Plan Control approval. The co-operative is intended to be a family project to be developed in phases, and will include one existing cottage, seven new cottages, and a number of communal accessory buildings and structures. This report provides planning rationale for the proposed rural co-operative and includes a description of the subject property, proposed uses, and surrounding context. Furthermore, this report outlines how the proposal is consistent with the Provincial Policy Statement (2020) and conforms to the intent of the County of Frontenac Official Plan, the Township of North Frontenac Official Plan, and the Corporation of the Township of North Frontenac Zoning By-Law #55-19.

Subject Property

The subject lands are located on Palmerston Lake in the Township of North Frontenac, outside of the Ompah Settlement Area to the north. The property is approximately 13.76 hectares (34 acres) in size, with roughly 1,300 metres of frontage on Palmerston Lake. The subject lands are irregular in shape, with the western portion of the property forming a peninsula on Palmerston Lake, as shown in Figure 1 below. The entire northern and western property boundaries abut Palmerston Lake, while the eastern and a portion of the southern boundary abuts land.

The subject site is primarily characterized by wooded areas, with local wetlands identified towards the centre of the property. Access to the subject land is provided by Lafolia Lane, a private lane, to the south of the site. One cottage is located at the most north point of the property, and established internal driveways on the subject lands provide access to the cottage and other portions of the property from Lafolia Lane. Existing structures on the site include a cottage, sleep cabin, wash house, shed and dock in the northeast portion of the site.

Figure 1. Aerial View of 1099A and 1099B Lafolia Lane

Proposed Use

The applicants are seeking to develop a family-based Rural Co-operative at 1099A and 1099B Lafolia Lane. The lands are proposed to include the existing cottage, seven (7) new cottages, a workshop, studio, two (2) additional sleep cabins, a communal building, storage building, three (3) gazebos, a boat house, trailer site, as well as three (3) communal docks and water access points. The existing structures associated with the existing cottage would remain in place. The subject property would remain as one land holding, owned by the co-operative. The co-operative is already existing and formed by close family and friends. A majority of the cottages would be used seasonally, with the cottages serviced with lake water and private sewage systems. Water service to the new cottages will be provided by surface water intake from Palmerton Lake, and sanitary services will be provided by individual septic tanks and leaching beds installed near each proposed cottage. The existing cottage has private servicing in place by means of a surface water intake from Palmerston Lake, and sanitary services are provided by means of an individual septic tank and leaching bed. The new accessory buildings and facilities are not anticipated to require water or sanitary services. Access to the property will continue to come from Lafolia Lane, and access to the residential cabins and shared buildings and facilities will be provided by existing and new driveways on the property.

Surrounding Context

The site is bordered to the north and west by Palmerston Lake. The parcels to the east of the site are zoned as Limited Service Waterfront (LSW) and Limited Service Rural (LSR), and contain cottages and year-round dwellings. Southeast of the site is a large rural lot in a Rural (RU) zone that is undeveloped. Southwest of the site is the Ompah Hamlet in the Hamlet (H) zone and characterized primarily by residential land uses. There are no livestock facilities and no conflicting land uses that have been identified in proximity to the site.

Provincial Policy Statement, 2020

The Provincial Policy Statement (PPS) 2020 provides policy direction on matters of Provincial interest related to land use planning and development. The PPS is issued under Section 3 of the *Planning Act* and approval authorities are required to ensure that decisions on planning matters are consistent with the policies. The following policies are relevant to this proposal.

Section 1.0 of the PPS speaks to Building Strong Healthy Communities with policies for Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns in Section 1.1. The development of a rural co-operative would make use of an existing lot and road network, representing efficient development and land use patterns (Sec. 1.1.1a). The proposal will result in seven new cottages and recreational uses, increasing a mix of land uses and housing

types in the Township to meet long-term needs (Sec. 1.1.1b). The development will not result in any environmental or health and safety concerns, nor will it prohibit the settlement area from future expansion (Sec. 1.1.1c & 1.1.1d). The subject property has existing access from a private lane, minimizing the need for new land or servicing expansions to accommodate the cottages (Sec. 1.1.1e). Biodiversity will be conserved in nearby natural areas as the site will be designed with a low ecological impact, and appropriate measures will be implemented to protect natural heritage features and functions (Sec. 1.1.1h). Overall, changing the Official Plan designation and Zoning to allow for a rural co-operative on the subject property will not negatively affect a healthy, liveable, and safe community.

Section 1.1.5 of the Provincial Policy Statement provides policies for Rural Lands in Municipalities. The proposed rural co-operative is a permitted use on rural lands as it will provide a resource-based recreational use, and other rural land uses (Sec.1.1.5.2). The development will be subject to site plan control approval to ensure that it remains compatible with the rural landscape and can be sustained by rural service levels (Sec. 1.1.5.4).

Section 1.2.6 of the PPS speaks to Land Use Compatibility noting that “Major facilities and sensitive land uses shall be planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential adverse effects” (Sec. 1.2.6.1). The proposed development is not a major facility, but part of the subject property does fall within a 500m influence area surrounding a waste disposal facility. However, the 500-metre influence area just touches onto the south side of the subject property. The majority of the property and all of the future development areas are located outside of the 500-metre influence area and therefore no conflicts are anticipated.

Sec 1.4 of the PPS speaks to Housing and states that “planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected market-based needs” (Sec. 1.4.3). The proposed development will bring seasonal residential uses to the community, helping to contribute to the supply and range of housing types in North Frontenac.

Section 1.6.6 of the PPS speaks to Sewage, Water and Stormwater and states that “where municipal sewage services and municipal water services or private communal services and private communal water services are not available, planned or feasible, individual on-site sewage services and individual on-site water services may be used provided that site condition are suitable for the long-term provision of such services with no negative impacts” (Sec. 1.6.6.4) The proposed cottages on the subject lands will be serviced by individual water and septic systems. Water service will be provided by means of a surface water intake from Palmerston Lake, and sanitary services will be provided by means of individual septic tanks and leaching beds installed near each proposed cottage. A Sanitary Servicing Brief completed by Kollaard Associates on June

27, 2022, will be provided with the planning applications to demonstrate how the new cottages will be serviced.

Section 1.6.7 of the PPS speaks to Transportation Systems, stating that efficient use should be made of existing and planned infrastructure (Sec. 1.6.7.2). The proposed development will utilize the existing transportation infrastructure as the subject property has direct access to Lafolia Lane, an existing private lane.

Section 2.0 of the PPS sets forth policies for the Wise Use and Management of Resources, with policies to protect Natural Heritage features in Section 2.1. This Section of the PPS speaks to the protection of natural heritage features and functions such as wetlands, woodlands, wildlife habitat, ANSIs and valleylands. The intent is to ensure that development does not have any negative impact on the natural heritage features and functions, and that any anticipated impacts can be appropriately mitigated. GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) completed an Environmental Impact Statement (EIS) for the subject property in 2021. Based on the results of the impact analysis, impacts to the natural environment are anticipated to be minimal, and provided that mitigation measures recommended in Section 7 of the EIS are implemented as proposed, no significant residual impacts are anticipated from the proposed development.

Section 2.2 of the Provincial Policy Statement provides policies for protecting, improving or restoring the quality and quantity of water. As mentioned, the subject property is adjacent to Palmerston Lake along the northern, western, and southern property boundaries. There are surface water features on-site which were identified by GEMTEC during a field investigation and are limited to a small unnamed watercourse and a wetland in the middle of the property. The Environmental Impact Statement completed by GEMTEC provides general mitigation measures to ensure the protection of water quality and fish habitat.

Section 2.3 speaks to Agriculture and states that “prime agricultural areas shall be protected for long-term use for agriculture” (Sec. 2.3.1). There are no prime agricultural areas on or near the subject property. There have been no livestock facilities identified on or within proximity to the subject property that would require the completion of a Minimum Distance Separation (MDS) calculation.

Section 2.4 speaks to Minerals and Petroleum and states that “minerals and petroleum resources shall be protected for long-term use” (Sec. 2.4.1). There are no known minerals or petroleum resources on or near the subject property. Section 2.5 speaks to Mineral Aggregate Resources and states that “mineral aggregate resources shall be protected for long-term use” (Sec. 2.6.1). There are no known mineral aggregate resources on or near the subject property. Section 2.6 of

the PPS speaks to Cultural Heritage and Archeology. Due to the proximity of the subject lands to the shoreline, and the size of the parcel, an archaeological assessment was required by Frontenac County. A stage 1 and 2 Archaeological Assessment was completed by Matrix Heritage Inc. in June, 2021. Despite the site having archaeological potential, nothing of archaeological significance was found in the study area and no further assessment was required. The report has been submitted to the Ministry for review.

Section 3.0 of the PPS provides policies for Protecting Public Health and Safety, with Section 3.1 providing policies for Natural Hazards. According to the Slope Stability Assessment completed by GEMTEC on June 29, 2021, the site has an overall slope height of about 7 to 11 metres with inclinations between about 17 and 30 degrees from the horizontal along the natural slope. It is stated in the PPS that development shall generally be directed to areas outside of erosion hazards (Sec. 3.1.1). The Slope Stability Assessment establishes the "Erosion Hazard Limit" for the subject site. The limit constitutes a safe setback for any proposed development on the site with respect to the slope stability, and will be implemented during the site plan and construction stages of development. There are no other known natural hazards which would affect the proposed development. As per Section 3.2 of the PPS, there are no known human-made hazards that will affect the proposed development.

Overall, changing the land use designation and rezoning the subject property to allow for a rural-co-operative on the property would be consistent with the policies of the Provincial Policy Statement, 2020.

County Of Frontenac Official Plan

The County of Frontenac Official Plan creates the framework for guiding land use changes in the County by protecting and managing the natural environment, directing and influencing growth patterns and facilitating the vision of the County as expressed through its residents. The subject property falls within the Rural designation of the Official Plan.

Section 3.0 of the Official Plan provides policies that are intended to help guide new development across Frontenac County, with policies for Rural Lands provided in Section 3.3. The proposed development is a permitted use on Rural Lands as it provides a resource-based recreational use (recreational/cottage dwellings) and other rural land uses that are compatible with the nature of the area (Sec. 3.3.1). The large lot is primarily covered with woodlands, and the development will reflect the intent of preserving the rural character of the County. The preservation of trees, building and facility locations, building footprints, and setbacks from the water can be implemented during the site plan stage to ensure that the development will be unobtrusive and low impact, and designed to blend in with the rural landscape (Sec. 3.3.3.2c).

Section 6.0 of the Official Plan provides policies for identifying and conserving Heritage and Culture, with Section 6.2 providing policies for preserving Archaeological Resources. Due to the proximity of the subject lands to the shoreline, and the size of the parcel, an archaeological assessment was required by Frontenac County. A stage 1 and 2 Archaeological Assessment was completed by Matrix Heritage Inc. in June, 2021. As noted above, nothing of archaeological significance was identified on the site and no further assessment was recommended.

Overall, the proposed development would meet the intent of the Rural policies in the County's Official Plan.

Township Of North Frontenac Official Plan

The purpose of the Township of North Frontenac Official Plan is to guide and direct future growth in a logical and orderly manner, to protect existing development from the adverse effects which may arise from incompatible development and redevelopment, and to ensure healthy and sustainable growth while encouraging economic development which will benefit all residents of the Township. The subject property is designated as Rural in the Official Plan, and falls partly within the 500m influence area of a Waste Disposal Facility (See Figure 2 below). An Official Plan Amendment is needed to change the land use designation from Rural to Rural Co-operative Area.

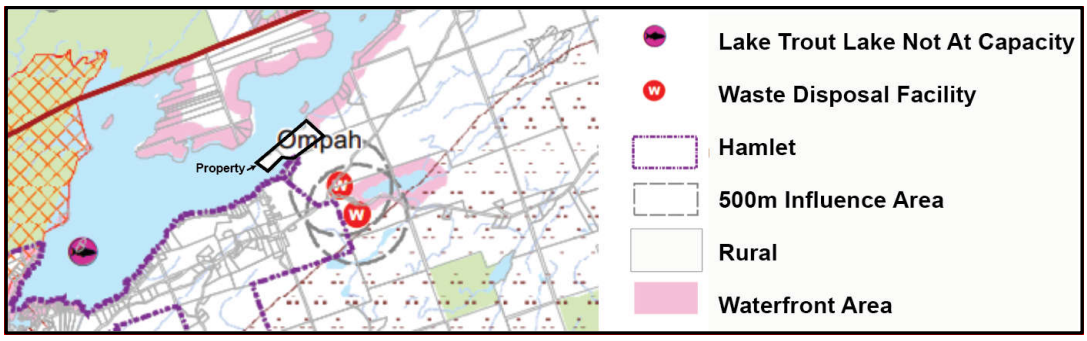

Figure 2. Township of North Frontenac – Official Plan

Section 3.0 of the Township's Official Plan provides General Development Policies. Development shall take place in accordance with the general development policies where they are relevant. The following policies are relevant to this proposal.

Section 3.4 of the Official Plan, which provides policies for Cultural Heritage and Archaeological Resources, states that an archaeological impact assessment may be required when any private development will affect an area considered to have archaeological potential (Sec. 3.4.2(v)). As noted above and in order to address the cultural heritage policies in the Official Plan, a Stage 1

and 2 Archaeological Assessment was completed by Matrix Heritage. Nothing of archaeological significance was identified onsite and no further assessment was recommended.

Section 3.16 of the Official Plan provides policies for lands affected by Waste Disposal sites. Influence areas from waste management facilities are established and recognized under Section 3.16.3 of the Official Plan. Development proposed within an influence area of 500 metres of the fill area of an active or closed waste disposal facility shall be accompanied by a technical study to demonstrate that the proposed development will not be negatively impacted by the facility (Sec. 3.16.3). As the majority of the site and all future development will be located outside of the 500-metre influence area, no land use conflicts are anticipated and no further assessment is required.

Section 3.17 of the Official Plan provides policies for Water Supply and Sewage Disposal, with provisions for Individual On-Site Systems in Section 3.17.2. The new cottages will be serviced by individual on-site sewage services, and individual on-site water services, which is permitted as per Section 3.17.2A. As per the Sanitary Servicing Brief completed by Kollaard Associates, the total daily design sewage flow rate of the property is 9,450 L/day, which is less than 10,000L/day, therefore the septic system designs are governed by the Ontario Building Code and the septic permit applications will be made with the Township of North Frontenac.

Section 4.0 of the Official Plan provides Land Use policies to guide development for certain areas or land uses in the Township. As mentioned, the subject property is designated as Rural in the Official Plan. Section 4.2 of the Official Plan provides policies for the Rural Area land use designation. Within the Rural Area, the Plan provides for a supply of land for a diversity of traditional and evolving rural uses. A number of uses are located and permitted within the Rural Area designation, including rural co-operative areas. While rural co-operatives are recognized in the Rural Area, the use requires a specific land use designation in the Official Plan to be permitted.

Section 4.4 provides policies for Rural Cooperative Areas. The policies note that the intent of a Rural Co-operative Area is “a single planned development on property owned in common, such as an incorporated co-operative or non-profit organization, land trust or family farm where the ownership and responsibility for the maintenance of all land uses, buildings, services and general management rests with the members.” The proposed development requires an Official Plan Amendment to change the land use designation of the property to Rural Co-operative Area. The predominant use of land will be for a single planned development owned in common where the ownership and responsibility for the maintenance of all land uses, buildings, services, and general management will rest with the members (Sec. 4.4.1). The uses will adhere to the permitted uses in the Rural Co-operative Area, which are the same as the permitted uses for the Rural Area (Sec. 4.4.1). The development is consistent with the planning principles for the Rural Co-operative Area

as the frontage will be on an existing private lane, and no buildings will be erected on any part of the lot subject to flooding, subsidence, erosion or any other physical hazard (Sec. 4.4.2). Lastly, the subject lands will be appropriately zoned in the implementing Zoning By-law to the Rural Co-operative zone once the concurrent Zoning By-law amendment is complete (Sec. 4.4.5).

Overall, the proposed Official Plan Amendment to the Rural Co-operative Area designation would meet the intent of the policies in the Township's Official Plan.

The Corporation Of The Township Of North Frontenac Zoning By-Law By–Law #55-19

The subject property falls partially in the Limited Service Waterfront (LSW) zone and partially in the Limited Service Rural (LSR) zone as shown in Figure 3 below. A small portion of the south side of the property is affected by the 500-metre influence area of a nearby waste disposal facility; however, the majority of the site and all of the proposed development area is located beyond the 500-metre setback. The property is proposed to be re-zoned to Rural Cooperative with an exception (CO-x), to permit the establishment of a rural cooperative on the property.

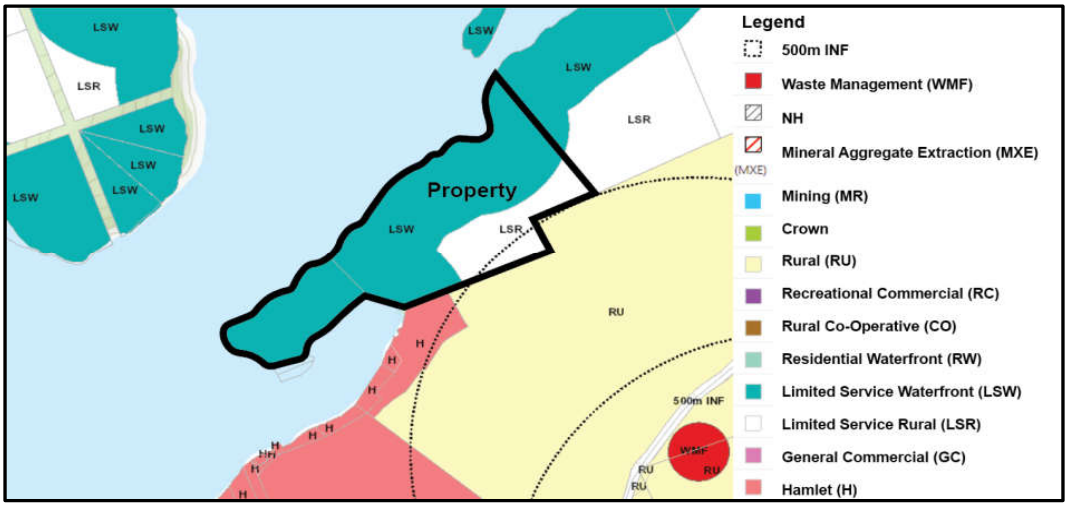

Figure 3: Zoning of the Subject Property

Section 3.0 of the Zoning By-law provides General Provisions which apply to all properties regardless of the specific zoning if relevant. Section 3.1 provides provisions for Accessory Buildings, Structures and Uses. The site plan prepared by the applicants includes a variety of accessory buildings and structures. The accessory uses will comply with setback requirements to the interior and rear lot line, as well as to the private right of way (Sec. 3.1.1(d)), will not exceed 8 metres in height or two (2) storeys (Sec. 3.1.1(h)), and will comply with the setback requirement

of 3 metres to the main buildings or other accessory structures (Sec. 3.1.1(j)). These requirements will be implemented through the site plan stage of development.

Section 3.1.2 of the Zoning By-law provides provisions specific to Boathouses, Docks, Waterfront Structures and Pumphouses. As per Section 3.1.2, a maximum of (1) boathouse and one (1) dock are permitted on the lot, subject to the provisions in Section 3.1.2(a). The proposed development complies with the provisions set out in Section 3.1.2 as the maximum area of the boathouse on site will be 15.6 square metres, which does not exceed the maximum gross area permitted for a boathouse (47 square metres) (Sec. 3.1.2(a(i))). Further, the boathouse will not exceed 4.5 metres in total height, will be limited to a single storey, will not exceed the minimum setback of 3 metres from the nearest adjacent side lot line, and will not project more than 8 metres into the water (Sec. 3.1.2(a)(ii)-(iv)).

Section 3.1.2(b) of the Zoning By-law provides provisions for docks. There is one existing dock on the site at the location of the existing cottage. The owners are proposing to install three additional docks to service the co-operative units, in the three waterfront amenity areas for common usage, as shown on the site plans. An exception to the By-law is therefore required to permit a total of four (4) docks onsite as part of the Co-operative.

Section 3.1.2(c) of the Zoning By-law provides provisions for waterfront structures. As per Section 3.1.2(c)(i), waterfront structures which are unattached to a main building shall not exceed a combined horizontal surface area of more than 20 square metres for all structures within the 30-metre setback from the high-water mark. The applicant is requesting an exception to Section 3.1.2(c)(i) in order to construct four waterfront structures (three gazebos and a marine storage shed) within the 30-metre setback, which, in addition to the existing structures associated with the existing cottage, collectively exceed the minimum horizontal surface area of 20 square metres. The structures will have a combined horizontal surface area of 85 square metres, which requires relief of 65 square metres from Section 3.1.2(c)(i) of the Zoning By-law. Given the size of the property, and the amount of shoreline frontage, it is not anticipated that granting this relief will result in an impact on the rural landscape or lake health. Section 3.1.2(c)(iii) requires that all waterfront structures shall be setback a minimum of 15 metres from the high-water mark. An exception is required to permit the placement of the waterfront structures at a minimum waterbody setback of 5 metres.

Section 3.29 of the Zoning By-law provides general provisions for a Natural Vegetation Buffer and Waterfront Activity Areas. As per Section 3.29.1 which provides provisions for a Natural Vegetation Buffer, one (1) access corridor not greater than 7 metres in width passing through the natural vegetated buffer shall be permitted to provide an access between the main use of the land and the waterfront activity area (Sec.3.29.1(a)). An exception is requested to permit the use

of four (4) access corridors to provide access to three proposed waterfront activity areas, including the existing water access area. Given the size of the property, it is not anticipated that granting this relief will result in an impact on the rural landscape or shoreline or lake health. Further, three corridors are requested in order to provide access to the three common waterfront activity areas which will be shared by the users of the eight cottages on site.

Section 3.29.2 of the Zoning By-law provides provisions for Waterfront Activity Areas. One waterfront activity area shall be permitted on waterfront lots, in order to accommodate waterfront structures, docks and other shoreline features including access to the water body. Three waterfront activity areas are proposed on the subject lands, in addition to the existing waterfront activity area associated with the existing cottage. Per subsection (a), *a maximum of twenty-five percent (25%) of the shoreline frontage or up to 15 metres of shoreline frontage, whichever is the lesser, may be used for a waterfront activity area for residential use*. The owners are proposing to have three common waterfront activity areas, with two up to 15 metres in width, and the main area up to 20 metres. An exception is therefore required to permit a total of four (4) waterfront activity areas, one up to 20 metres and the balance each up to 15 metres in width, including the existing waterfront activity area for the existing cottage.

Section 3.36 of the Zoning By-law which provides provisions for Recreational Vehicles on Individual Lots states that provisions regarding the placement of recreational vehicles on individual lots shall be governed by the Township of North Frontenac Recreational Vehicles By-Law, as amended from time to time. The applicants include a site for a recreational vehicle on the property and will have to apply to place the vehicle on the property, as well as comply with the Township's Recreational Vehicle By-law.

Section 4.0 of the Zoning By-law provides policies for the various Zones in the Township, with Section 4.10 including provisions for lands zoned as Rural Co-operative (CO). The proposed cottages are a permitted principal use, as single detached dwellings are permitted in the CO zone (Sec. 4.10.1). Most of the accessory uses proposed by the applicants are permitted, with the exception of additional sleep cabins. The applicants wish to seek an exception to the Rural Co-operative (CO) zone to permit three sleep cabins on site; one existing sleep cabin is in place and two additional sleep cabins are proposed (Sec. 4.10.2). The subject property meets the remainder of the Zone Requirements for Rural Co-operatives, as shown in Table 1 below. As per the Additional Provisions required in the CO zone, as outlined in Section 4.10.4, the subject lands will be subject to Site Plan Control approval. The applicants are filing a Site Plan Control Agreement application concurrent with the Official Plan Amendment and Zoning By-law Amendments (Sec. 4.10.4(a)). The principal structures will not be erected closer than 6 metres to other principal structures, and the lot has frontage onto and direct access to a private lane (Sec. 4.10.4(b) & Sec.

4.10.4(c)). As exemplified above, the accessory uses, buildings, and structures and other general provisions will be in accordance with Section 3.0 of the Zoning By-law (Sec. 4.10.4(e)). Setbacks, building locations, and other provisions will be implemented through Site Plan Control.

Table 1. Zone Requirements for Rural Co-operative Zone (CO)

	Requirement	**Proposed**
Minimum Lot Area	10 hectares	13.76 hectares
Minimum Lot Frontage	100 metres	~1,300 metres
Maximum Building Height	11 metres	< 11 metres
Maximum Density	One (1) dwelling per hectare	0.6 dwellings per hectare
Maximum Lot Coverage	Ten percent (10%)	1%

In summary, the applicants are requesting that the subject lands located at 1099A and 1099B Lafolia Lane are re-zoned from Limited Service Waterfront (LSW) and Limited Service Rural (LSR) to Rural Co-operative with exceptions (CO-x). The exception zone will recognize the following:

- A total of four (4) docks shall be permitted
- Waterfront structures which are unattached to a main building shall not exceed a combined horizontal surface area of more than 85 square metres for all structures within the 30-metre setback from the high-water mark.
- Waterfront structures shall be permitted to locate a minimum of 5 metres from the high water mark.
- Four (4) access corridors not greater than 7 metres in width passing through the natural vegetated buffer shall be permitted to provide an access between the main use of the land and the waterfront activity areas on site.
- Four (4) waterfront activity areas for residential use may be permitted, each with 15 metres of shoreline frontage.
- Three (3) sleep cabins shall be permitted onsite.

Supporting Technical Studies

Environmental Impact Statement – Completed by GEMTEC, August 31, 2021

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Craig and Amber Hall to carry out an Environmental Impact Statement (EIS) for the subject property. The objective of the work was to identify and evaluate the significance of any natural heritage features on the subject property and within the study area, and assess the potential impacts from the proposal. Based on the results of the impact analysis, impacts to the natural environment are anticipated

to be minimal, and provided that mitigation measures recommended in Section 7 of the EIS are implemented as proposed, no significant residual impacts are anticipated from the proposed development.

Sanitary Servicing Brief – Completed by Kollaard Associates, June 27, 2022

Kollaard Associates completed a Sanitary Servicing Brief and Sanitary Servicing Brief Plans to demonstrate how the seven new cottages will be services. Water service is proposed to be provided by means of a surface water intake from Palmerston Lake, and sanitary services will be provided by means of individual septic tanks and leaching beds installed near each proposed cottage. Included in the report is a table that summarizes the design flow for the proposed septic systems. The total daily design sewage flow rate of the property is 9,450 L/day, which is less than 10,000L/day, therefore the septic system designs are governed by the Ontario Building Code and the septic permit applications will be made with the Township of North Frontenac.

Slope Stability Assessment – Completed by GEMTEC, June 29, 2021

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) completed a Slope Stability Assessment of the site in 2021, with a goal to establishing an erosion hazard limit on the site which would guide future development. The project team noted the presence of bedrock outcrops on the site along with glacial till deposits. The team considered the geometry of the slope and undertook a series of augerholes. The report provides recommendations for the implementation of an Erosion Hazard Limit on the site to ensure safe development.

Stage 1 and 2 Archaeological Assessment – Completed by Matrix Heritage Inc., June, 2021

Matrix Heritage completed a Stage 1 and 2 Archaeological Assessment on the subject lands in June, 2021. Despite having the potential for finding items of archaeological significance, there was nothing of archeological significance found on the site during the field investigations on May 25, 2021 and no further assessment is recommended on the site. The report has been submitted to the Ministry for review, with a review letter anticipated in December of 2022.

Summary

The applicants are proposing to establish a rural co-operative on the lands with the civic address 1099A and 1099B Lafolia Lane. The co-operative is formed by close family and friends, and the lands are proposed to locate the existing cottage, seven new cottages, and accessory buildings and structures. The cottages will be serviced with private water and septic systems, and accessed by the existing private road. The proposed rural co-operative is consistent with the policies of the Provincial Policy Statement, 2020 as it will be compatible with the rural landscape, and can be

sustained by rural service levels. Further, the various technical studies including an Environmental Impact Study, Slope Stability Assessment, and Stage 1 and 2 Archeological Assessment demonstrate that provincially protected resources are not impacted by the proposed development, and that development can be directed to an area outside of environmental hazards.

The proposed development meets the intent of the Rural area policies in both the County of Frontenac Official Plan and the Township of North Frontenac Official Plan. While rural co-operatives are recognized in the Rural Area of the Township, the use requires a specific land use designation to be permitted. For this reason, an Official Plan Amendment to the Rural Co-operative Area designation is requested.

Amendments to the Township's Zoning By-law are required to permit the use of the co-operative on the subject lands. It is requested that the subject lands located at 1099A and 1099B Lafolia Lane are re-zoned from Limited Service Waterfront (LSW) and Limited Service Rural (LSR) to Rural Co-operative with exceptions (CO-x). The subject lands will be subject to Site Plan Control approval, and to ensure that the development meets the provisions of the Zoning By-law exceptions are sought to recognize the following:

- A total of four (4) docks shall be permitted
- Waterfront structures which are unattached to a main building shall not exceed a combined horizontal surface area of more than 85 square metres for all structures within the 30-metre setback from the high-water mark.
- Waterfront structures shall be permitted to locate a minimum of 5 metres from the high water mark.
- Four (4) access corridors not greater than 7 metres in width passing through the natural vegetated buffer shall be permitted to provide an access between the main use of the land and the waterfront activity areas on site.
- Four (4) waterfront activity areas for residential use may be permitted, each with 15 metres of shoreline frontage.
- Three (3) sleep cabins shall be permitted onsite.

Should you require any additional information, please don't hesitate to contact the undersigned.

Sincerely,

Tracy Zander

Tracy Zander, M.Pl, MCIP, RPP

GEMTEC
www.gemtec.ca

Environmental Impact Statement
Zoning Amendment and Cooperative Development
1099B Lafolia Lane, Palmerston, Ontario

experience • knowledge • integrity expérience • connaissance • intégrité

GEMTEC
www.gemtec.ca

Submitted to:
Craig and Amber Hall
3215 Appleton Side Road
Carleton Place, ON
K7C 4M3

Environmental Impact Statement
Zoning Amendment and Cooperative Development
1099B Lafolia Lane, Palmerston, Ontario

August 31, 2021
Project 100227.001

experience • knowledge • integrity

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1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Craig and Amber Hall to carry out an Environmental Impact Statement (EIS) for the property located at 1099B Lafolia Lane, in the Geographic Township of North Frontenac, Palmerston, Ontario, Frontenac County (hereafter referred to as “the subject property”). The general location of the subject property is illustrated on Figure A.1 in Appendix A.

1.1 Purpose

The proponent is seeking a zoning amendment and future rural cooperative development. Based on Section 4.12 of the Township of North Frontenac Official Plan (Township of North Frontenac, 2017) an EIS is required showing that the project will not negatively impact any potential natural heritage features which may be present within the study area. The study area is defined as the property boundary and the adjacent lands encompassing an area of 120 m beyond the property boundary. The subject project and the extents of the study area are illustrated on Figure A.2.

1.2 Objective

The 2020 Provincial Policy Statement (MMAH, 2020) issued under Section 3 of the Planning Act states that “development and site alteration shall not be permitted in: habitats of species at risk, significant wetlands, significant woodlands and significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.” Similarly, the 2020 Provincial Policy Statement dictates that ‘development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.”

The objective of the work presented herein is twofold; 1) to identify and evaluate the significance of any natural heritage features, as defined in the Provincial Policy Statement (MMAH, 2020), on the subject property and within the broader study area and; 2) to assess the potential impacts from the proposed plan of subdivision on any natural heritage features identified and to recommend appropriate and defensible mitigation measures to ensure the long-term protection of any natural heritage features identified.

To meet these objectives, the EIS presented herein has been completed in accordance with the following provincial and municipal regulations, policies and guidelines:

- Provincial Policy Statement (MMAH, 2014);
- Endangered Species Act (Ontario, 2007);
- Conservation Authorities Act (Ontario, 1990);
- Natural Heritage Reference Manual (OMNR, 2010); and
- Township of North Frontenac Official Plan (Township of North Frontenac, 2017).

1.3 Physical Setting

The subject property is located on part of Concession 4, Lot 30, municipally addressed as 1099B Lafolia Lane, Palmerston, in the Geographic Township of North Frontenac, County of Frontenac, Ontario, is approximately 3.13 hectares (ha), and is comprised of coniferous and deciduous woodlands, wetlands, shorelines and open water. The subject property is bound to the north, west and south by Palmerston Lake. To the east, the site is bound by part of Concession 4, Lot 30, municipally addressed as 1099A Lafolia Lane, which is also owned by the client, collectively covering an area of approximately 14.5 ha.

1.4 Land Use Context

The subject property is situated in a seasonally residential rural area. The existing land use designation from the County of Frontenac OP are Limited Service Waterfront (LSW) and Limited Service Rural (LSR). The land-use from the Township of North Frontenac Official Plan is rural.

2.0 METHODOLOGY

2.1 Desktop Review

A desktop information gathering exercise was completed to aid in the scoping of field investigations and to gather information relating to natural heritage features which may be present on the subject project or within 1 km of the subject property. An additional component of the desktop review was to assess the potential presence of SAR to occur on the subject property or within the study boundary based on a review of publicly accessible occurrence records, and review of SAR habitat requirements and range maps.

Following changes to the MNRF natural heritage information request process, as of 2019, the MNRF is no longer providing responses to these requests. As such, an information request was not submitted for this project. In lieu of a request response, the Natural Heritage Information Request Guide (OMNRF, 2018) was consulted and the data resources listed below were reviewed for relevant natural heritage feature and SAR data relating to the site.

Information regarding the potential presence of natural heritage features and SAR within the vicinity of the site was obtained from the following sources:

- Make A Map: Natural Heritage Areas (OMNRF, 2014a);
- Land Information Ontario (OMNR, 2011c);
- Frontenac County Official Plan (Frontenac County, 2016);
- Township of North Frontenac (2017);
- Ontario Geological Survey (OGS, 2019);
- Fisheries and Oceans Canada SAR Maps (DFO, 2019);
- Natural Heritage Information Centre Biodiversity Explorer (OMNRF, 2013);
- Breeding Bird Atlas of Ontario (Cadman et al., 2007)
- Atlas of Mammals of Ontario (Dobbyn, 1994);
- Ontario Herpetofaunal Atlas (Oldham and Weller, 2000);
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019);
- iNaturalist Explore, NHIC Rare Species and Herps of Ontario (iNaturalist, 2021);
- eBird Explore Hotspots (eBird, 2021);
- County of Frontenac Geo Portal (County of Frontenac, undated); and
- Mississippi Conservation Authority Geo Portal (MVCA, undated).

2.2 Field Investigations

Field investigations were undertaken to describe in general, the natural and physical setting of the subject property with a focus on natural heritage features and to identify any potential SAR or their habitat that may exist at the subject property.

Field investigations completed in support of this EIS are outlined in Table 2.2 below. Photographs of site features taken during field investigations are provided in Appendix B.

Table 2.1 Summary of Field Investigations

Date	Time	Weather	Purpose
May 6, 2021	12:45-14:30	10°C, ~30% cloud cover, Beaufort 2, no precipitation	Ecological land Classification, Turtle Basking Survey
May 13, 2021	12:45-15:20	18°C, ~10% cloud cover, Beaufort 0, no precipitation	Turtle Basking Survey
June 4, 2021	08:00-12:00	17°C, ~100% cloud cover, Beaufort 0, light precipitation	Ecological land Classification, Breeding Bird Survey, Turtle Basking Survey
June 18, 2021	07:30-10:00	15°C, ~60% cloud cover, Beaufort 1, no precipitation	Breeding Bird Survey

2.2.1 Ecological Land Classification

Vegetation communities on the subject property were delineated during the desktop review stage of this EIS using publicly available air photos and confirmed in the field on May 6 and June 4, 2021, following the Ecological Land Classification System for Southern Ontario (Lee et al., 2008). Vegetation communities were confirmed in the field by employing the random meander methodology while documenting dominant vegetation species within the various vegetation community forms.

2.2.2 Breeding Bird Surveys

Breeding bird surveys were conducted on two occasions at four point count locations; breeding bird survey locations are provided on Figure A.2 in Appendix A. Breeding bird surveys followed protocols from the Canadian Breeding Bird Surveys (Downes and Collins, 2003) and the Ontario Breeding Bird Atlas (Cadman et al., 2007). Surveys were conducted no earlier than 30 minutes before sunrise and were completed within 5 hours of sunrise, to encompass peak song bird activity. Breeding bird surveys consisted of 5 minutes of passive listening in which all birds heard or seen within the survey period were recorded, including species, sex and breeding behaviour, if possible.

A list of all avian species identified on-site is provided in Table C.1 in Appendix C.

2.2.3 Basking Turtle Surveys

In order to address the potential for the site to provide turtle overwintering habitat and to assess the presence or absence of Blanding's turtle, a species at risk, a series of three turtle basking surveys were completed following the approved protocol for Blanding's turtles established by the MNRF (2015).

2.3 Data Analysis

An evaluation of the significance of natural heritage features, the sensitivity of identified flora and fauna and the potential impacts posed by the proposed development was undertaken through an analysis of desktop and field investigation data using the approaches and criteria outlined in the following documents:

- Natural Heritage Reference Manual (OMNR, 2010);
- Significant Wildlife Habitat Technical Guide (OMNR, 2000);
- Significant Wildlife Habitat Ecoregion Criterion Schedules (OMNRF, 2015); and
- Significant Wildlife Habitat Mitigation Support Tool (OMNRF, 2014b).

3.0 EXISTING ENVIRONMENT

3.1 Ecoregion

The site is situated in Ecoregion 5E-11 (Georgian Bay), which extends from southeastern Lake Superior in the west to the central portion of the Ottawa River valley and the Quebec border in the east. The climate of Ecoregion 5E is categorized as humid, cool-temperate ecoclimate with a mean annual temperature range of 2.8°C to 6.2°C, and an annual precipitation range between 771 mm to 1,134 mm (Crins et al., 2009).

The eastern portion of the Ecoregion, which the subject property is located, is underlain by a deeper layer of acidic and morainal material, specifically, kame moraines. This Ecoregion falls with Rowe's (1972) Great Lakes – St. Lawrence Forest Region, comprising some or all of the Algoma, Sudbury-North Bay, Algonquin-Pontiac, Georgian Bay, and Middle Ottawa Forest Sections (Crins et al., 2009).

3.2 Study Area Land Use

A review of aerial photographs indicates that the subject property and surrounding area is mainly forested rural, with some lakefront residential dwellings (Figure 1). Historical aerial imagery depicts no observable development between 2009 - 2015.

Figure 1. Temporal Changes in Land Use

3.3 Landforms, Soils and Bedrock Geology

The topography of the site slopes downward gradually from the west to the east. The site has a topographical high of 276 mASL in the southeastern corner of the property and a topographical low of 271 mASL along the shoreline of the northwestern boundary.

The subject project is located within the physiographic region described by Chapman and Putman (1984) as the Algonquin Highlands consisting of shallow till and rock ridges.

The Ontario Geological Survey (OGS, 2019) identifies a single surficial soil unit on-site, Precambrian bedrock.

Bedrock at the site, as described by OGS (2019) consists of carbonate metasedimentary rocks of the Grenville Supergroup and the Flinton Group, composed of marble, calc-silicate rocks, skarn, and tectonic breccias.

3.4 Surface Water, Groundwater and Fish Habitat

The subject property is adjacent to Palmerston Lake along the northern, western, and southern property boundaries. Surface water features identified on-site during the field investigations were limited to a small unnamed watercourse and a wetland situated in the middle of the subject property.

The watercourse enters the subject property at the south central property line, and was observed to be flowing underneath Lafolia Lane through a small culvert. The unnamed watercourse is not mapped on either Land Information Ontario (OMNR, 2011c) or County of Frontenac GeoPortal (undated). Flow was observed to constant, albeit very slow. The watercourse likely serves a drainage point for higher elevated lands south of the subject property before discharging into the on-site wetland.

A fisheries assessment was not conducted as part of this EIS; however, the Palmerston Lake is known to provide fish habitat for a variety of fish species.

Palmerston Lake has been confirmed to provide habitat for lake trout. While lake trout are not listed as threatened or endangered under the *Endangered Species Act (2007),* the counties and townships have identified lake trout and their habitat to be significant at the local level. County of Frontenac Official Plan (2016) indicates that the lake trout's slow growth, late maturity, low reproductive potential and slow replacement rate make it a unique species in the province. As a top predator, the lake trout is an important part of the province's natural heritage and an excellent indicator of the health of these fragile aquatic ecosystems. The County of Frontenac Official Plan (2016) has identified Palmerston Lake as a 'moderately sensitive lake trout lake' where as the Township of North Frontenac (2017) classifies Palmerston Lake as a 'lake trout lake - not at capacity.'

Groundwater investigations were not completed in support of this EIS.

3.5 Vegetation Communities

Vegetation communities on-site were confirmed by GEMTEC in 2021, following protocols utilized in the Southern Ontario Ecological Land Classification System (Lee et al., 2008). Vegetation at the site represents a mosaic of mixed forests and a wetland. Table 3.1 below provides a summary of the various vegetation communities identified on-site while Figure A.3 in Appendix A provides an illustration of the various vegetation communities.

Table 3.1 Vegetation Communities On-site

ELC Type	Description	Size (ha)
Very Shallow, Dry – Fresh: Maple Hardwood (G018Tt)	Located in the southwestern portion of the subject property, near the tip of the peninsula – maple hardwood wooded area. The community was dominated by sugar maple (*Acer saccharum*). Other hardwood constituents include red oak (*Quercus rubra*), ironwood (*Ostrya virginiana*), American beech (*Fagus grandifolia*), and white birch (*Betula papyrifera*). Mature specimens of sugar maple, red oak, American beech and white birch were present. The shrub layer was mostly comprised of striped maple (*Acer pensylvanicum*).	2.08
Very Shallow, Dry – Fresh: Mixedwood (G019Tt) (Deciduous dominant)	Located along the wester, eastern, and partly within the central portions of the subject property, is a mixedwood forest with more occurrences of deciduous than coniferous species. This community was dominated by sugar maple, balsam fir (*Abies balsamea*) and eastern hemlock *(Tsuga canadensis*). Other constituents include eastern white cedar (*Thuja occidentalis*), yellow birch (*Betula alleghaniensis*), red oak, ironwood, white spruce *(Picea glauca*), white pine (*Pinus strobus*) and white birch. Herbaceous vegetation consisted of trillium (*Trillium grandiflorum*) and wood fern (*Dryopteris sp.*).	12.8
Very Shallow, Dry – Fresh: Mixedwood (G019Tt) (Coniferous dominant)	Located in the northern, central and partially in the southern portions of the subject property, is a mixedwood forest area, mostly comprised of coniferous species. The community was dominated by eastern white cedar. Other constituents include American elm (*Ulnus americana*), basswood (*Tilia americana*), white birch, and sugar maple, with sparse occurrences of black ash and tamarack (*Larix laricina*).	8.85
Organic Intermediate Conifer Swamp (G128Tt)	Located in the central area of the on-site wetland, in the central portion of the subject property, is a conifer swamp dominated by very dense growth of eastern white cedar, and balsam fir to a lesser extent. Shrub vegetation was comprised of eastern white cedar with some speckled	1.11

ELC Type	Description	Size (ha)
	alder (*Alnus incana*) and willow species (*Salix sp.)*. Herbaceous growth consisted of some cattails (*Typha sp.*).	
Open Shore Fen (G146S)	Located in the southern portion of the subject property, adjacent to the open water within a bay is an open shore fen dominated by eastern white cedar and herbaceous vegetation.	0.42
Sparse Tree Fen (G136Tt)	Located in the central portion of the subject property is a sparse tree fen. This portion of the wetland was specifically investigated, however, based on aerial imagery and trends in vegetation communities, this fen is likely comprised of stunted eastern white cedar, deciduous shrubs and dense herbaceous vegetation.	0.56

3.6 Wildlife

Wildlife observed on-site and within the study area during field investigations completed in 2021 are summarized in Table C.1 in Appendix C.

4.0 NATURAL HERITAGE FEATURES

Natural heritage features in Ecoregion 5E are defined in the 2020 PPS as “features and areas, including *significant wetlands, significant coastal wetlands, fish habitat, significant habitats of endangered species and threatened species, significant wildlife habitat* and *significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscape of an area”.

4.1 Significant Wetlands and Unevaluated Wetlands

As described in the Natural Heritage Reference Manual (OMNR, 2010), wetlands “mean lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface.” While *significant* in regards to wetlands means “an area identified as provincially significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time.”

No significant wetlands were identified on-site or within the study area during the desktop review or any of the site investigations. As no significant wetlands occur on-site or within the study area, significant wetlands are not evaluated or discussed further in this EIS.

As discussed in Section 3.4, unevaluated wetlands occur in the central portion of the property, directly associated with Palmerston Lake.

Potential impacts to unevaluated wetlands on-site are discussed in Section 6.

4.2 Significant Areas of Natural and Scientific Interest

The MNRF identifies two types of areas of natural and scientific interest (ANSI) in Ontario: life sciences ANSIs typically represent significant segments of Ontario’s biodiversity and natural landscapes, while earth science ANSIs typically represent significant examples of bedrock, fossils or landforms in Ontario (OMNR, 2010).

No ANSI have been identified on-site or adjacent to the site during the desktop review or during site investigations. Therefore, ANSI are not discussed or evaluated further in this EIS.

4.3 Significant Wildlife Habitat

The natural heritage reference manual (OMNR, 2010), in combination with the significant wildlife habitat technical guide (OMNR, 2000) and the significant wildlife habitat ecoregion criterion schedules (OMNRF, 2015) were used to identify and evaluated potential significant wildlife habitat on-site. The significant wildlife habitat is broadly categorized as habitats of seasonal concentration of animals, rare vegetation communities, specialized habitats for wildlife, habitats of species of conservation concern and animal movement corridors. Table C.2, C.3, C.4, C.5 and C.6 in Appendix C, provide the screening rationale for each category of significant wildlife habitat, respectively.

4.3.1 Habitats of Seasonal Concentrations of Animals

Seasonal concentration areas are habitats where large numbers of species congregate at one particular time of the year. The significant wildlife habitat technical guides (OMNR, 2000) and significant wildlife habitat ecoregion criterion schedules (OMNRF, 2015) identify 12 types of seasonal concentration habitats that may be considered significant wildlife habitat. These 12 types of seasonal habitat are presented in Table C.2 in Appendix C, including a brief description of the rationale as to why or why they are not assessed further in this EIS.

Following review of Table C.2 in Appendix C, two *candidate* habitats of seasonal concentration of animals are present on-site, reptile hibernacula and turtle wintering areas. The *candidate* SWH are discussed in detail in the subsections below.

4.3.1.1 Reptile Hibernacula

Candidate reptile hibernacula SWH was identified on-site within the large, fissured rock piles and exposed bedrock outcrops on slopes within the wooded areas.

Specific reptile hibernaculum investigations were not conducted as they were outside of the scope of this EIS. However, two indicator species, eastern gartersnake and northern watersnake, were observed on-site during site investigations, outside of key emerging periods.

The defining criteria for confirmed reptile hibernaculum SWH is the presence of snake hibernacula used by or congregations of a minimum of five individuals of a snake species or; individuals of two or more snake species near potential hibernacula (eg. foundation or rocky slope) on sunny warm days in Spring (Apr/May) and Fall (Sept/Oct) (OMNRF, 2015a).

The subject property contains a mix of suitable reptile hibernaculum habitat including rock piles and slopes with crevices, areas of broken and fissured rock, wetlands, and mixed forests with rock outcrops. As such, it is possible that subject site provides suitable reptile hibernacula habitat.

Impacts to potential reptile hibernacula habitat from the proposed development are discussed in Section 6.

4.3.1.2 Turtle Wintering Area

Candidate turtle wintering areas SWH was identified on-site within the local wetlands.

To evaluate the potential for the local wetlands to provide turtle wintering area SWH, a series of turtle basking surveys were conducted. Turtle wintering areas provide protection for turtle species from winter element and typically consist of permanent water bodies, large wetlands, bogs or fens, with adequate dissolved oxygen, soft substrates and deep water. The defining criteria for confirmed turtle wintering area SWH is the presence of 5 over-wintering midland painted turtles, one or more northern map turtle or one or more snapping turtle within a wetland (OMNRF, 2015a).

Wintering areas may be identified by searching basking areas for congregations of turtles on warm, sunny days during the spring or fall (OMNRF, 2015a). A total of three basking turtle surveys were conducted for the subject property. Table 4.1 below provides a summary of the basking turtle survey results.

Table 4.1 Summary of Turtle Basking Surveys

Location	Species / Highest Number Observed / Date	Confirmed SWH
Wetland	Midland painted turtle / 2 / May 6, 2021	No

Following review of Table 4.1 above, the local wetlands on-site (illustrated on Figure A.5), do not provide *confirmed* turtle overwintering area SWH, as the wetlands do not meet the defining use criteria. As turtle wintering area SWH is not present on-site it is not discussed or evaluated further in this EIS.

4.3.2 Rare Vegetation Communities

Rare vegetation communities in the province are described generally as those with an S1 to S3 ranking by the NHIC, and typically include communities such as sand barrens, alvars, old growth forests, savannahs and tallgrass prairies.

The vegetation communities identified on-site and described in Section 3.4 of this report are not ranked by the NHIC as S1, S2 or S3 and are therefore not considered to be rare vegetation communities. As such, rare vegetation communities are not discussed or evaluated further in this EIS.

4.3.3 Specialized Habitats for Wildlife

Specialized wildlife habitats are microhabitats that provide a critical resource to some groups of wildlife. The significant wildlife habitat technical guide (OMNR, 2000), defines eight specialized habitats that may constitute significant wildlife habitat, these eight types of specialized wild habitat are evaluated in Table C.4 in Appendix C.

Following review of Table C.4 in Appendix C, three *candidate* and one *confirmed* specialized habitats for wildlife are present on-site or within the broader study area: woodland amphibian breeding habitat, wetland amphibian breeding habitat, denning sites for mink, otter, marten, fisher and eastern wolf, and woodland nesting raptor habitat, respectively. The *candidate* and *confirmed* SWH are discussed in detail in the subsections below.

4.3.3.1 Amphibian Breeding Habitat

Candidate woodland amphibian breeding habitat was identified on-site within the forested communities surrounding the local wetland. *Candidate* wetland amphibian breeding habitat was identified on-site within the fens and coniferous swamp. Targeted amphibian breeding surveys were not conducted as they were outside of the scope of this EIS. Spring peepers, green frogs,

northern leopard frogs and wood frogs were all observed during the field investigations. Furthermore, egg masses (species not identified) were observed along the shoreline on the inside of the peninsula. Though these incidental observations do not meet defining use criteria to confirm SWH, they do suggest that the woodlands and wetlands may provide *candidate* amphibian breeding habitat.

4.3.3.2 Woodland Amphibian Breeding SWH

Woodland amphibian breeding habitat provides critically important breeding habitat for the following wildlife species: eastern newt, blue-spotted salamander, spotted salamander, gray treefrog, spring peeper, western chorus frog and wood frog. Woodland amphibian breeding habitat can be located in all forested ecosites.

Based on the description provided in the Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015a), woodland amphibian habitat is considered to be the wetland, plus a 230 m radius of surrounding woodland area.

As targeted surveys were not conducted, it is possible that the woodlands surrounding the wetland may provide *candidate* woodland amphibian SWH. Impacts to woodland amphibian breeding habitat from the proposed development is discussed in Section 6.

4.3.3.3 Wetland Amphibian Breeding SWH

Wetland amphibian breeding habitat provides critically important breeding habitat for the following wildlife species: American toad, spotted salamander, four-toed salamander, blue-spotted salamander, gray treefrog, western chorus frog, northern leopard frog, pickerel frog, green frog, mink frog and bullfrog. Wetland amphibian breeding habitat occurs throughout swamps, marshes, fens, bogs, open aquatic and submerged aquatic habitats.

Based on the description provided in the Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015a), wetland amphibian habitat is considered to be the wetland area and the shoreline.

As targeted surveys were not conducted, it is possible that the on-site local wetlands may provide *candidate* wetland amphibian SWH. Impacts to woodland amphibian breeding habitat from the proposed development is discussed in Section 6.

4.3.3.4 *Candidate* Denning Sites for Mink, Otter, Marten, Fisher, and Eastern Wolf

Species are important fur bearing mammals and specific denning habitat is becoming increasingly scarcer due to development pressures. The presence of one or more active den sites is considered significant under the defining use criteria (OMNRF, 2015).

The subject property meets the defining use criteria in that *candidate* denning habitat may be found in all forested ecosites.

Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) states that otters prefer undisturbed shorelines along water bodies that support productive fish populations with abundant shrubby vegetation and downed woody debris for denning. They often use old beaver lodges or log jams and crevices in rock piles.

A single otter denning site in the form of an old beaver lodge, was observed along the southern shoreline of the peninsula, just south of the local wetland. The den site was located within an undisturbed section of the shoreline encompassed by shrubby vegetation. A single adult otter was observed foraging in the water near the den site, frequently going to-and-from the den to consume fish that it had captured.

The observation of a foraging otter returning to an old beaver lodge suggests that the site may provide *candidate* SWH for denning otter habitat. Confirmation of SWH for denning otters depends on studies being conducted at the time of year when otter are using the denning sites. Studies can be based on observation or from scat and track surveys (OMNRF, 2015).

Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) states that any known active denning site and a 100 m radius around it with the listed species is considered to be significant.

Potential impacts to *candidate* otter denning site habitat SWH are discussed in Section 6.

4.3.3.5 *Confirmed* Woodland Nesting Raptor Habitat

Woodland nesting raptor habitat provides critically important breeding habitat for the following wildlife species: red-tailed hawk, great horned owl, broad-winged hawk, sharp-shinned hawk, merlin, barred owl, red-shouldered hawk, coopers hawk, and northern goshawk. Habitats are often used annually by these species with nests sites being rarely identified. The presence of one or more active nests from species list is considered significant under the defining use criteria (OMNRF, 2015).

The subject property meets the defining use criteria in that candidate woodland nesting raptor habitat may be found in all natural or conifer plantation woodland/forest stands.

While a nest was not actually confirmed, two merlin were observed together within a single tree cavity. Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) states that species such as merlin nest along forest edges sometimes on peninsulas or small off-shore islands. The location of the observed merlin was in the southwestern area of the subject property, within the forested peninsula. The observation of two merlin within a single tree cavity, located within a forested peninsula suggests that SWH for woodland nesting raptor habitat has been *confirmed* for the subject property. Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) states that a 50 m radius around the nest is the SWH for each identified merlin nest.

Potential impacts to *confirmed* woodland nesting raptor habitat SWH are discussed in Section 6.

4.3.4 Habitats of Species of Conservation Concern

Provincial rankings are used by the Natural Heritage Information Centre to set protection priorities for rare species, similar to those described in Section 3.5 above for vegetation communities. Provincial rankings (S-ranks), are not legal designations such as those used to define the various protection statuses of species at risk, they are only intended to consider factors within the political boundaries of Ontario that might influence a particular species abundance, distribution or population trend.

Based on the guidance provided in the Significant Wildlife Habitat Ecoregion Criterion Schedules (MNRF, 2015), when a plant or animal element occurrence is recorded for any species with an S-rank of S1 (extremely rare), S2 (very rare), S3 (rare to uncommon) or SH (historically present), the corresponding vegetation ecosite is considered to provide *candidate* habitat for species of conservation concern and further consideration within the EIS is warranted.

The Significant Wildlife Habitat Ecoregion Criterion Schedules (OMNRF, 2015), provides four general habitat types known to support a wide range of species of conservation concern in Ontario. The four general habitat types for Ecoregion 5E-11 are provided in Table C.5 in Appendix C, including a brief rationale as to why they are or are not considered further in this EIS. Following review of Table C.5 in Appendix C, one habitat of species of conservation concern have been identified on-site; habitat for special concern and rare wildlife species for eastern wood-pewee, red-headed woodpecker, and snapping turtle. The *candidate* SWH are discussed in detail in the subsections below.

4.3.4.1 Special Concern and Rare Wildlife Species SWH

Based on observation data from the field investigations, two species of special concern has been identified on-site or within the broader study area, eastern wood-pewee and red-headed woodpecker. No other species of special concern or rare wildlife species were identified on-site or within the broader study area. NHIC online database have identified one species of special concern to be on-site or within the broader study area; snapping turtle.

The eastern wood-pewee is a small flycatcher bird with an S-rank of S4 (uncommon but not rare) and is listed as a species of special concern in Ontario. Eastern wood-pewee was identified on-site during the site investigations. Eastern wood-pewee is a woodland species that is often found near clearings and edges and they were observed calling on-site during the site investigations. Given the mosaic of mixed woodlands for eastern wood-pewee on-site, there is a high potential for eastern wood-pewee and their habitat to occur on-site. Impacts to *confirmed* eastern wood-pewee habitat from the proposed development are discussed in Section 6.

The red-headed woodpecker is of special concern and ranked as S4B (common to apparently secure) in Ontario. The red-headed woodpecker lives in open woodland and woodland edges, and is often found in parks, golf courses and cemeteries. These areas typically have many dead

trees, which the bird uses for nesting and perching. During one of the site visits, a single red-headed woodpecker was heard calling from outside of the study area. Given the presence of woodland edges with the study area, it is possible that the site may provide *candidate* nesting and foraging habitat for red-headed woodpecker. Potential impacts to red-headed woodpecker from the proposed development are discussed in Section 6.

The snapping turtle is a highly aquatic turtle species with an S-rank of S3 (rare to uncommon) and is listed as a species of special concern in Ontario. The NHIC identified snapping turtle as having occurred within 1 km of the site. Snapping turtles are aquatic generalists, found in a variety of wetlands, water bodies and watercourses. Given the availability of potentially suitable aquatic habitat on-site there is a moderate potential for snapping turtle and its habitat to occur on-site. Potential impacts to snapping turtle from the proposed development are discussed in Section 6.

4.3.5 Animal Movement Corridors

Animal movement corridors are elongated areas used by wildlife to move from one habitat to another and allow for the seasonal migration of animals (OMNRF, 2015). The Significant Wildlife Habitat Ecoregion Criterion Schedules for Ecoregion 5E-11 (OMNRF, 2015), identifies three types of animal movement corridor: amphibian movement corridors, cervid movement corridors, and furbearer movement corridors. As per guidance presented in MNRF, 2015, animal movement corridors should only be identified as significant wildlife habitat when a *confirmed or candidate* significant wildlife habitat has been identified by the MNRF district office or by the regional planning authority.

However, MNRF (2015) also states that all mink or otter den sites identified are to be considered for an animal movement corridor. Defining use criteria (MNRF, 2015) suggests that confirmation depends on studies being conducted at the time of year when mink or otter are using the denning sites. Studies can be based on observation or from scat and track surveys.

Following review of Table C.6 in Appendix C, a single *candidate* animal movement corridor has been identified on-site, otter denning site. The MNRF has not identified any animal movement corridors on the publicly available data sets for wildlife values area (OMNRF, 2020a) or wildlife values site (OMNRF, 2020b). Potential impacts to *candidate* SWH otter movement corridor from the proposed development are discussed in Section 6.

4.4 Fish Habitat

The protection of fish and fish habitat is a federal responsibility and is administered by the Department of Fisheries and Oceans Canada (DFO). Fish habitat as defined in the Fisheries Act (Canada, 1985) means, “spawning grounds and nursery, rearing food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.”

When development is unable to avoid resulting in the harmful alteration, disturbance or destruction of fish habitat from typical project impacts such as temperature change,

sedimentation, infilling, reduction of nutrient and food supply, etc., an authorization under the Fisheries Act is required for the project to proceed.

A fisheries assessment was not conducted as part of this EIS, until such time that a fisheries assessment is completed, Palmerston Lake surrounding the property boundary and local wetlands on-site are assumed to provide fish habitat for both large and small-bodied fish species, respectively. As previously mentioned in Section 3.4, Palmerston Lake has been identified as a lake trout lake – not at capacity. No other species of fish of significant interest have been identified by the township or the county.

As discussed in Section 3.4, no fish SAR have been identified within any permanent waterbody on-site. Potential impacts to fish and fish habitat from the proposed development are discussed in Section 6.

4.5 Species at Risk

The probability of occurrence for species at risk to occur on-site and within the broader study area was determined through the desktop review stage of this EIS, as described in Section 2.1, and through the site specific surveys conducted as part of this EIS, outlined in Section 2.2.

Table C.7 in Appendix C, provides a summary of all species at risk which were determined to have the potential to occur on-site or within the broader study area, their protection status under the provincial Endangered Species Act (Ontario, 2007), their probability of occurrence and a brief rationale of that probability. Impacts to endangered or threatened SAR determined to have a moderate or high potential to occur on-site or within the broader study area are discussed further in Section 6.

5.0 PROPOSED PROJECT

The proposed project assessed for potential impacts on the natural heritage features determined to be present within the broader study area, is the support of a zoning amendment to permit the development of a rural cooperative for the property municipally addressed as 1099B Lafolia Lane.

The proposed plan of a rural cooperative includes the continuation of a currently existing roadway extending to the end of the peninsula and the creation of two new private roadways, providing access to 10 residential cabins, as well as a variety of shared buildings and facilities, occupying approximately 0.75 ha of the existing 3.13 ha property. The proposed plan of the rural cooperative is provided on Figure A.4.

Future components of the proposed project considered in the impact assessment presented in Section 6 include: tree clearing and vegetation grubbing, fill placement and elevation grading, road construction, laneway construction, excavation and pouring of foundations, construction of single family residential cabins and a variety of shared buildings and facilities, installation of septic tanks and general landscaping activities.

The timeline for the proposed project, from lot creation to completion of residential construction is currently unknown. For the purpose of assessing impacts to natural heritage features, it is assumed in this EIS that the creation of individual residential lots will happen in the near-term and will not result in any physical alterations to the natural environment of the site and the broader study area. Future construction of single family residential cottages on each of the lots is assumed to occur over a several year period, and that the construction of any one cottage will be completed such that the duration of any potential impacts on the natural environment during construction will be approximately six months.

6.0 IMPACT ASSESSMENT

Potential impacts to natural heritage features on-site and within the broader study area are assessed for direct, indirect and cumulative effects based on the proposed project outlined in Section 5. Natural heritage features identified in Section 4 of this report as present or likely to be present are discussed in the subsections below.

Potential effects to the natural environment from the proposed development outlined in Section 5 include: vegetation removal, disturbance of the natural soil mantle, increased noise generation, increased human disturbance, increase storm water generation and potentially increased nutrient loading to adjacent surface water features.

6.1 Significant Wildlife Habitat

The potential presence of significant wildlife habitat on-site and within the study area was evaluated in Section 4.3, as a result of this assessment six types of significant wildlife habitat were determined to be present on-site or within the study area: *candidate* reptile hibernacula, *candidate* turtle wintering area, *candidate* woodland amphibian breeding habitat, *candidate* wetland amphibian breeding habitat, *candidate* denning site for otter, *confirmed* woodland nesting raptor habitat, and habitats of special concern and rare wildlife species.

Potential impacts to significant wildlife habitats are discussed in greater detail in the following subsections, while mitigation measures indented to prevent such impacts are presented in Section 7.

6.1.1 *Candidate* Reptile Hibernaculum

Candidate reptile hibernaculum habitat can be found along the slope of the peninsula as it contains a mix of suitable reptile hibernaculum habitat including rock piles and slopes with crevices, areas of broken and fissured rock, wetlands, and mixed forests with rock outcrops.

Potential direct impacts to *candidate* reptile hibernaculum habitat are associated with direct loss of habitat structures, and habitat disturbances resulting in changes to the thermal regime and microclimates. Potential indirect impacts to *candidate* reptile hibernaculum include habitat fragmentation, disruption to interior forest habitat, increase human presence, increased human and wildlife interaction and disturbances, and increased noise levels.

Given the nature of the proposed project, and that no reptile hibernaculum were confirmed through the NHIC database or field visits, the impacts to *candidate* reptile hibernaculum habitat are not anticipated. However, mitigation measures intended to protect potential hibernaculum sites are provided in Section 7.

6.1.2 *Candidate* Woodland Amphibian Breeding Habitat

Candidate woodland amphibian breeding habitat has been identified within the conifer swamp (G128) and the 230 m radius that extends into the adjacent woodland habitat (G019 coniferous and deciduous). Based on the habitat description outlined in the Significant Wildlife Habitat Criteria Schedule (OMNRF, 2015) habitat for woodland breeding amphibians is the wetland area plus a 230 m radius of woodland area adjacent to the wetland. Non-woodland habitat adjacent to the wetlands is not considered SWH.

As no in-water work is proposed as part of the development, potential impacts to *candidate* woodland amphibian breeding SWH are anticipated to be associated with direct impacts to woodland habitat and indirect impacts to wetland habitats. Direct impacts to woodland amphibian breeding SWH is primarily associated with loss of woodland cover and vegetation as a result of the proposed development. Indirect impacts to wetland habitats may include alterations to water quality due to nutrient and sediment loading as well as alterations to the hydrologic regime due to loss of riparian vegetation and increases in impermeable surfaces and increases in storm water runoff.

Other potential impacts include short duration construction impacts, including: heavy machinery encroachment, fill placement, and long-term human disturbance such as noise generation, dumping of refuse and trampling.

Mitigation measures to reduce impacts to *candidate* woodland amphibian breeding habitat SWH are provided in Section 7.

6.1.3 *Candidate* Wetland Amphibian Breeding Habitat

Candidate wetland amphibian breeding habitat on-site is confined to the open shore fen at the entrance of the wetland (G146). As no in-water works is proposed as part of the development and giving consideration to the fact that the wetland breeding habitat is classified as significant solely for the protection of the wetland obligated bullfrog, potential impacts to wetland amphibian breeding SWH are anticipated to be indirect in nature. Indirect impacts may include alterations to water quality due to nutrient and sediment loading and alterations to the hydrologic regime due to increases in impermeable surfaces and stormwater runoff.

Other potential impacts include short duration construction impacts, including: heavy machinery encroachment, fill placement, and long-term human disturbance such as noise generation, dumping of refuse and trampling.

Mitigation measures to reduce impacts to *candidate* wetland amphibian breeding habitat SWH are provided in Section 7.

6.1.4 *Candidate* Denning Site for Otter Habitat

Candidate denning site for otter habitat has been identified within the mixed woodlands (G019 deciduous) along the shorelines within the bay, and the 20 m radius that extends around it into the forested areas (G019 coniferous). Based on the habitat description outlined in the Significant Wildlife Habitat Criteria Schedule (OMNRF, 2015), habitat for otter denning site habitat is the den site plus a 20 m radius of any woodland ecosite areas adjacent to the den site.

As some shoreline work is proposed as part of the development in the form of dock installation, potential impacts to *candidate* denning site for otter SWH are anticipated to be associated with direct impacts to shoreline denning habitat and indirect impacts to aquatic habitats. Direct impacts to *candidate* denning site for otter SWH is primarily associated with shoreline simplification due to clearing, beach development and dock installation, and loss of woodland cover and vegetation as a result of the proposed development. Indirect impacts to aquatic habitats may include alterations to water quality due to nutrient and sediment loading, decrease in composition and abundance of prey species from decreased water quality, habitat fragmentation, as well as increase interactions and disturbances with humans.

Other potential impacts include short duration construction impacts, including: heavy machinery encroachment, fill placement, and long-term human disturbance such as noise generation, dumping of refuse and trampling.

Mitigation measures to reduce impacts to *candidate* denning otter site SWH are provided in Section 7.

6.1.5 *Confirmed* Woodland Nesting Raptor Habitat - Merlin

Confirmed raptor wintering area habitat for merlin, has been identified within the maple wooded area (G018), and the 50 m radius that extends around the identified nest into the forested areas (G019 coniferous and deciduous). Based on the habitat description outlined in the Significant Wildlife Habitat Criteria Schedule (OMNRF, 2015), habitat for merlin nesting SWH is each identified nesting site plus a 50 m radius around the nest into any forested ecosite areas.

As work is proposed within the wooded areas as part of the development in the form of vegetation clearing and construction of residential dwellings, potential impacts to *confirmed* woodland nesting merlin SWH are anticipated to be associated with direct and indirect impacts to life cycle woodland habitat.

Direct impacts to *confirmed* woodland merlin nesting SWH is primarily associated with habitat loss due to woodland clearing and vegetation removal as a result of the proposed development, which has the potential to result in loss of nesting habitat.

Indirect impacts to *confirmed* woodland merlin nesting SWH include habitat fragmentation, increase human presence, increased human and wildlife interaction and disturbances, and

increased noise levels. The Significant Wildlife Habitat Mitigation Support Tool (OMNRF, 2014b) indicates that development in the vicinity of nesting habitat may cause birds to abandon the area, particularly if development increases the level of human activity in the area. Frequent disturbance can lead to nest abandonment.

Other potential impacts include short duration construction impacts, including: heavy machinery encroachment, fill placement, and long-term human disturbance such as noise generation, dumping of refuse and trampling.

As some of the proposed development is to occur within the forested communities adjacent to and within the merlin SWH, any forms of vegetation removal and construction activities have the potential to impact the function of *confirmed* raptor nesting habitat.

However, mitigation measures to protect *confirmed* woodland nesting raptor habitat – merlin, are provided in Section 7.

6.1.6 Habitats of Special Concern and Rare Wildlife Species SWH

Eastern Wood-Pewee

Eastern wood-pewee (*Contupus virens*) is a small, avian insectivore that lives in a variety of deciduous, mixed, and to a lesser extent, coniferous woodland habitat (COSEWIC, 2012a). Adult eastern wood-pewee are grey-olive with pale wing-bars, the breast and sides are slightly darker green than the wings. It is best identified by its three-phrased song, often paraphrased as a whistled ‘pee-ah-wee’ (COSEWIC, 2012a). In Ontario, the eastern wood-pewee is listed as a species of special concern.

Threats to eastern wood-pewee are not well understood however, loss of suitable forest habitat does not appear to be a significant issue across their Canadian breeding range (COSEWIC, 2012a). Furthermore, research indicates that the species is not very sensitive to forest fragmentation effects or forest size (COSEWIC, 2012a). Eastern wood-pewee may be sensitive to human habitation, in Ontario they occur less frequently in woods with surrounding development than those without houses (COSEWIC, 2012a). Other threats to eastern wood-pewee may include changes in the availability of aerial insects, mortality during migration and/or wintering, nest predation and habitat changes due to white-tailed deer browsing (COSEWIC, 2012a).

Impacts to eastern wood-pewee and their habitat on-site from the proposed development is limited to the wooded and forested habitat on-site (ELC Codes G018, and G019 on Figure A.3 in Appendix A), which may provide suitable nesting and foraging habitat. Impacts to eastern wood-pewee habitat may include loss of forest habitat and increased human presence and disturbance.

While the proposed development may result in the loss of suitable habitat on-site, suitable habitat is readily available within the broader study area. Impacts from increased human presence are

anticipated to be negligible given the existing residential dwellings situated along Palmerston Lake shoreline and the availability of suitable habitat in the broader study area.

Eastern wood-pewee were observed during field breeding bird surveys. Eastern wood-pewee were not identified by the NHIC or other online databases.

Mitigation measures intended to prevent negative impacts to nesting and foraging eastern wood-pewee are presented in Section 7.

Red-headed Woodpecker

The red-headed woodpecker (*Melanerpes erythrocephalus*) is a medium-sized bird – about 20 centimetres long – easily recognized for its vivid red head, neck and breast. The rest of the bird is black and white, mostly white underneath and black on top (Ontario, 2019e).

In Ontario, the species' distribution is discontinuous in the southern part of the province, with many gaps between occurrences. It occurs uncommonly at sites on the southern Canadian Shield, near large urban centres, such as Toronto and Hamilton, and in certain intensively farmed areas. The species is a regular breeder, albeit in small numbers, in northwestern Ontario (i.e., Lake of the Woods area) and eastern Ontario, along the Ottawa River Valley. The breeding bird survey shows a significant long-term annual rate of decline of -1.88% per year between 1970 and 2016 for red-headed woodpecker in Canada. Declines have been steepest in Ontario, with a significant decline of -3.42% per year between 1970 and 2016, or -79.8% in total (COSWEIC, 2018). The red-headed woodpecker is listed as a species of special concern in Ontario.

The main threats to red-headed woodpecker are habitat degradation and ecosystem modifications, particularly the loss of standing dead wood critical for nesting, fly catching, and food caching. This is primarily due to suppression of disturbances that may lead to the creation of standing dead wood such as fire, dead wood removal for aesthetic reasons, or through harvesting activities, and other human-driven modifications to the ecosystem that reduce standing dead wood (COSEWIC, 2018).

Impacts to red-headed woodpecker and their habitat on-site from the proposed development are limited to the forest habitat on-site (ELC Codes G018, and G019 on Figure A.3 in Appendix A), which may provide suitable nesting and foraging habitat. Impacts to red-headed woodpecker habitat may include the loss of forest habitat, loss of edge habitat, loss of dead stand perching/nesting trees, increased fragmentation and increased human interaction. While the proposed development will result in the loss of suitable forest habitat on-site, albeit minimal, suitable habitat is readily available within the broader study area. Impacts from increased human presence are anticipated to be negligible given the existing residential dwellings situated along Palmerston Lake shoreline and the availability of suitable habitat in the broader study area.

A single red-headed woodpecker was heard during field investigations, calling from outside the subject property. Red-headed woodpecker were not identified by the NHIC or other online databases.

Mitigation measures intended to prevent negative impacts to nesting and foraging red-headed woodpecker are presented in Section 7.

Snapping Turtle

Snapping turtle is the largest freshwater turtle found in Canada; in central Ontario males average 32 cm in carapace length and have an average mass of 9.3 kg (COSEWIC, 2008). The carapace is keeled and can be brown, black or olive in colour (COSEWIC, 2008). The plastron is cross-shaped and is small, leaving the limbs and sides of the body exposed (COSEWIC, 2008). The head of a snapping turtle is large with a hooked upper jaw, relatively long neck and tail that can be as long as the carapace (COSEWIC, 2008). In Ontario the snapping turtle is listed as a species of special concern.

Threats to snapping turtle are primarily related to their life-history, their slow recruitment, late maturity, long lifespan and high adult survival make them extremely vulnerable to a variety of anthropogenic impacts (COSEWIC, 2008). Short, cool summers also reduce hatching success. In Canada, snapping turtles are most impacted by events that increase adult mortality, such as harvesting of adults, persecution and road mortality (COSEWIC, 2008). Other threats include loss of habitat, environmental contamination and nest predation (COSEWIC, 2008).

As some in-water work is proposed as part of the future development, albeit restricted to installation of docks, potential impacts to snapping turtle and their habitat are anticipated to be indirect in nature.

Potential indirect impacts may include changes to surface water quality due to nutrient and sediment loading, and quantity through increased storm water runoff resulting from an increase in impervious surface area and vegetation loss.

Other potential impacts include short duration construction impacts, including: heavy machinery encroachment, fill placement and long-term human disturbance such as noise generation, dumping of refuse and yard waste and trampling.

Mitigation measures to protect snapping turtle and their habitat from the proposed development are presented in Section 7.

6.2 Animal Movement Corridor

Impacts to *candidate* animal movement corridors (otter) on-site may include a loss of available corridor habitat, impairment to corridor function and increased human-wildlife interactions. As outlined in the SWHMST, if a significant portion of the corridor is impacted by development it can completely disrupt the function of a movement corridor.

However given the nature of the development, residential dwellings within the peninsula at the top of the slope, and the location of the den at the bottom of the slope, it is unlikely that the development will directly impact the function of the *candidate* animal movement corridor. Furthermore, it is unlikely that the any otters occupying the den site would traverse up the slope and across the peninsula to access another area of Palmerston Lake, while it would be more efficient for the otters to utilize the shorelines and open water by swimming around the peninsula.

Impacts to *candidate* animal movement corridor (otter) are anticipated to be minimal and may include increased human-wildlife interactions, and a small loss of deciduous woodland cover.

Mitigation measures for *candidate* animal movement corridor (otter) are provided in Section 7.

6.3 Fish Habitat and Local Wetlands

According to the Provincial Policy Statement (MMAH, 2020), “development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.” Fish habitat as defined in the Fisheries Act (Canada, 1985) means “spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.”

In 2019, changes were made to the Fisheries Act, broadening the protection for fish and fish habitat. Under the new Fisheries Act, protection is afforded to all fish and fish habitat, not just those that support either a recreational, commercial or Aboriginal fishery. Under the Fisheries Act, work that is conducted in or near waterbodies must avoid “the death of fish, other than by fishing” (Canada, 1985). Furthermore, the new Fisheries Act states that work must avoid “the harmful alteration, disruption or destruction (HADD) of fish habitat” (Canada, 1985).

When activities are unable to avoid or mitigate harm to fish or fish habitat from typical project impacts such as temperature change, sedimentation, infilling, reduction of nutrient and food supply, etc., an authorization under Subsection 35 (2) of the Fisheries Act is required for the project to proceed without contravening the Act.

As previously mentioned in section 4.4, the Township of North Frontenac (2017) classifies Palmerston Lake as a ‘lake trout lake - not at capacity.” The Township of North Frontenac (2017) defines ‘lake trout lakes – not at capacity’ as lake trout waters which are considered capable of supporting additional shoreline development (i.e. within 300 m of the shoreline), provided that

special precautions are taken to ensure that maximum containment of phosphorus occurs on the lot except as otherwise permitted in this section.

County of Frontenac Official Plan (2016) states the lake trout lakes are particularly vulnerable to the impacts of human activities including: harvesting, increased phosphorus inputs from cottage septic systems and other sources of nutrient enrichment, acidification, species introductions, and habitat destruction. Development on lake trout lakes may result in habitat degradation, diminished lake trout populations and a lower quality fishing experience.

As the only in-water work anticipated to occur from this development is the installation of docks, harm to the local wetland, fish and fish habitat is anticipated to indirect and minimal.

Potential indirect impacts to surface water features resulting from construction activities and from increased runoff following construction may include: alterations to water quality, increased overland flow and concomitant sediment transport caused by an increase in impervious surface area, as well as increased nutrient loading through both overland and subsurface pathways resulting from septic tanks and landscaping practices.

Mitigation measures intended to protect local wetlands, fish and fish habitat from negative impacts are discussed in Section 7.

6.4 Species at Risk

As outlined in the Endangered Species Act (Ontario, 2007), only species listed as threatened or endangered and their general habitat receive automatic protection. When a species-specific recovery strategy is developed, a specific habitat regulation will be established, which eventually replaces the automatic habitat protection. Species of special concern and their habitat do not receive protection under the ESA.

Potential impacts associated with the proposed project to threatened or endangered species identified as having a moderate or high potential to occur on-site in Section 4.5, are discussed on a species-by-species basis in subsections below.

6.4.1 Eastern Small-footed Myotis

Eastern small-footed Myotis (*Myotis leibii*) is the smallest (typically 3-5 g), insectivorous bat found in Ontario. The fur of an eastern small-footed Myotis is golden-brown in colour, with a distinct black mask across the face. The eastern small-footed Myotis is very similar in appearance to the little brown Myotis, and is distinguishable by their small foot and keeled calcar (Fraser, MacKenzie & Davy, 2007).

The eastern small-footed Myotis is found throughout eastern North America. In Ontario the species has been observed in the areas sough of Lake Superior across to the Ontario-Quebec border (Humphrey, 2017).

Eastern small-footed Myotis overwinter primarily in caves and abandoned mines with low humidity and temperatures and stable microclimates (Humphrey, 2017). In comparison to other Ontario bat species, they are able to tolerate much colder temperatures, drier conditions and draftier locations for hibernating (Humphrey, 2017). During the spring and summer months, they utilize a variety of habitats for roosting, including under rocks or rock outcrops, in buildings, under bridges, or in caves, mines or hollow trees (Ontario, 2019a).

Although the forest habitat on-site does not meet the requirements to support bat maternity colonies, given the availability of habitat and buildings on-site and within the study area, there is a potential for eastern small-footed Myotis to occur on the property, primarily for foraging or non-maternal roosting. Impacts to eastern small-footed Myotis are primarily associated with habitat loss, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect eastern small-footed Myotis from impacts of the proposed development are discussed in Section 7.

6.4.2 Little Brown Myotis

Little brown Myotis (*Myotis lucifugus*) is a small (typically 4-11 g), insectivorous bat. The fur of a little brown Myotis is bi-coloured; fur is a glossy brown with a darker coloured base. The tragus of the Little Brown Myotis is long and thin, with a rounded tip (Fraser, MacKenzie & Davy, 2007).

In Canada, little brown Myotis' occur throughout all of the provinces and territories (except Nunavut), with its range extending south through the majority of the United States as well. In Ontario, the little brown Myotis is widespread in southern Ontario and has been found as far north as Moose Factory and Favourable Lake (Ontario, 2019b).

Little brown Myotis overwinter in caves and abandoned mines, they require highly humid conditions and temperatures that remain above the freezing mark (Ontario, 2019b). During the summer months, maternity colonies are often located in buildings or large-diameter trees. Little brown Myotis roost in trees and buildings. Foraging occurs over water and along waterways, forest edges and in gaps in the forest. Open fields and clearcuts are not typically utilized for foraging (COSEWIC, 2013).

Although the forest habitat on-site does not meet the requirements to support bat maternity colonies, given the availability of habitat and buildings on-site and within the study area, there is a potential for little brown Myotis to occur on the property, primarily for foraging or non-maternal roosting. Impacts to little brown Myotis are primarily associated with habitat loss, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect little brown Myotis from impacts of the proposed development are discussed in Section 7.

6.4.3 Tri-Colored Bat

Tri-colored bat (*Perimyotis subflavos*) is a small (typically 5-7 g), insectivorous bat. The fur is uniformly coloured on the ventral and dorsal sides, however when parted fur shows three distinct

colour bands. The base of the hair is blackish, with a blonde middle and brownish tip. The snout of the tri-coloured bat is also distinct, with swollen bulbous glands present (Fraser, MacKenzie & Davy, 2007).

In Canada, the tri-colored bat has only been recorded in southern parts of Nova Scotia, New Brunswick, Quebec and central Ontario. In Ontario it occurs primarily from the southern edge of Lake Superior across to the Ontario-Quebec border and south (COSEWIC, 2013).

Tri-colored bat overwinter in in caves or mines, and have very rigid habitat requirements; they typically roosting the deepest parts where temperatures are the least variable, and have the strongest correlation with humidity levels and warmer temperatures (COSEWIC, 2013). In the spring and summer, tri-colored bat utilize trees, rock crevices and buildings for maternity colonies. Foraging is mainly done over watercourses and streamside vegetation (COSEWIC, 2013).

Although the woodlands on-site do not meet minimum snag density requirements to support bat maternity colony habitat, given the availability of habitat on-site there is a potential for tri-colored bat to occur on the property, primarily for foraging or non-maternal roosting. Impacts to tri-colored bat are primarily associated with habitat loss, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect tri-colored bat from impacts of the proposed development are discussed in Section 7.

6.5 Cumulative Impacts

Potential cumulative impacts associated with the proposed project include an increase in storm water generation, increases in nutrient loading to aquatic features, and the loss of forest habitat, primarily for avian species.

Cumulative impacts to the natural environment at the site due to increased human presence, increased wildlife and human interaction and increased noise, are expected to be minimal given the existing residential land use and abundant habitat in the surrounding project area.

Cumulative impacts such as those listed above can be mitigated by implementing the proposed setbacks and recommended mitigation measures outlined in Section 7 below.

7.0 RECOMMENDED AVOIDANCE AND MITIGATION MEASURES

The following avoidance and mitigation measures have been recommended by GEMTEC in order to minimize or eliminate potential environmental impacts identified in Section 6. As such, the following avoidance and mitigation measures should be enforced throughout the development through application of Site Plan Controls.

For the purpose of this report, a setback is defined as the minimum required distance between any structure, development or disturbance and a specified line. A buffer, for the purpose of this report, is defined as the area located between a natural heritage feature and the prescribed setback. For the purpose of the following subsections, buffers should be located between natural heritage features and lands subject to development or alteration, be permanently vegetated by native or non-invasive, self-sustaining vegetation and protect the natural heritage feature against the impact of the adjacent land use.

Vegetated buffers, particularly buffers that are vegetated with a mix of grassy herbaceous vegetation and shrubby or woody vegetation are most effective in mitigating impacts associated with anthropogenic activities in adjacent lands (Beacon, 2012).

Based on the Slope Stability Assessment Report, dated June 29, 2021, an Erosion Hazard Limit has been established for the subject property. This limit constitutes a safe setback for any proposed development at the site with respect to slope stability. The report determined that the Erosion Hazard Limit for the slopes along Palmerston Lake will be about 33 metres from the toe of the slope.

Mitigation measures solely for the protection of natural heritage features are well established and commonplace for development projects. However, the nature of the project and physical geography of the site bring forth concerns of slope stability and safety to human life. As such, all setbacks recommended from herein will default to either the Erosion Hazard Limit or standard ecological mitigation measures, whichever is greater and where appropriate.

Furthermore, given the unique geometry of the site, it may not be feasible in all situations to establish a definitive setback as per commonly utilized practices for protection of natural heritage features. But rather a set of guidance conditions that each cottage would need to abide by in siting of the structure location. All guidance conditions and mitigation measures are provided below.

7.1 Unevaluated Wetlands

No negative impacts on the integrity of the unevaluated wetlands are anticipated as a result of the proposed development if all mitigation measures recommended below area enacted and best management practices followed. Wetlands on-site can be protected against potential impacts of the proposed development through the implementation of a construction setback.

Beacon Environmental Review of Ecological Buffers (2012), provides a range for buffer widths to protect various natural heritage features based on the current science. The buffers are presented in a way that determines the risk of not achieving the desired buffer function (i.e. high, moderate and low). The functions analysed include water quantity, water quality, screening or human disturbance/changes in land use, hazard mitigation zone and core habitat protection. Impacts to the local wetlands on-site were identified to include potential impacts to water quality, human disturbance and core habitat protection (*candidate* SWH for breeding woodlands amphibians and *candidate* SWH for breeding wetland amphibians). Wetland buffer widths have a moderate risk of not providing adequate mitigation for water quality impacts at widths equal to or greater than 10 m. Wetland buffer widths have a low risk of not providing adequate mitigation for human disturbance/land use change impacts at widths equal to or greater than 30 m. Wetland buffer widths have a moderate risk of not providing adequate mitigation for core habitat protection at widths greater than 20 m.

In consideration of the local wetland and the nature of the proposed development, a minimum 33 m setback from the local wetlands is recommended. The recommended 33 m setback provides sufficient protection for mitigating water quality impacts and human disturbances as well as providing a safe setback with respect to slope stability. At 33 m, the protection the buffer offers for core habitat protection, falls into the moderate risk of not achieving desired buffer function, however, in conjunction with the prescribed development envelopes, development is not anticipated to negatively impact the core habitat functions of the wetlands and adjacent woodlands. As such a 33 m setback is sufficient to protect core habitat within the local wetlands.

General mitigation measures recommended for the protection of water quality and wetland habitat include:

- Buffers should be comprised of a mixture of native or non-invasive, self-sustaining trees, shrubs and tall grasses.
- All future development and construction activities within the study area, including ditching, culvert installation, erosion and sediment control and storm water management should be completed in accordance with Ontario Provincial Standard Specification 182 and OPSS 805.
- No in-water work should occur between March 15 and June 30 of any year to protect spawning fish habitat adjacent to the development area. All in-water habitat features, including aquatic vegetation, natural woody debris and boulders should be left in their current locations in the near shore area.
- When native soil is exposed, sediment and erosion control work in the form of heavy-duty sediment fencing shall be positioned along the down gradient edge of any construction envelopes adjacent to waterbodies.

- In order to protect fish habitat from contamination, it is recommended that all machinery be maintained in good working condition and that all machinery be fueled a minimum of 33 m from the high water mark.
- Any temporary storage of aggregate material shall be set back from the water's edge by no less than 40 m and be contained by heavy-duty silt fencing.
- Septic systems shall be installed no closer than 33 m from the high water mark of any surface water feature and not located in areas of exposed bedrock.

7.2 Significant Wildlife Habitat

7.2.1 *Candidate* Reptile Hibernaculum

As no excavation of exposed bedrock outcrops is proposed, avoidance and mitigation measures for the protection of *candidate* reptile hibernaculum include raised cottages that would allow the access and egress of reptiles to potential hibernaculum. If raised cottages are not feasible and granular material is required to be placed over top of exposed fracture bedrock then spring emergence surveys shall be completed to confirm the presence or absence of reptile hibernaculum.

7.2.2 *Candidate* Woodland Amphibian Breeding Habitat

The 33 m setback from local wetlands on-site, presented above, is sufficient to protect *candidate* woodland amphibian breeding habitat. Furthermore, the guidelines below for protection of forested habitat ensure that the core forest cover and surrounding summer habitat is maintained, which is important for amphibians moving between habitats throughout the year.

7.2.3 *Candidate* Wetland Amphibian Breeding Habitat

The 33 m setback from local wetlands on-site, presented above, is sufficient to protect *candidate* wetland amphibian breeding habitat.

7.2.4 *Candidate Denning Site for Otter* Habitat

The 33 m setback from local wetlands on-site, presented above, is sufficient to protect *candidate* denning site for otter habitat. Furthermore, the development envelopes and guidelines below for protection of forested habitat and shoreline vegetation ensure that the riparian vegetation habitat is maintained, which is important for the establishment and continuation of otter denning sites.

7.2.5 *Confirmed* Woodland Nesting Raptor Habitat – Merlin

Mitigating the effects of development on merlin habitat involves ensuring that increased human activity does not occur near nests during the nesting season.

To further minimize the impact of the proposed development on merlin habitat, vegetation removal should occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of nesting and foraging merlin and to avoid contravention

of the Migratory Bird Convention Act. If vegetation clearing activities must take place during the aforementioned timing window than a nest survey shall be conducted by a qualified professional.

7.2.6 Habitats of Special Concern and Rare Wildlife Species – Eastern Wood Pewee

Impacts to eastern wood-pewee are primarily concerned with habitat loss and increased fragmentation. The preservation of forested areas presented below and development envelopes are sufficient to protect special concern and rare wildlife habitat (eastern wood-pewee) from large amounts of habitat loss and fragmentation.

To further minimize the impact of the proposed development on eastern wood-pewee habitat, vegetation removal should occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of nesting and foraging eastern wood-pewee and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing activities must take place during the aforementioned timing window than a nest survey shall be conducted by a qualified professional.

7.2.7 Habitats of Special Concern and Rare Wildlife Species – Red-headed Woodpecker

Impacts to red-headed woodpecker are primarily concerned with habitat loss and increased fragmentation. The preservation of forested areas presented below and development envelopes are sufficient to protect special concern and rare wildlife habitat (red-headed woodpecker) from large amounts of habitat loss and fragmentation.

To further minimize the impact of the proposed development on red-headed woodpecker habitat, vegetation removal should occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of nesting and foraging eastern wood-pewee and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing activities must take place during the aforementioned timing window than a nest survey shall be conducted by a qualified professional.

7.2.8 Habitats of Special Concern and Rare Wildlife Species – Snapping Turtle

The 33 m setback presented above, to protect the local wetland on-site (ELC codes G128, G136 and G146) is sufficient to protect special concern and rare wildlife habitat (snapping turtle). Furthermore, the development envelopes on the proposed parcels ensure that forest cover and surrounding summer habitat is maintained, which is important for wetland amphibians and reptiles moving between habitats throughout the year.

7.3 Fish Habitat

No negative impacts on fish or fish habitat are anticipated as a result of this project if all mitigation measures recommended below are enacted and best management practices followed.

The 33 m setback, established to protect the local wetland from development impacts is sufficient to protect fish and fish habitat within the local wetlands on-site, as well as lake trout within Palmerston Lake.

As outlined in the County of Frontenac Official Plan (2016) and Township of North Frontenac (2017), protection management for lake trout lakes – not at capacity, includes: prohibiting the removal of vegetation, require a 30 metre setback for all new buildings, or prohibit the use of fertilizers, and special precautions are to be taken to ensure that maximum containment of phosphorus occurs on the lot.

While vegetation removal is unavoidable, the 33 m setback in conjunction with the development envelopes and guidelines below for protection of forested habitat and shoreline vegetation, ensures that sufficient vegetation remains as to ensure that the proposed project would not contribute to deleterious impacts upon fish and fish habitat.

General mitigation measures recommended for the protection of water quality and fish habitat include:

- Buffers should be comprised of a mixture of native and non-invasive, self-sustaining trees, shrubs and tall grasses.
- All future development and construction activities within the study area, including ditching, culvert installation, erosion and sediment control and storm water management should be completed in accordance with Ontario Provincial Standard Specification 182 and OPSS 805.
- All in-water activities should be conducted in isolation of open or flowing water while maintaining the natural flow of water downstream.
- No in-water work should occur between March 15 and July 15 of any year to protect spawning fish habitat adjacent to the development area. All in-water habitat features, including aquatic vegetation, natural woody debris and boulders should be left in their current locations in the near shore area.
- Ensure all applicable permits for relocating fish, if required, are obtained and relocated any fish that become trapped in the work area.
- Silt fencing should be installed along all setbacks to provide visual demarcation of the setbacks to prevent machinery encroachment and sediment transport.
- Install and maintain effective sediment and erosion control measures before starting work.
- Schedule work to avoid wet, windy and rainy periods.

- When native soil is exposed, sediment and erosion control work in the form of heavy-duty sediment fencing shall be positioned along the down gradient edge of any construction envelopes adjacent to waterbodies.
- Operate machinery on land above the high water mark, in a manner that minimizes disturbance to the slopes of the peninsula.
- In order to protect fish habitat from contamination, it is recommended that all machinery be maintained in good working condition and that all machinery be fueled a minimum of 30 m from the high water mark.
- Any temporary storage of aggregate material shall be set back from the water's edge by no less than 40 m and be contained by heavy-duty silt fencing.
- Best practices for siting of septic systems should be adhered to and be installed by a licences septic system contractor ensuring all applicable regulations are met and required permits obtained.
- Maintain as much permeable surface area as possible in future development plans to limit the generation of stormwater runoff.

7.4 Species at Risk

7.4.1 Eastern Small-footed Myotis, Little Brown Myotis, and Tri-Colored Bat

To protect roosting and foraging bats, tree removal where required should take place outside of the spring and summer active season (typically May 1 to September 1), when bats are more likely to be using forest habitat. If vegetation clearing must be conducted during the spring and summer timing window than a roost survey should be conducted be a qualified professional.

7.5 Wildlife

The following avoidance and mitigation measures are provided in effort to minimize impacts to on-site and off-site wildlife:

- Vegetation removal should occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of migratory birds and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing activities must take place during the aforementioned timing window than a nest survey shall be conducted by a qualified professional.
- As the structure of the forest is extremely important to many species, removal of mature and decadent trees and snags should be avoided.
- Where development within identified SWH is unavoidable, it is suggested to minimize the amount of habitat affected by making the development footprint where it affects the habitat as small as possible and site it at the edge of the habitat to reduce effects from habitat fragmentation.
- Maintain shoreline and riparian vegetation as much as possible in order to maintain integrity of identified SWH.

- Installation of silt fence barriers around the entire construction envelope of each future cottage unit to prohibit the emigration of wildlife into the construction area.
- Cover all stock piled material with a geotextile to prevent turtles from nesting in the material between May 1 and August 1 of any year.
- Perform daily pre-work sweeps of the construction area to ensure no species at risk are present and to remove any wildlife from inside the construction area.
- Should any species at risk be discovered throughout the course of the proposed works, the species at risk biologist with the local MECP district should be contacted immediately and operations modified to avoid any negative impacts to species at risk or their habitat until further direction is provided by the MECP.

7.6 Best Practice Measures for Mitigation of Cumulative Impacts

The following best management practice measures are provided for the mitigation of cumulative impacts resulting from general construction and development activities;

- To protect trees identified to be retained during construction, the Critical Root Zone (CRZ) should be identified and fenced. The CRZ is defined as 10 cm from the base of the tree for every centimetre in diameter of the tree trunk measured at breast height.
- A completion of a Tree Preservation Plan (TPP) should be implemented to maximize tree retention, as not to hinder the ecological function of the on-site forested areas.
- Maintain as much natural vegetation as possible within the riparian area and all slopes to further assist with slope stability.
- Maintain as much permeable surface as possible in future development plans to minimize the generation of storm water runoff.
- Silt fencing should be installed along all setbacks to provide visual demarcation of the setbacks and to prevent machinery encroachment and sediment transport.
- Erosion and sediment control measures should be maintained until all disturbed ground has been permanently stabilized.
- In effort to offset the effect of vegetation clearing, consideration should be given to landscape planting with native tree species indicative of the Great Lakes – St. Lawrence Forest Region, such as white cedar, white spruce, red maple and red oak.

8.0 CONCLUSIONS

The proposed project supported by this EIS is the creation of 10 residential cabins as well as a variety of shared buildings and facilities on an existing 3.13 ha property.

Based on the results of the impact analysis, impacts to the natural environment are anticipated to be minimal. Provided that mitigation measures recommended in Section 7 are implemented as proposed, no significant residual impacts are anticipated from the proposed development.

Following review of the information pertaining to the natural heritage features of the site, the following general conclusions are provided by GEMTEC in regards to the Environmental Impact Statement.

- No significant impacts to natural heritage features identified on-site, including fish habitat, significant wildlife habitat or habitats of species at risk are anticipated as a result of future residential development.
- The proposed project complies with the natural heritage policies of the Provincial Policy Statement.
- The proposed development complies with the natural heritage policies of the County of Frontenac Official Plan.

9.0 LIMITATION OF LIABILITY

This report and the work referred to within it have been undertaken by GEMTEC Consulting Engineers and Scientists Ltd (GEMTEC), and prepared for Craig and Amber Hall and is intended for the exclusive use of Craig and Amber Hall. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and Craig and Amber Hall. Nothing in this report is intended to provide a legal opinion.

The investigation undertaken by GEMTEC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of GEMTEC based on the site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared.

This report has been prepared for the application noted and it is based, in part, on visual observations made at the site, all as described in the report. Unless otherwise stated, the findings contained in this report cannot be extrapolated or extended to previous or future site conditions, or portions of the site that were unavailable for direct investigation.

Should new information become available during future work, including excavations, borings or other studies, GEMTEC should be requested to review the information and, if necessary, re-assess the conclusions presented herein.

We trust this report provides sufficient information for your present purposes. If you have any questions concerning this report, please do not hesitate to contact our office.

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Biologist

Drew Paulusse, B.Sc.
Senior Biologist

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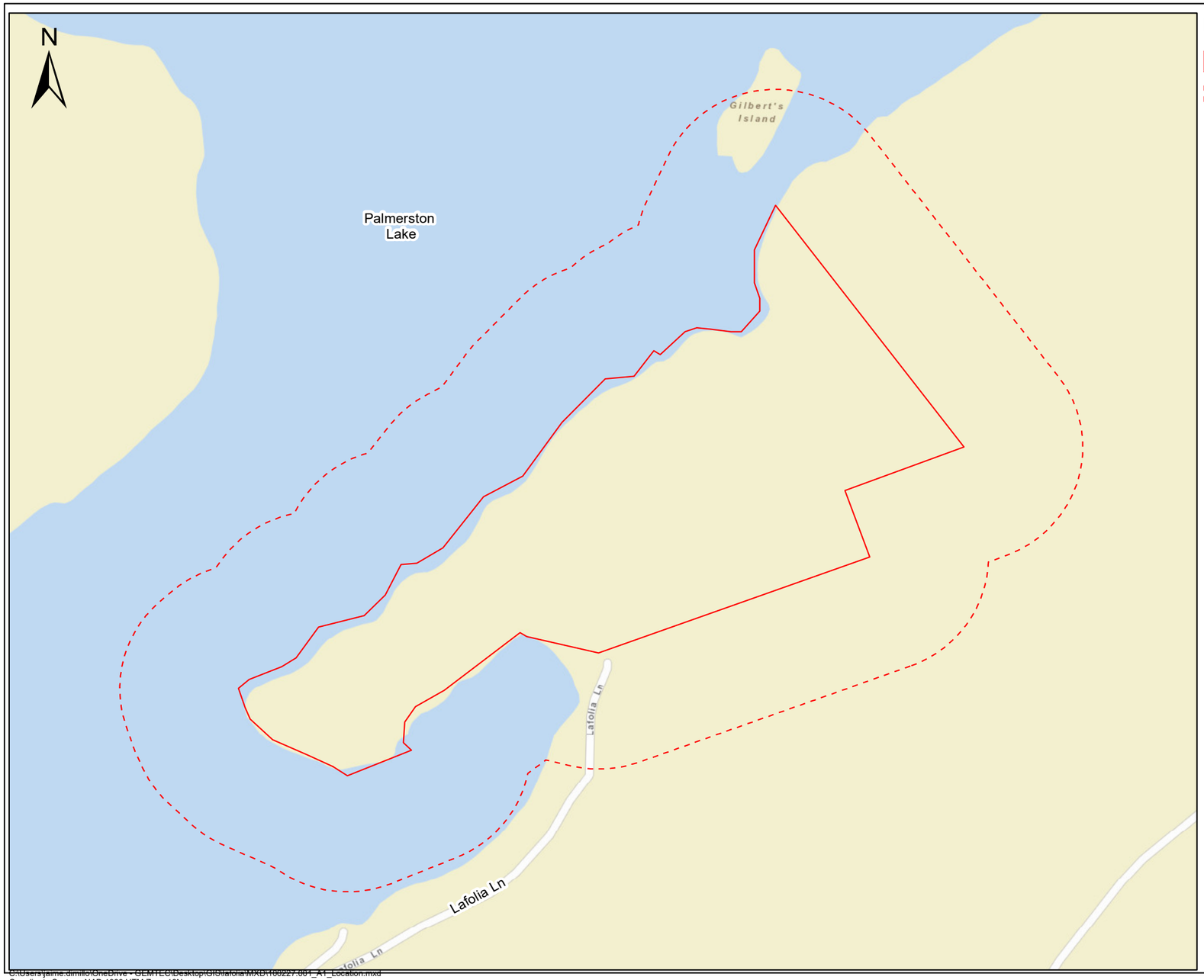
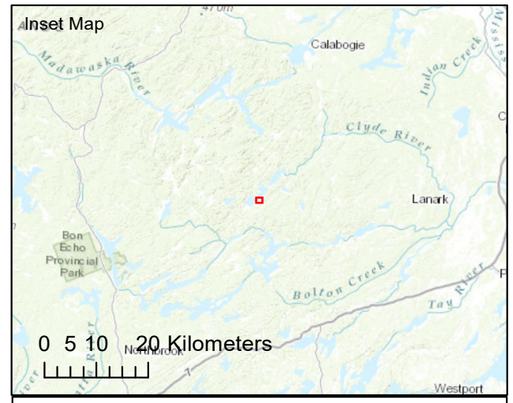
APPENDIX A

Report Figures



Legend

- Property Boundary
- Study Area



Scale
1:4,000
0 25 50 100 150 200 Meters

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Craig and Amber Hall	100227.001

Location
1099B Lafolia Lane,
Palmerston, Ontario

Drwn By:	Chkd By:	
JD	DP	Site Location

Date: August 2021	Rev.	
© Queen's Printer for Ontario	0	Figure A.1

C:\Users\jaime.dimillo\OneDrive - GEMTEC\Desktop\GIS\lafolia\MXD\100227.001_A1_Location.mxd
Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Legend

- Property Boundary
- Study Area
- Local Wetland
- Breeding Bird Survey (100 m radius)

Scale
1:4,000
0 25 50 100 150 200 Meters

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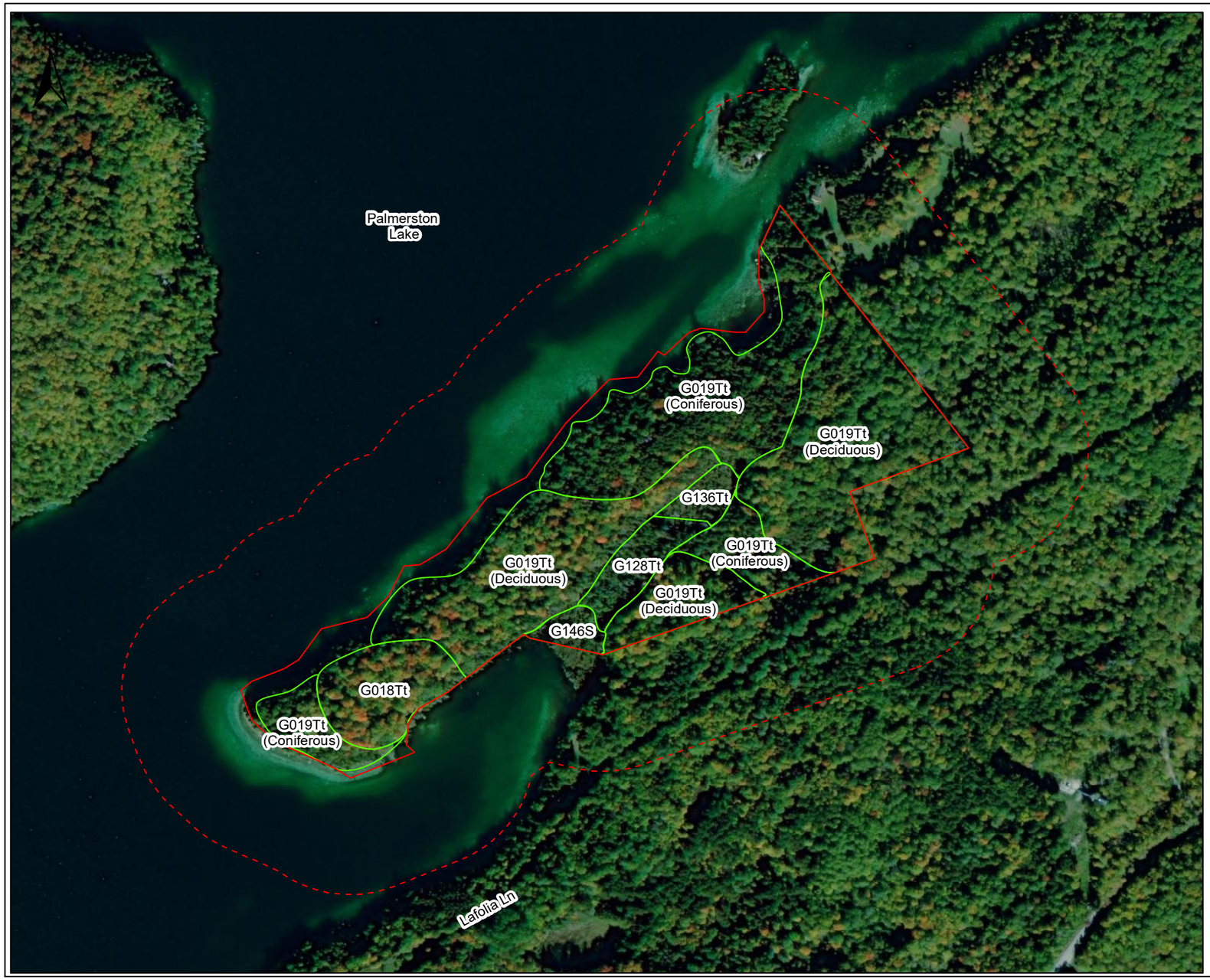
Client:	Project:
Craig and Amber Hall	100227.001

Location
1099B Lafolia Lane,
Palmerston, Ontario

Drwn By:	Chkd By:	
JD	DP	Site Layout

Date: August 2021	Rev.	
	0	Figure A.2

C:\Users\jaime.dimillo\OneDrive - GEMTEC\Desktop\GIS\lafolia\MXD\100227.001_A2_SiteLayout.mxd
Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- Property Boundary
- Study Area
- Vegetation Community

G018Tt = Very Shallow, Dry-Fresh: Maple Hardwood
G019Tt Deciduous = Dry-Fresh: Mixedwood Deciduous Dominant
G019Tt Coniferous = Dry-Fresh: Mixedwood Coniferous Dominant
G128Tt = Organic Intermediate Conifer Swamp
G146S = Open Shore Fen
G136Tt = Sparse Tree Fen

Scale
1:4,000
0 25 50 100 150 200 Meters

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Client: Craig and Amber Hall	Project: 100227.001
Location: 1099B Lafolia Lane, Palmerston, Ontario	
Drwn By: JD / Chkd By: DP	Vegetation Communities
Date: August 2021	Rev. 0
	Figure A.3

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Coordinate System: NAD 1983 UTM Zone 18N
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APPENDIX B

Site Photographs

Site Photograph 1 – Example of mixwood forests area, deciduous dominant.

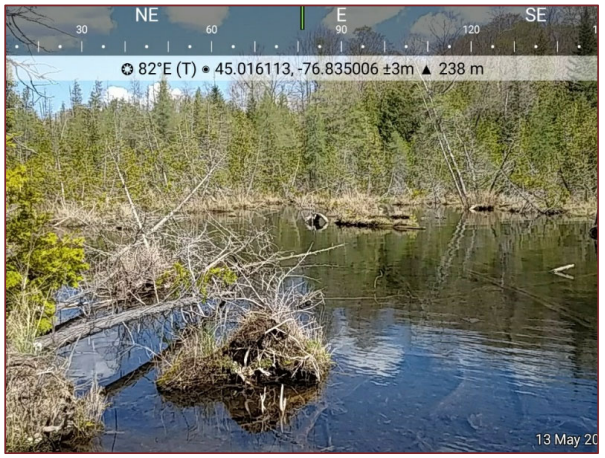
Site Photograph 2 – Example of mixwood forest area, coniferous dominant.

Site Photograph 3 – Hardwood maple forest area.

Site Photograph 4 – Example of steep slope, downwards to Palmerston Lake.

GEMTEC Consulting Engineers and Scientists	Project Environmental Impact Statement Zoning Amendment and Cooperative Development 1099B Lafolia Lane County of Frontenac, Ontario	**ATTACHMENT A** File No. 100227.001	**Site Photographs**

Site Photograph 5 – View of Palmerston Lake from peninsula.



Site Photograph 6 – Open water in bay, leading to shoreline fen.

Site Photograph 7 – Example of fen wetland area.

Site Photograph 8 – Example of coniferous swamp wetland.

GEMTEC Consulting Engineers and Scientists	Project Environmental Impact Statement Zoning Amendment and Cooperative Development 1099B Lafolia Lane County of Frontenac, Ontario	**ATTACHMENT A** File No. 100227.001	**Site Photographs**

Site Photograph 9 – Exposed sand and gravel at point of peninsula.

Site Photograph 10 – Example of exposed bedrock.

Site Photograph 11 – Old beaver lodge, c*andidate* otter denning site.

Site Photograph 12 – Example of dense vegetation along shoreline.

GEMTEC Consulting Engineers and Scientists	Project Environmental Impact Statement Zoning Amendment and Cooperative Development 1099B Lafolia Lane County of Frontenac, Ontario	**ATTACHMENT A** File No. 100227.001	**Site Photographs**

APPENDIX C

Report Summary Tables

TABLE C.1
SUMMARY OF WILDLIFE OBSERVED ON-SITE AND ADJACENT TO SITE

Common Name	Scientific Name	S-Rank	Evidence
Avian Species			
American crow	*Corvus brachyrhynchos*	S5B	Heard calling
American goldfinch	*Spinu tristis*	S5B	Heard calling
Black-and-white warbler	*Mniotilta varia*	S5B	Heard calling
Black-capped chickadee	*Poecile atricapillus*	S5	Heard calling
Black-throated green warbler	*Setophaga virens*	S5B	Heard calling
Blue jay	*Cyanocitta cristata*	S5	Heard calling
Common grackle	*Quiscalus quiscula*	S5B	Heard calling, observed perched
Common loon	*Gavia immer*	S5B, S5N	Heard calling
Common raven	*Corvus coraz*	S5	Heard calling
Common yellowthroat	*Geothlypis trichas*	S5B	Heard calling
Eastern phoebe	*Sayornis phoebe*	S5B	Heard calling
Eastern wood-pewee	*Contopus virens*	S4B	Heard calling
great blue heron	*Ardea herodias*	S4	Observed foraging
Great-crested flycatcher	*Myiarchus crinitus*	S4B	Heard calling
Merlin	*Falco columbarius*	S5B	Observed on-site
Northern flicker	*Colaptes auratus*	S4B	Heard calling, observed foraging
Northern waterthrush	*Parkesia noveboracensis*	S5B	Observed on-site
Ovenbird	*Seiurus aurocapilla*	S4B	Heard calling
Red-breasted merganser	*Mergus serrator*	S4B, S5N	Observed near shoreline with brood
Red-breasted nuthatch	*Sitta canadensis*	S5	Heard calling
Red-headed woodpecker	*Melanerpes erythrocephalus*	S4B	Heard calling off-site
Red-eyed Vireo	*Vireo olivaceus*	S5B	Heard calling
Rose-breasted grosbeak	*Pheucticus ludovicianus*	S4B	Heard calling
Ruffed grouse	*Bonasa umbellus*	S4	Observed foraging
Scarlet tanager	*Piranga olivacea*	S4B	Heard calling
Song sparrow	*Melospiza melodia*	S5B	Heard calling
Veery	*Catharus fuscenscens*	S4B	Heard calling
White-breasted nuthatch	*Sitta carolinensis*	S5	Heard calling
Winter wren	*Troglodytes hiemalis*	S5B	Heard calling
Yellow-rumped warbler	*Setophaga coronata*	S5B	Heard calling
Yellow warbler	*Setophaga petechia*	S5B	Heard calling
Yellow-bellied sapsucker	*Sphyrapicus varius*	S5B	Heard calling and drumming
Mammalian Species			
Eastern chipmunk	*Tamia striatus*	S5	Observed on-site
Eastern gray squirrel	*Sciurus carloinensis*	S5	Observed on-site
Red squirrel	*Tamiasciurus hudsonicus*	S5	Observed on-site
River otter	*Lontra canadensis*	S5	Observed foraging and possible bedding area
White-tailed deer	*Odocoileus virginianus*	S5	Observed on-site
Amphibian Species			
Green frog	*Lithobates clamitans*	S5	Heard calling
Northern leopard frog	*Lithobates pipiens*	S5	Heard calling
Spring peeper	*Pseudacris crucifer*	S5	Heard calling
Wood frog	*Lithobates sylvaticus*	S5	Heard calling
Reptilian Species			
Eastern gartersnake	*Thamnophis sirtalis sirtalis*	S5	Observed on-site
Midland painted turtle	*Chrysemys picta marginata*	S4	Observed on-site
Northern watersnake	Nerodia sipedon sipedon	S5	Observed on-site

Notes:
Subnational Conservation Status Ranks:

S1 - Critically Imperilled, at very high risk of extirpation, very few populations or occurrences or very steep population decline

S2 - Imperiled, at high risk of extirpation, few populations or occurrences or steep population decline

S3 - Vulnerable, at moderate risk of extirpation, relatively few populations or occurrences, recent and widespread population decline

S4 - Apparently Secure, at a family low risk of extirpation, many populations or occurrences, some concern for local population decline

S5 - Secure, at very low or no risk of extirpation, abundant populations or occurrences, little to no concern for population decline

Qualifiers:
S#B - Conservation status refers to the breeding population of the species
S#N -Conservation status refers to the non-breeding population of the species

S#M - Migrant species, conservation status refers to the aggregating transient population of the species

TABLE C.2
SCREENING RATIONALE FOR HABITATS OF SEASONAL CONCENTRATION AREAS

Wildlife Habitat	Further Considered in EIS	Rationale
Waterfowl Stopover and Staging Areas: Terrestrial	No	No suitable habitat located on-site or within the study area to support terrestrial colonial bird nesting.
Waterfowl Stopover and Staging Areas: Aquatic	No	Suitable habitat may be present on-site with the Open Shore Fen (G146S), which may support aquatic colonial bird nesting. Only one wild life indicator species, red-breasted merganser, was observed. However, SWH defining criteria was not met as 100 or more individuals were not observed.
Shorebird Migratory Stopover Area	No	No suitable habitat located on-site or within the study area to support waterfowl stopover and staging areas.
Raptor Wintering Area	No	Although suitable forest habitat is present on-site in the Mixedwood (G019Tt) communities, the site does not meet the SWH defining criteria as the Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) state there must be a combination of meadow/field and forest/woodland ecosites. No suitable meadow/field ecosites are present within the subject property or study area.
Bat Hibernacula	No	Cave and crevice habitat is not present on-site or within the study area.
Bat Maternity Roost Colonies	No	Bat maternity colony surveys were outside of the scope of work for this EIS. Candidate bat maternity colony areas have not been identified within the woodlands of subject property and study area.
Turtle Wintering Areas	Yes	Suitable habitat for turtle wintering includes the on-site local wetland within the central portion of the subject property, which is directly connected to Palmerston Lake. The local wetland comprised of ecosites conifer swamp (G128Tt) and open shore fen (G146S), as well as Palmserston Lake may provide adequate depth and/or permanency to provide suitable protection from the winter elements.
Snake Hibernacula	Yes	Large rock piles and exposed bedrock outcrops on slopes were observed on-site. Two indicator species, eastern gartersnake and northern watersnake were observed on-site, outside of spring emergence. No talus, rock barren, cave and alvar habitats present on-site.
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)	No	No suitable habitat on-site to support bank and cliff colonially nesting habitat.
Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)	No	Suitable habitat may be present on-site to support tree and shrub colonial nesting habitat. No nests nor nesting pairs were observed. Typically sites are only known colony in area and are used annually.
Colonial - Nesting Bird Breeding Habitat (Ground)	No	No suitable rocky island or peninsula habitat to support ground colonial nesting habitat.
Deer Yarding Areas	No	Based on review of publically available data from the OMNRF on Land Information Ontario Geo-hub (OMNRF, 2020), no deer yarding areas have been identified on-site nor within the broader study area.

TABLE C.3
SCREENING RATIONALE FOR RARE VEGETATION COMMUNITIES

Specialized Wildlife Habitat	Further Considered in EIS	Rationale
Beach/Beach Ridge/Bar/Sand Dunes	No	Defining ELC ecosites not present on-site or within study area.
Shallow Atlantic Coastal Marsh	No	Defining ELC ecosites not present on-site or within study area.
Cliffs and Talus Slopes	No	Defining ELC ecosites not present on-site or within study area.
Rock Barren	No	Defining ELC ecosites not present on-site or within study area.
Sand Barren	No	Defining ELC ecosites not present on-site or within study area.
Alvar	No	Defining ELC ecosites not present on-site or within study area.
Old Growth Forest	No	Defining ELC ecosites not present on-site or within study area.
Bog	No	Defining ELC ecosites not present on-site or within study area.
Tallgrass Prairie	No	Defining ELC ecosites not present on-site or within study area.
Savannah	No	Defining ELC ecosites not present on-site or within study area.
Rare Forest: Red Spruce	No	Defining ELC ecosites not present on-site or within study area.
Rare Forest: White Oak	No	Defining ELC ecosites not present on-site or within study area.

TABLE C.4
SCREENING RATIONALE FOR SPECIALIZED WILDLIFE HABITATS

Specialized Wildlife Habitat	Further Considered in EIS	Rationale
Waterfowl Nesting Area	No	No suitable combination of wetland and upland habitat is present on-site to support waterfowl nesting area.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	No	While potentially suitable habitat is present in the study area, no bald eagle or osprey nests were observed on-site or in study area.
Woodland Nesting Raptor Habitat	Yes	Site provides suitable forest habitat for woodland raptor nesting. A pair of merlins were obserevd within a sinlge nest site within a tree cavity during the site investigations. Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) states that a 50m radius around the nest is the SWH for each identified merlin nest.
Turtle and Lizard Nesting Areas	No	The exposed sand and gravelly area located at the very tip of the pennisula in the southwest area of the subject property may provide suitable nesting habitat for turtles. Neither nesting turtles nor lizards were observed during the field investigations. No nests, evidence of nests, nor predation of turtle nests were observed within the exposed sandy area.
Seeps and Springs	No	No seeps or spring were identified on-site during the site investigations.
Aquatic Feeding Habitat	No	Suitable forest habitat adjacent to water may be present on-site. MRNF has not identified any aquatic feeding habitat on-site.
Mineral Licks	No	No groundwater upwelling or seepage areas identified on-site during the site investigations.
Denning Sites for Mink, Otter, Marten, Fisher and Eastern Wolf	Yes	A single otter denning site, situated within the bay just south of the wetland was identified on-site during the site investigations. Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) states that otters prefer undisturbed shorelines along water bodies that support productive fish populations with abundant shrubby vegetation and downed woody debris for denning. Furthermore, the otter was observed to utililizing an old beaver lodge.
Woodland Amphibian Breeding Habitat	Yes	The woodlands adjacent to the local wetland located on site: conifer swamp (Ecosite 128), tree fen (Ecosite 136), and open shore fen (Ecosite 146) provide suitable amphibian breeding habitat.
Wetland Amphibian Breeding Habitat	Yes	Identified wetland; open shore fen (Ecosite 146) is considered to provide suitable wetland amphibian breeding habitat.
Mast Producing Areas	No	While defining ELC ecosites are present on-site and within study area, with red oaks and American beech being present, the required high component of greater than 50% of mast producing tree species greater than 40-65cm diameter at breast height is not present.

TABLE C.5
SCREENING RATIONALE FOR HABITAT FOR SPECIES OF CONSERVATION CONCERN

General Habitats of Species of Conservation Concern	Further Considered in EIS	Rationale
Marsh Breeding Bird Habitat	No	The local wetlands do not provide appropriate habitat for the majority of listed marsh breeding bird species.
Open Country Breeding Bird Habitat	No	No suitable meadow habitat on-site to support open country bird breeding due to recent (< 5 years) agricultural disturbances.
Shrub/Early Successional Breeding Bird Habitat	No	Candidate early successional breeding bird habitat typically includes fallow fields transitioning to early successional forest habitats that are > 30 ha but have not been actively used for farming. No meadow habitat is present on-site to support successional breeding bird habitat.
Special Concern and Rare Wildlife Species	Yes	Review of the NHIC Make a Map indicates that common five-lined skink (southern shield population), and snapping turtle, both species of special concern have been observed within 1km of the site. Eastern wood-pewee was detected on-site during site investigations. Red-headed woopecker was heard calling from off-site.

TABLE C.6
SCREENING RATIONALE FOR ANIMAL MOVEMENT CORRIDORS

General Habitats of Species of Conservation Concern	Further Considered in EIS	Rationale
Amphibian Movement Corridor	No	No amphibian movement corridors have been identified on-site during the site investigation, nor has it been identified by MNRF mapping.
Cervid Movement Corridors	No	No cervid movement corridors have been identified on-site during the site investigation, nor has it been identified by MNRF mapping.
Furbearer Movement Corridor	No	A single denning site for otter has been identified on-site.Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) indicates that all otter den sites identified are to be considered for an animal movement corridor.

TABLE C.7
SCREENING RATIONALE FOR POTENTIAL SPEICES AT RISK ON-SITE OR WITHIN STUDY AREA

Species	ESA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Avian					
Bald Eagle	Special Concern	Confirmed nest at Shirley's bay since 2012.	Nest in mature forests near open water.	Low	While forest habitat is present adjacent to open water, no bald eagle nests were observed during the site investigations.
Bank Swallow	Threatened	12 confirmed, 2 probable and 8 possible nests in recent OBBA.	Colonial nester, burrows in eroding silt, to sand banks, sand pit walls, etc.	Low	No suitable sand banks, pit walls or cliff walls to support bank swallow nesting.
Barn Swallow	Threatened	33 confirmed, 2 probable, and 3 possible nests in recent OBBA.	Nests in barns and other semi-open structures. Forages over open fields and meadows.	Low	No suitable nesting structures on-site, potentially suitable open field or meadow foraging habitat present on-site. Species was not observed on-site during investigation nor through NHIC or other online databases.
Bobolink	Threatened	Widespread in the Ottawa region, confirmed and probable nests found in 39 or 40 local atlas squares during recent OBBA.	Nests in dense tall grass fields and meadows, low tolerance for woody vegetation.	Low	Potentially suitable grassland habitat is not present within study area.
Canada Warbler	Special Concern	1 confirmed, 2 probable, 6 possible nests during recent OBBA. No critical habitat identified in region.	Prefers wet forests with dense shrub layers	Low	Preferred wet forest habitat is not present on-site.
Cerulean Warbler	Threatened	No nests reported during recent OBBA. SARO and SARA range maps include part of Ottawa.	Prefers mature deciduous forest habitat.	Low	Preferred mature deciduous forest habtiat is not present on-site or within study area.
Chimney Swift	Threatened	3 confirmed, 2 probable, and 11 possible nests in recent OBBA.	Nests in traditional-style open brick chimneys.	Low	Suitable nesting structures are not present on-site or within the broader study area.
Common Nighthawk	Special Concern	6 probable, 5 possible nests reported in recent OBBA. No critical habitat identified in Ottawa region.	Nests in a variety of open sites: beaches, fields and grave rooftops.	Low	Species known to nest in gravel and rocky areas such as quarries, gravel pits and bedrock outcrops. Species was not observed on-site during investigation nor through NHIC or other online databases.
Eastern Meadowlark	Threatened	Sporadic occurrences in Ottawa region, more common in rural areas with pasture or fallow fields.	Nests and forages in dense tall grass fields and meadows, higher tolerance to woody vegetation.	Low	Potentially suitable grassland habitat is not present within study area.
Eastern Whip-poor-will	Threatened	Primary breeding range located east, west and south of the Precambrian shield. 7 probable and 10 possible nests in recent OBBA. Critical habitat tentatively identified in 4 squares in western Ottawa.	Nests on the ground in open deciduous or mixed woodlands with little underbrush, and bedrock outcrops.	Low	No suitable habitat occurs on-site or within study area.
Eastern Wood-Pewee	Special Concern	4 possible, 15 probable and 19 confirmed nests in recent OBBA for Ottawa area	Woodland species, often found near clearings and edge habitat.	High	Woodland habitat on-site and adjacent properties may provide suitable habitat for eastern wood-pewee. Species was observed on-site during investigations.
Golden Eagle	Endangered	Migrant only in Ottawa area.	Nests on remote, bedrock cliffs, overlooking large burns, lakes or tundras	Low	Suitable nesting habitat is not present on-site.
Golden-winged Warbler	Special Concern	1 confirmed, 1 probable nest in recent OBBA. Critical habtiat identified in Quebec, northwest of Ottawa.	Ground nesting, edge species. Breeds in successional scrub habitats surrounded by forests.	Low	Preferred scrub habitat is not present on-site or within the study area.
Evening Grosbeak	Special Concern	5 confirmed, 6 probable, 8 possible nests in recent OBBA.	Nests in trees or large shrubs, preferrence to large coniferous forests, will use deciduous. Overwinters in Ottawa.	Low	Suitable habitat does not occur on-site.
Henslow's Sparrow	Endangered	No nests in recent OBBA.	Prefers open, moist, tallgrass fields.	Low	Preferred grassland habitat is not present on-site nor within the study area.
Loggerhead shrike	Endangered	1 possible nest in recent OBBA. Critical habitat in Montague Township, however no confirmed nests from MNRF since 2002.	Preferes grazed pastures with short grass and scattered shrubs, especially hawthorn.	Low	Preferred pasture habitat and shrub vegetation does not occur on-site.
Olive-sided Flycatcher	Special Concern	1 probable, 1 possible nest in recent OBBA.	Forest edge species, forages in open areas from high vantage points in trees.	Low	Site may have appropriate forest edge habitat and woodlands adjacent to wetlands. Species was not observed on-site during investigation nor through NHIC or other online databases.
Peregrine Falcon	Special Concern	1 confirmed nest in recent OBBA and second nest established in 2011 in the Ottawa downtown.	Nests on cliffs near water and on more anthropogenic structures such as tall buildings, bridges, and smokestacks.	Low	Site lacks suitable nesting structure for peregrine falcon.
Red Knot	Endangered	Migrant only in region, found along Ottawa River shorelines, and area lagoons,	Nests in the far north, migrant along the shorelines and lagoons of the Ottawa River.	Low	Site does not provide suitable habitat for migrant red knot.
Red-headed Woodpecker	Special Concern	1 confirmed, 1 probable and 1 possible during recent OBBA. Nesting pair reported from village of Constance Bay in recent years.	Prefers open deciduous woodlands.	Moderate	Preferred woodland habitat is may be present on-site. A single specimen was heard calling from outside of the subject property.
Rusty Blackbird	Special Concern	No nests in recent OBBA. Primarily observed during migration only.	Wet wooded or shrubby areas (nests at edges of Boreal wetlands)	Low	No boreal wetlands present on-site or in study area.
Short-eared Owl	Special Concern	1 confirmed, 2 probable, 2 possible nests in recent OBBA.	Ground nester, prefers open habitats, fields and marshes.	Low	Suitable open field not present on-site.
Wood Thrush	Special Concern	5 possible, 15 probable, and 16 confirmed nests in recent OBBA for Ottawa area.	Prefers deciduous or mixed woodlands.	Low	Suitable woodland habitat is present on-site. Species was not observed on-site during investigation nor through NHIC or other online databases
Mammalian					
Eastern small-footed Myotis	Endangered	Rare throughout its range. Historical records in downtown Ottawa.	Roosts in rock crevices, barns and sheds. Overwinters in abandoned mines. Summer habitats are poorly understood in Ontario, elsewhere prefers to roost in open, sunny rocky habitat and occasionally in buildings (Humphrey, 2017).	Moderate	Potentially suitable anthropogenic stuctures adjacent to site. Potential summer habitat present within study area.
Little Brown Myotis	Endangered	Various sites in central and western parts of the Ottawa area. No critical habitat (hibernacula) identified in Ottawa to date.	Maternal colonies known to use buildings, may also roost in trees during summer. Affinity towards anthropogenic structures for summer roosting habitat and exhibit high site fidelity (Environment Canada, 2015).	Moderate	Potentially suitable anthropogenic stuctures adjacent to site. Potential summer habitat present within study area.
Northern myotis (Northern Long-eared Bat)	Endangered	Historical records in downtown Ottawa, more recently in sites to east (Orleans, Clarence-Rockland). No critical habitat (hibernacula) identified in Ottawa to date. Ottawa and region is at southern most limit of range.	Occurs throughout eastern North America in associated with Boreal forests. Roosts mainly in trees, occasionally anthropogenic structures during summer (Environment Canada, 2015). Overwinters in caves and abandoned mines.	Low	Species affinity is for Boreal forests and species rarely rosots in anthropogenic structures.

TABLE C.7
SCREENING RATIONALE FOR POTENTIAL SPEICES AT RISK ON-SITE OR WITHIN STUDY AREA

Species	ESA Status	Regional Distribution	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Tri-colored Bat	Endangered	Provincially Uncommon, only 26 documented occurrences in Ontario from pre-1980 to present (MNRF, 2016). Unknown distribution in Ottawa; historical records from sites in urban Ottawa and Lanark County.	Roosts in trees, rock crevices and occasionally buildings during summer. Overwinters in caves and mines.	Moderate	Potentially suitable anthropogenic stuctures adjacent to site. Potential summer habitat present within study area.
Reptilian					
Blanding's Turtle	Threatened	Provinical range extends from Manitoulin Island south and east. Scattered occurrence records in central Ontario. Scattered throughout Ottawa and National Capital Region, with numerous sites in western hald of region. Critical habitat present in Ottawa.	Inhabits quiet lakes, streams and wetlands with abundant emergent vegetation. Frequently occurs in adjacent upland forests.	Low	While suitable wetland habitat may be present in study area, no Blanding's turtles were observed during field investigations. NHIC nor any other online databases indicates the presence of Blanding's turtles.
Common Five-Lined Skink (Southern Shield Population)	Special Concern	Limited to two regions in Ontario; along the southern edge of the Canadian Shield from Georgian Bay eastward to Leeds and Grenville County, and near the shores of Lakes Erie, St. Clair, and Huron.	Strong preference for rocks, especially those on top of exposed bedrock outcrops, with minimal canopy cover.	Low	Exposed rock outcrops present within subject property, however, rocky areas are shaded by full canopy cover. NHIC online database indicates presence of species within 1km2 grids surrounding the site.
Eastern Musk Turtle	Special Concern	In Canada, the Eastern Musk Turtle is found mostly along the southern edge of the Canadian Shield in Ontario and Quebec.	Ponds, lakes, marshes and rivers that are generally slow-moving, have abundant emergent vegetation and muddy bottoms that they burrow into for winter hibernation.	Low	While suitable wetland habitat may be present in study area, no eastern musk turtles were observed during field investigations. NHIC nor any other online databases indicates the presence of eastern musk turtles.
Northern Map Turtle	Special Concern	Ottawa River	Inhabits rivers and lakeshores. In winter, hibernate on the bottom of deep, slow-moving sections of river.	Low	Palmerston Lake may provide suitable habitat for species. Species was not observed on-site during investigation nor through NHIC or other online databases
Snapping Turtle	Special Concern	Widespread and abundant in Ottawa and surrounding region.	Highly aquatic species, found in a wide variety of wetlands, water bodies and watercourses.	Moderate	According to the NHIC, Snapping Turtle is known to occur within the general area. Snapping turtle were not obserevd on-site during the site investigaitons.
Gray Ratsnake (Frontenac Axis Population)	Threatened	There are two widely separated populations in Ontario: the Carolinian in southwestern Ontario and the Frontenac Axis in southeastern Ontario.	The Frontenac Axis population requires a variety of habitat types including deciduous forests, wetlands, lakes, rocky outcrops and agricultural fields.	Low	Site does not provide suitable habitat for gray ratsnake. Species was not observed on-site during investigation nor through NHIC or other online databases
Plants					
American Ginseng	Endangered	Critical habitat broadly identified in the Ottawa area. Specific locations are confidential.	Rich, moist, relatively mature deciduous forests.	Low	Suitable habtiat does not occur on-site.
Butternut	Endangered	Range is confined to eastern and southern Ontario. Widespread in Ottawa and region.	Inhabits a wide range of habitats including upland and lowland deciduous and mixed forests.	Low	The site is not in an open or regenerative state, to provide suitable habitat. No specimens observed on-site during site investigations.
Lichens					
Pale-bellied Frost Lichen	Endangered	Historical records in downtown area (extirpated locally). No critical or regulated habtiat identified in Ottawa.	Grows on the bark of hardwood trees such as white ash, black walnut, American elm and ironwood. Can also be found growing on fence posts and boulders.	Low	Species believed to be extirpated from the Ottawa area.
Insects					
Bogbean Buckmoth	Endangered	Richmond Fen	Preferred food plant is bog bean, present in a variety of wetlands including bogs, swamps and fens.	Low	Preferred wetland habitat is not present on-site.
Gypsy Cuckoo Bumble Bee	Endangered	Historic occurrences only. Range in Ontario uncertain.	Inhabits a wide range of habitats: open meadows, agricultural and urban areas, boreal forests and woodlands.	Low	Currently the only known population is in Pinery Provincial Park
Monarch Butterfly	Special Concern	Widespread in the region	Caterpillars require milkweed plants confined to meadow and open areas. Adult butterflies use more diverse habitat with a variety of wildflowers	Moderate	Potentially suitable foraging habitat for monarch butterflies occurs on-site.
Mottled Duskywing	Endangered	Constance Bay area, Burnt Lands Alvar	Larval food plant (New Jersey Tea) found in sandy areas and alvars.	Low	Sandy areas and alvars not present in the study area.
Nine-spotted Lady Beetle	Endangered	Historically present but no reports in Ontario since mid-1990s	Habitat generalist	Low	No recent occurrence reports in the area, thought to be locally extirpated.
Rusty-patched Bumble Bee	Endangered	Historic records in Ottawa and Gatineau	Habitat generalist	Low	Currently the only known population occurs in Pinery Provincial Park.
Traverse Lady Beetle	Endangered	Unknown in Ottawa region. No	Habitat generalist	Low	No new records of traverse lady beetle in Ontario, species thought to be
West Virginia White Butterfly	Special Concern	Unknown. No NESS or NHIC records. SARO range map includes Ottawa.	Requires mature moist deciduous woods with larval host plant toothwort.	Low	Necessary vegetation and toothwort plant not present on-site or within study area.
Yellow-banded Bumble Bee	Special Concern	Unknown. Historic occurrences and a few recent occurrences in Eastern Ontario/Western Quebec region.	Habitat generalist; mixed woodlands, variety of open habitat	Moderate	Potentially suitable foraging habitat for yellow-banded bumble bee occurs on-site.

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June 29, 2021 File: 100227.001

Craig and Amber Hall
3215 Appleton Side Road
Carleton Place, Ontario
K7C 4M3

Attention: Craig and Amber Hall

Re: Slope Stability Assessment
Development of a Rural Cooperative
1099B Lafolia Lane
Palmerston, Ontario

INTRODUCTION

This letter presents the results of a slope stability assessment carried out at the proposed development of a rural cooperative to be located at 1099B Lafolia Lane in Palmerston (Ompah), Ontario. The purpose of this slope stability assessment is to establish the 'Erosion Hazard Limit' for the site. This limit constitutes a safe setback for any proposed development at the site with respect to slope stability. The Erosion Hazard Limit was determined based on the Natural Hazard Policies set forth in Section 3.1 of the Provincial Policy Statements of the Planning Act of Ontario. Current regulations restrict development within the Erosion Hazard Limit.

BACKGROUND

Plans are being prepared to construct a rural cooperative development located at 1099B Lafolia Lane in Palmerston (Ompah), Ontario. Based on preliminary plans, the proposed development consists of 10 residential cabins as well as a variety of shared buildings and facilities.

The site is about 35 acres in size and includes a peninsula of land extending into the lake. The site is bordered to the north and west by Palmerston Lake and to the east and south by undeveloped land. Based on a preliminary review of available photographs, the site is mostly undeveloped and heavily treed.

A site visit was previously carried out by GEMTEC personnel as part of the EIS work; it was noted that bedrock outcrops were visible at ground surface in some locations.

Surficial geology maps of the area indicate the subsurface conditions at the site are expected to consist of glacial till deposits and bedrock.

DESCRIPTION OF SITE AND SLOPE

A site reconnaissance was carried out on May 26, 2021 by a member of our engineering staff. At that time, the geometry of the full height of the slope at the site was surveyed at three locations, named Section A-A, B-B, and C-C using level surveying techniques. The locations of the cross sections are provided on Figure 1. The slope cross section profiles for Sections A-A, B-B, and C-C are shown on Figures 2, 3, and 4, respectively.

Manual augerholes were advanced along the surveyed slope cross sections and generally encountered refusal at depths of about 0.2 metres below the existing ground surface. Bedrock outcrops were noted at the toe of the slope at Section C-C. The overburden generally consists of topsoil over silty sand and gravel.

The site has an overall slope height of about 7 to 11 metres with inclinations between about 17 and 30 degrees from the horizontal along the natural slope.

The site is vegetated with small to large trees and grass. A previous slope failure was observed adjacent to Section A-A.

In general, the slopes are vegetated with grass, small shrubs and small to large trees. At the time of our site reconnaissance, active erosion and sloughing of the slopes were visible along the toe of the slopes. A previous slope failure was observed adjacent to Section A-A and has resulted in a relatively steep slope, devoid of vegetation with exposed roots.

SLOPE STABILITY ASSESSMENT

In an attempt to assess the “worst case scenario” or steepest slope, the slope stability analysis was carried out at Section ‘A-A’ using Slope/W, a two dimensional limit equilibrium slope stability program. The results of the slope stability analyses are provided on the attached Figure 5.

Soil Strength Parameters

The soil conditions used in the stability analyses were based, in part, on the results of the hand augerholes advanced at the site, visual observations of the subsurface conditions at the site, and MOE well records in the vicinity of the site. It was assumed that the bedrock is located at a depth of about 2 metres below the ground surface throughout the slopes. This is considered conservative based on the bedrock outcrops observed on the site and the results of our hand augerholes.

To determine the existing factor of safety against overall rotational failure, the slope stability analyses were carried out using drained soil parameters, which reflect long term conditions.

The following table summarizes the soil parameters used in the analyses:

Table 1 – Slope Stability Soil Strength Parameters

Soil Type	Effective Angle of Internal Friction, φ (degrees)	Effective Cohesion, c′ (kilopascals)	Unit Weight, γ (kN/m^3)
Sand and Gravel	34	0	19

The results of a stability analysis are highly dependent on the assumed groundwater conditions. No information is available on the long term groundwater levels throughout the year; however, as a conservative approach, we have assumed that the groundwater level is located at a depth of about 2 metres below the crest of the slope (i.e., along the surface of the bedrock).

The slope stability analyses were carried out using soil parameters, groundwater conditions and a slope profile that attempt to model the slopes in question but do not exactly represent the actual conditions.

For the purposes of this study, a computed factor of safety of less than 1.0 to 1.3 is considered to represent a slope bordering on failure to marginally stable, respectively; a factor of safety of 1.3 to 1.5 is considered to indicate a slope that is less likely to fail in the long term and provides a degree of confidence against failure ranging from marginal (1.3) to adequate (1.4 and greater) should conditions vary from the assumed conditions. A factor of safety of 1.5, or greater, is considered to indicate adequate long term stability.

Existing Conditions

The slope stability analysis indicated that the existing slope at Section A-A, in the current configuration, has a factor of safety against overall rotational failure of about 0.7.

Based on the results of the analyses, the slopes are considered unstable under “worst case” conditions. The results of the stability analyses agree with our field observations on May 26, 2021, where a previous slope failure was observed adjacent to Section A-A.

The Stable Slope Allowance, as described in the MNR procedures, is the area where a factor of safety of less than 1.5 against overall rotational failure is calculated. At Section A-A, the slope stability analyses indicate that the existing slopes along the shores of Palmerston Lake, in their current configurations, have a factor of safety against failure of less than 1.5 (refer to Figure 5). At Section A-A, the analyses indicate that the Stable Slope Allowance extends inland about 25 metres from the edge of Palmerston Lake.

Palmerston Lake is located at the toe of Sections A-A, B-B, and C-C, and in accordance with the MNR documents, a minimum Toe Erosion Allowance of between 5 to 8 metres is required for dense sand and gravel. Given that signs of slope instability were observed, a Toe Erosion Allowance of 8 metres should be used (refer to Figure 5).

The MNR procedures also include the application of a 6 metre wide Erosion Access Allowance beyond the Toe Erosion Allowance to allow for access by equipment to repair a possible failed slope. Based on the preliminary development plans provided, there will be unrestricted access to the slope for equipment, and therefore, the Erosion Access Allowance is not required.

Therefore, the Erosion Hazard Limit for the slopes along Palmerston Lake will be about 33 metres from the toe of the slope.

CLOSURE

We trust that this letter is sufficient for your purposes. If you have any questions concerning this information or if we can be of further assistance to you on this project, please call.

Alex Meacoe, P.Eng.
Geotechnical Engineer

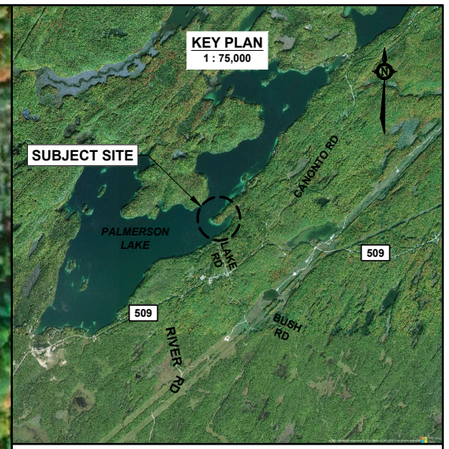
Brent Wiebe, P.Eng.
VP Operations - Ontario

WAM/BW

Enclosures
N:\Projects\100200\100227.001\04_Deliverables\Geotechnical\100227.001_GEOT_RPT02_V01_2021-06-29.docx

ATTACHMENTS

Figure 1 – Site Plan
Figure 2 – Slope Cross Section A-A
Figure 3 – Slope Cross Section B-B
Figure 4 – Slope Cross Section C-C
Figure 5 – Slope Stability Assessment – Section A-A



LEGEND

A A' **SLOPE CROSS SECTION LOCATION IN PLAN**
(current investigation by GEMTEC)

Scale
1:1000
0 20 40 60m

GEMTEC
CONSULTING ENGINEERS AND SCIENTISTS
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Ottawa, ON K2K 2A9
Tel: (613) 836-1422
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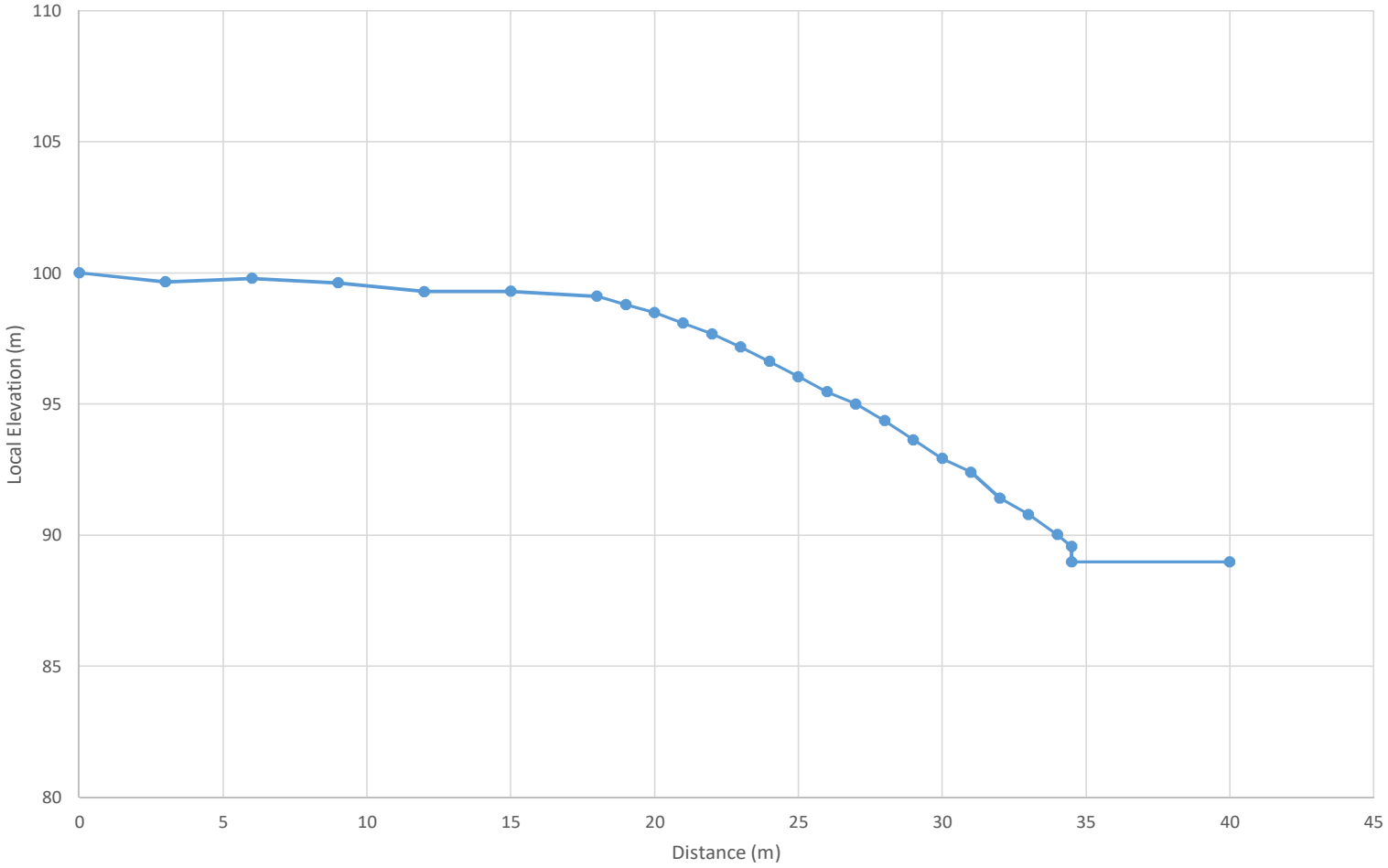
ottawa@gemtec.ca

Drawing
SITE PLAN

Client
CRAIG AND AMBER HALL

Project		
100227.001		1099B LAFOLIA LANE PALMERSTON, ONTARIO
Drwn by: S.L.	Chkd by: W.A.M.	
Date: JUNE, 2021	Rev.: 0	**FIGURE 1**

N:\PROJECTS\100200\100227.001\06_DRAFTING\1.DRAWINGS\100227.001_GEOSP_R0_2021-06.DWG



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Slope Cross Section A-A

Development of a Rural Cooperative

1099B Lafolia Lane, Palmerston, Ontario

Project No.	100227.001
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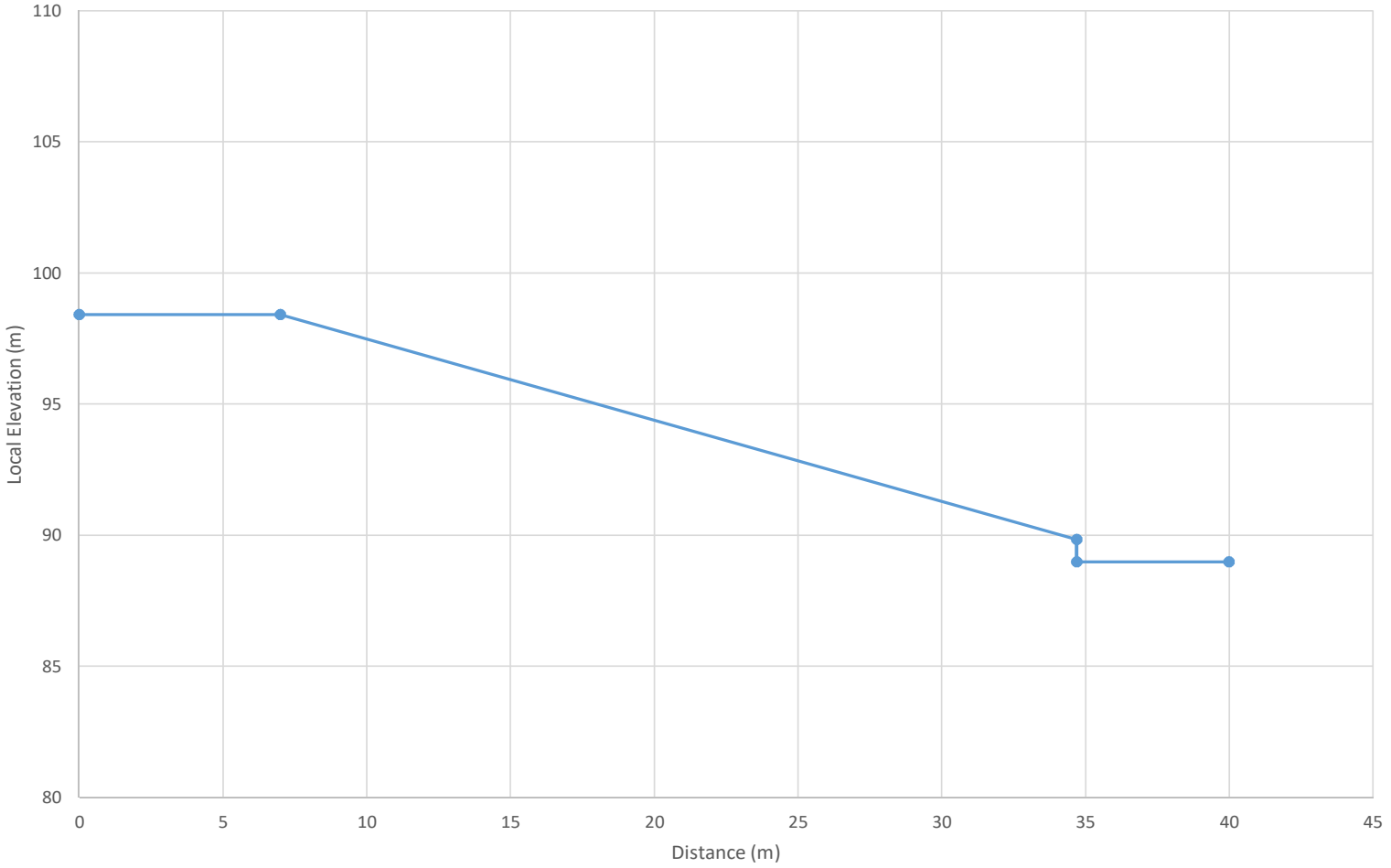
Date:	31/05/2021

Figure 2



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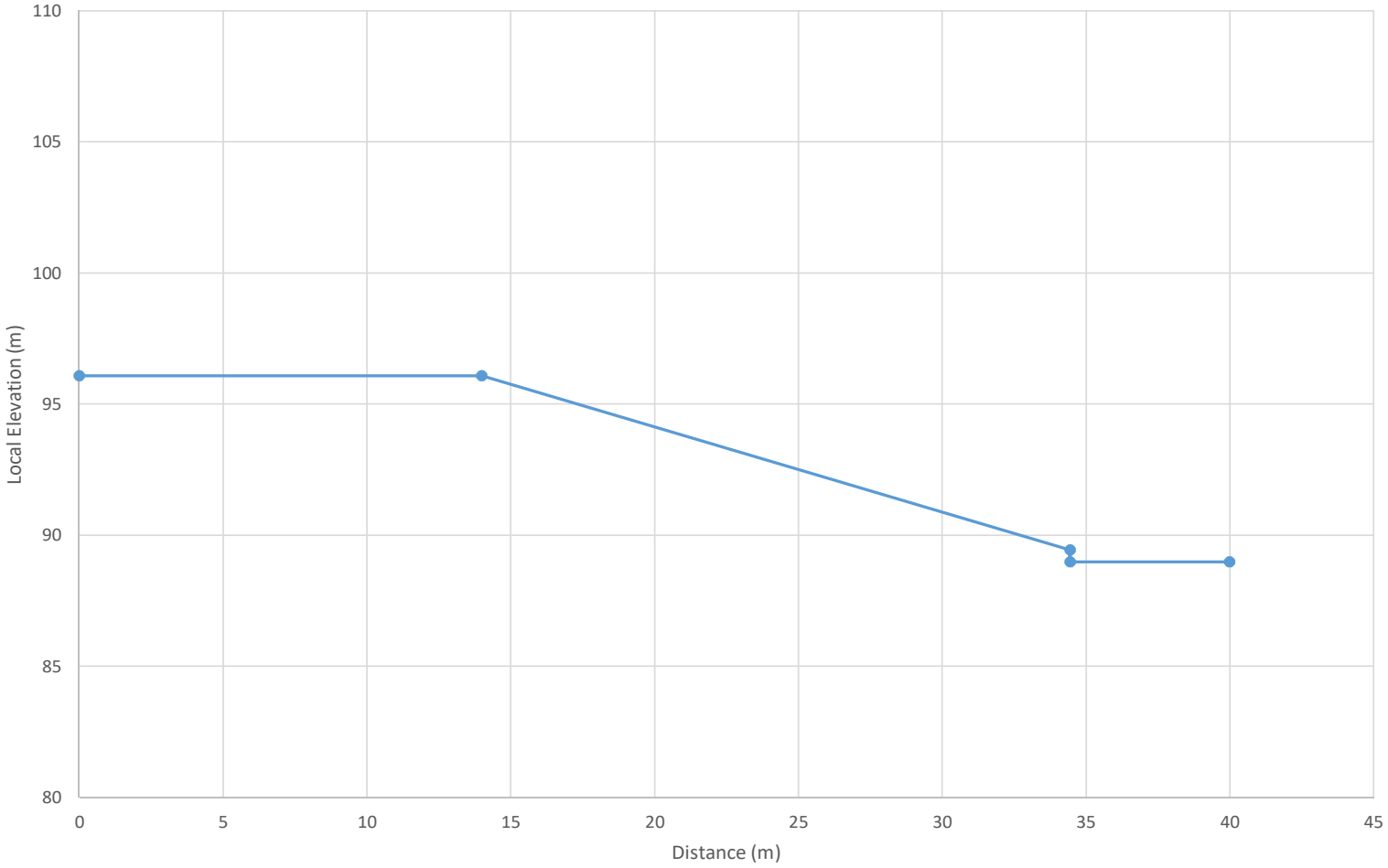
Slope Cross Section B-B

Development of a Rural Cooperative

1099B Lafolia Lane, Palmerston, Ontario

Project No.	100227.001
Drawn:	WAM
Date:	31/05/2021

Figure 3



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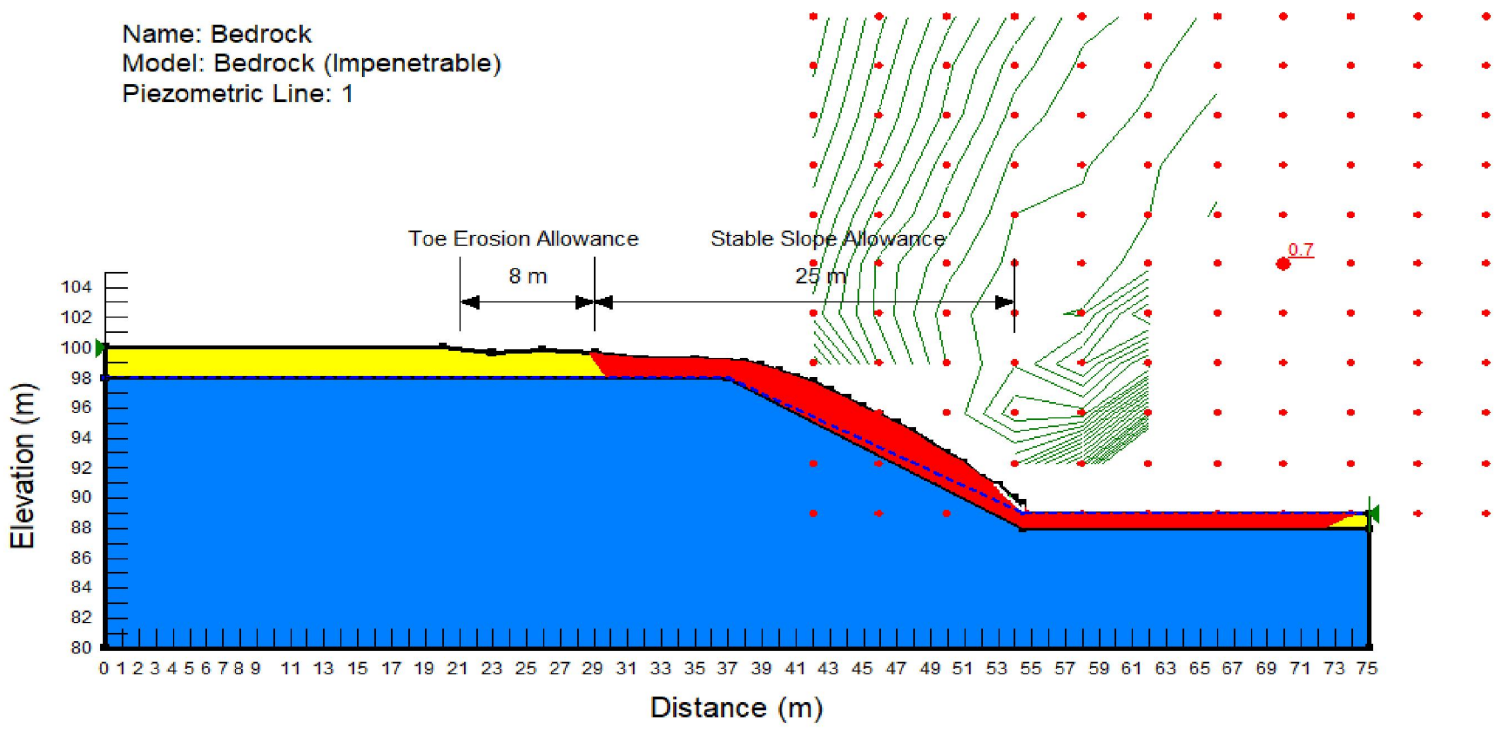
Slope Cross Section C-C

Development of a Rural Cooperative

1099B Lafolia Lane, Palmerston, Ontario

Project No.	100227.001
Drawn:	WAM
Date:	31/05/2021

Figure 4



GEMTEC
Consulting Engineers and Scientists

Slope Stability Assessment - Section A-A

Development of a Rural Cooperative

1099B Lafolia Lane, Palmerston, Ontario

Project No.	100227.001
Drawn:	WAM
Date:	31/05/2021

Figure 5

Kollaard Associates
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P.O. Box 189
Kemptville, Ontario K0G 1J0

Civil • Geotechnical •
Structural • Environmental •
Hydrogeology •
(613) 860-0923
FAX: (613) 258-0475

SANITARY SERVICING BRIEF

PROPOSED COTTAGE COOPERATIVE
1099B LAFOLIA LANE
TOWNSHIP OF NORTH FRONTENAC,
ONTARIO

Prepared For:
Craig Hall
451 Ottawa Street
Almonte, Ontario
K0A 1A0

PROJECT #: 211373

DISTRIBUTION

1 digital copy	Craig Hall
1 copy	Kollaard Associates Inc.

Rev 0 – Issued for Approval June 27, 2022

1 INTRODUCTION

The proposed project located at 1099B Lafolia Lane, Ompah ON will consists of the construction of eight (8) new cottages. There is one (1) existing cottage on the property.

Water service will be provided by means of a surface water intake from Palmerston Lake.

Sanitary services for the cottages will be provided by means of individual septic tanks and leaching beds installed near each proposed cottage.

2 SANITARY SERVICES

The proposed sanitary service will be provided by on-site sewage disposal systems designed in accordance with Part 8 of the Ontario Building Code. The design flow for the proposed septic systems is calculated using the Ontario Building Code 8.2.1.3. and is summarized in the following table;

Establishment Item	Number of bedrooms	Number of fixtures over 20 units	Amount of living space over 200m^2	Flow (L/day)
Existing Cottage	2	0	0	1100
Proposed Cottage #1	2	0	0	1100
Proposed Cottage #2	1	0	0	750
Proposed Cottage #3	3	0	0	1600
Proposed Cottage #4	2	0	0	1100
Proposed Cottage #5	2	0	0	1100
Proposed Cottage #6	3	0	0	1600
Proposed Cottage #7	2	0	0	1100
Total				**9,450**

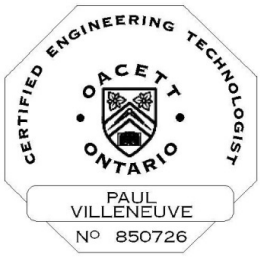
Each cottage will be serviced by its own septic tank and its own absorption trench leaching bed. Refer to Kollaard Associates drawing #211373-SD1 and #211373-SD2.

All of the septic system will be located a minimum of 30m from the edge of Palmerston Lake.

The total daily design sewage flow rate of the property is 9,450 L/day, which is less than 10,000 L/day, therefore the septic system designs are governed by the Ontario Building Code and the septic permit applications will be made with the Township of North Frontenac.

We trust this letter provided sufficient information for your purposes. Should you have any questions, do not hesitate to contact us at (613) 860 – 0923.

Yours truly,
KOLLAARD ASSOCIATES



Paul Villeneuve, C.E.T.

Kaleb Lakew, P.Eng.

TOPOGRAPHIC INFORMATION/CONTOURS
PROVIDED BY RECON AERIAL DRAWING NUMBER
C002 FOR 1099B LAFOLIA LANE

CONSTRUCTION NOTES:

No.	REVISION	DATE	BY

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STAMP: LICENCED PROFESSIONAL ENGINEER · K. LAKEW · 90421595 · JUN 27 / 22 · PROVINCE OF ONTARIO

DESIGN	PV
CHECKED	KL
DRAWN	PV
CHECKED	KL
APPROVED	KL

1099B LAFOLIA LANE,
TOWNSHIP OF NORTH FRONTENAC,
COUNTY OF FRONTENAC, ONTARIO

OMPAH PALMERSTON
COTTAGE COOPERATIVE

SANITARY SERVICING BRIEF PLAN

PROJECT No.	211373
DRAWING No.	211373–SD1
DATE	JUN 2022
SCALE	1:750

TOPOGRAPHIC INFORMATION/CONTOURS
PROVIDED BY RECON AERIAL DRAWING NUMBER
C002 FOR 1099B LAFOLIA LANE

PALMERSTON LAKE

EXISTING COTTAGE

PROPOSED COTTAGE – 2 BDR

APPROXIMATE LOCATION OF PROPOSED LEACHING BED

APPROXIMATE LOCATION OF PROPOSED SEPTIC TANK

APPROXIMATE LOCATION OF PROPOSED LEACHING BED

APPROXIMATE LOCATION OF PROPOSED SEPTIC TANK

APPROXIMATE LOCATION OF PROPOSED LEACHING BED

OTTAGE – 1 BDR

SEE DWG 211373-SD1

CONSTRUCTION NOTES:

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TOWNSHIP OF NORTH FRONTENAC,
COUNTY OF FRONTENAC, ONTARIO

OMPAH PALMERSTON
COTTAGE COOPERATIVE

SANITARY SERVICING BRIEF PLAN

PROJECT No.	211373
DRAWING No.	211373-SD2
DATE	JUN 2022
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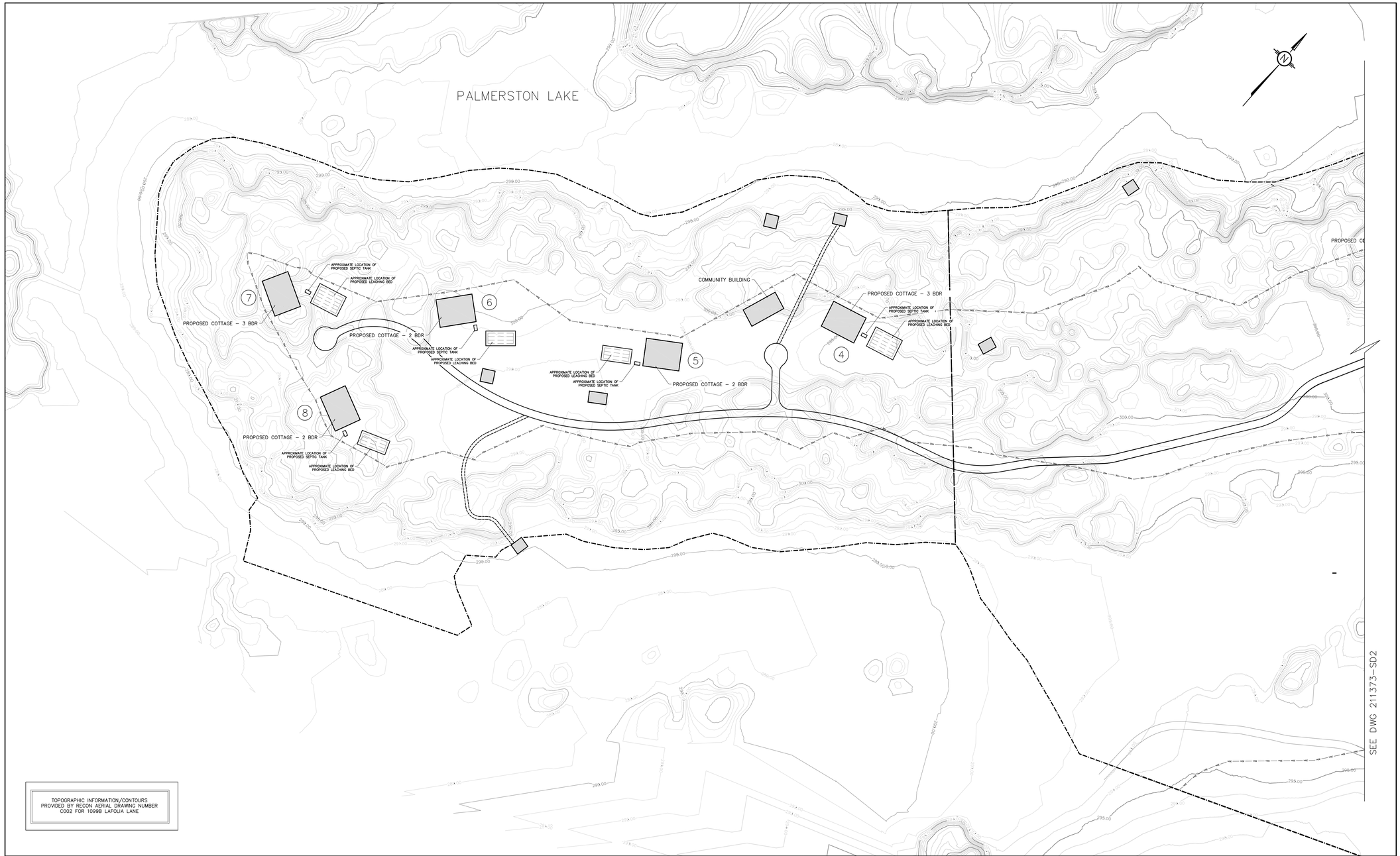

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OMPAH PALMERSTON
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PROJECT No.	211373
DRAWING No.	211373–SD1
DATE	JUN 2022
SCALE	1:750

TOPOGRAPHIC INFORMATION/CONTOURS
PROVIDED BY RECON AERIAL DRAWING NUMBER
C002 FOR 1099B LAFOLIA LANE

PALMERSTON LAKE

EXISTING COTTAGE

PROPOSED COTTAGE – 2 BDR

APPROXIMATE LOCATION OF PROPOSED LEACHING BED

APPROXIMATE LOCATION OF PROPOSED SEPTIC TANK

APPROXIMATE LOCATION OF PROPOSED LEACHING BED

APPROXIMATE LOCATION OF PROPOSED SEPTIC TANK

APPROXIMATE LOCATION OF PROPOSED LEACHING BED

OTTAGE – 1 BDR

SEE DWG 211373-SD1

CONSTRUCTION NOTES:

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1099B LAFOLIA LANE,
TOWNSHIP OF NORTH FRONTENAC,
COUNTY OF FRONTENAC, ONTARIO

OMPAH PALMERSTON
COTTAGE COOPERATIVE

SANITARY SERVICING BRIEF PLAN

PROJECT No.	211373
DRAWING No.	211373-SD2
DATE	JUN 2022
SCALE	1:750

LA FOLIA

DRAWING INDEX		
DWG. No.	DESCRIPTION	REV.
C000	COVER SHEET	1
C001	ORTHOMOSAIC	2
C002	CONTOURS	2
C003	PROPOSED LAYOUT KEY PLAN	3
C100	PROPOSED LAYOUT	3
C200	POINT TABLES	3

COORDINATE SYSTEM	
CODE	WGS84.PSEUDOMERCATOR
	EPSG CODE: 3857
DATUM	WGS84 (WORLD GEODETIC SURVEY OF 1984)

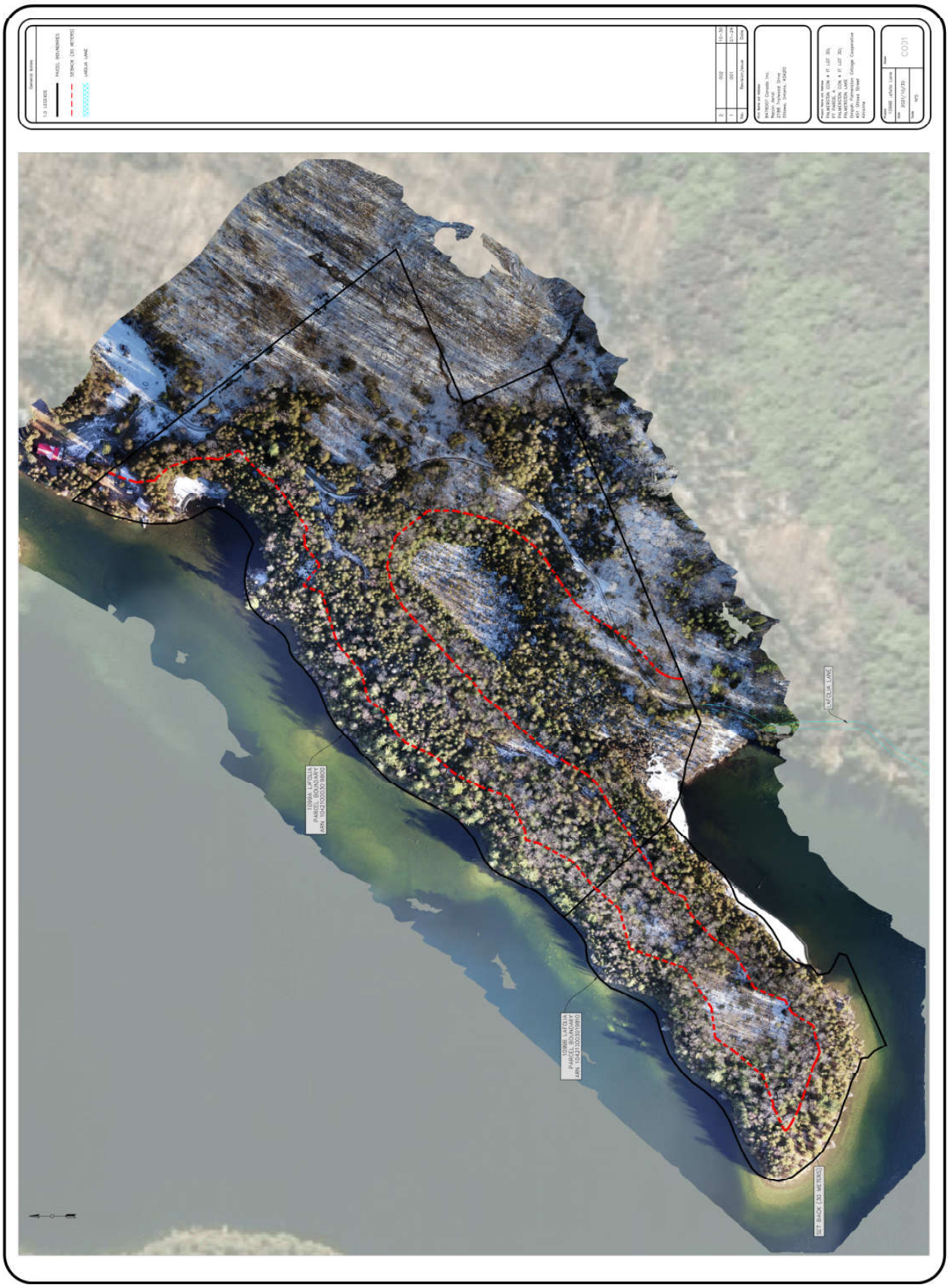
General Notes

No.	Revision/Issue	Date
1	001	01-24

Firm Name and Address
6478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address
PALMERSTON CON 4 PT LOT 30;
PT PARCEL A
PALMERSTON CON 4 PT LOT 30;
PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project: 1099 Lafolia Lane	Sheet: C000
Date: 2021/10/30	
Scale: NTS	


LEGEND
PARCEL BOUNDARIES
SETBACK (30 METERS)
LAKELIA LANE
SET BACK (30 METERS)

General Notes

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
- MEANDERING WITH PERMEABLE SURFACE
- LOT BOUNDARIES
- WATERFRONT ZONES

1. ORIGINAL COTTAGE
2. COTTAGE SITE #1-2 BDR
3. COTTAGE SITE #2-1 BDR
4. COTTAGE SITE #3-3 BDR
5. COTTAGE SITE #4-2 BDR
6. COTTAGE SITE #5-2 BDR
7. COTTAGE SITE #6-3 BDR
8. COTTAGE SITE #7-2 BDR
9. WORKSHOP MEADOW
10. STUDIO
11. GAZEBO
12. GAZEBO
13. BUNKIE
14. GAZEBO
15. COMMUNITY BUILDING
16. WATERFRONT STORAGE
17. TRAILER SITE
18. BUNKIE
19. BOAT HOUSE
20. SMALL SWIM DOCK
21. MAIN WATERFRONT
22. BOAT DOCKS

No.	Revision/Issue	Date
4	004	2022.02.21

Firm Name and Address
8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address
PALMERSTON CON 4 PT LOT 30;
PT PARCEL A
PALMERSTON CON 4 PT LOT 30;
PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project: 1099B Lafolia Lane
Date: 2022/03/14
Scale: NTS
Sheet: C003

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
- MEANDERING WITH PERMEABLE SURFACE
- LOT BOUNDARIES
- WATERFRONT ZONES
- (1) ORIGINAL COTTAGE
- (2) COTTAGE SITE #1-2 BDR
- (3) COTTAGE SITE #2-1 BDR
- (4) COTTAGE SITE #3-3 BDR
- (5) COTTAGE SITE #4-2 BDR
- (6) COTTAGE SITE #5-2 BDR
- (7) COTTAGE SITE #6-3 BDR
- (8) COTTAGE SITE #7-2 BDR
- (9) WORKSHOP MEADOW
- (10) STUDIO
- (11) GAZEBO
- (12) GAZEBO
- (13) BUNKIE
- (14) GAZEBO
- (15) COMMUNITY BUILDING
- (16) WATERFRONT STORAGE
- (17) TRAILER SITE
- (18) BUNKIE
- (19) BOAT HOUSE
- (20) SMALL SWIM DOCK
- (21) MAIN WATERFRONT
- (22) BOAT DOCKS

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4	004	2022.02.21

Firm Name and Address

8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project	Sheet
1099B Lafolia Lane	C100
Date: 2022/03/15	
Scale: 1:177	

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
- MEANDERING WITH PERMEABLE SURFACE
- LOT BOUNDARIES
- WATERFRONT ZONES
- (1) ORIGINAL COTTAGE
- (2) COTTAGE SITE #1-2 BDR
- (3) COTTAGE SITE #2-1 BDR
- (4) COTTAGE SITE #3-3 BDR
- (5) COTTAGE SITE #4-2 BDR
- (6) COTTAGE SITE #5-2 BDR
- (7) COTTAGE SITE #6-3 BDR
- (8) COTTAGE SITE #7-2 BDR
- (9) WORKSHOP MEADOW
- (10) STUDIO
- (11) GAZEBO
- (12) GAZEBO
- (13) BUNKIE
- (14) GAZEBO
- (15) COMMUNITY BUILDING
- (16) WATERFRONT STORAGE
- (17) TRAILER SITE
- (18) BUNKIE
- (19) BOAT HOUSE
- (20) SMALL SWIM DOCK
- (21) MAIN WATERFRONT
- (22) BOAT DOCKS

No.	Revision/Issue	Date
4	004	2022.02.21

Firm Name and Address

8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project	Sheet
1099B Lafolia Lane	C101
Date: 2022/03/15	
Scale: 1:177	

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
- MEANDERING WITH PERMEABLE SURFACE
- LOT BOUNDARIES
- WATERFRONT ZONES
- (1) ORIGINAL COTTAGE
- (2) COTTAGE SITE #1-2 BDR
- (3) COTTAGE SITE #2-1 BDR
- (4) COTTAGE SITE #3-3 BDR
- (5) COTTAGE SITE #4-2 BDR
- (6) COTTAGE SITE #5-2 BDR
- (7) COTTAGE SITE #6-3 BDR
- (8) COTTAGE SITE #7-2 BDR
- (9) WORKSHOP MEADOW
- (10) STUDIO
- (11) GAZEBO
- (12) GAZEBO
- (13) BUNKIE
- (14) GAZEBO
- (15) COMMUNITY BUILDING
- (16) WATERFRONT STORAGE
- (17) TRAILER SITE
- (18) BUNKIE
- (19) BOAT HOUSE
- (20) SMALL SWIM DOCK
- (21) MAIN WATERFRONT
- (22) BOAT DOCKS

No.	Revision/Issue	Date
4	004	2022.02.21

Firm Name and Address

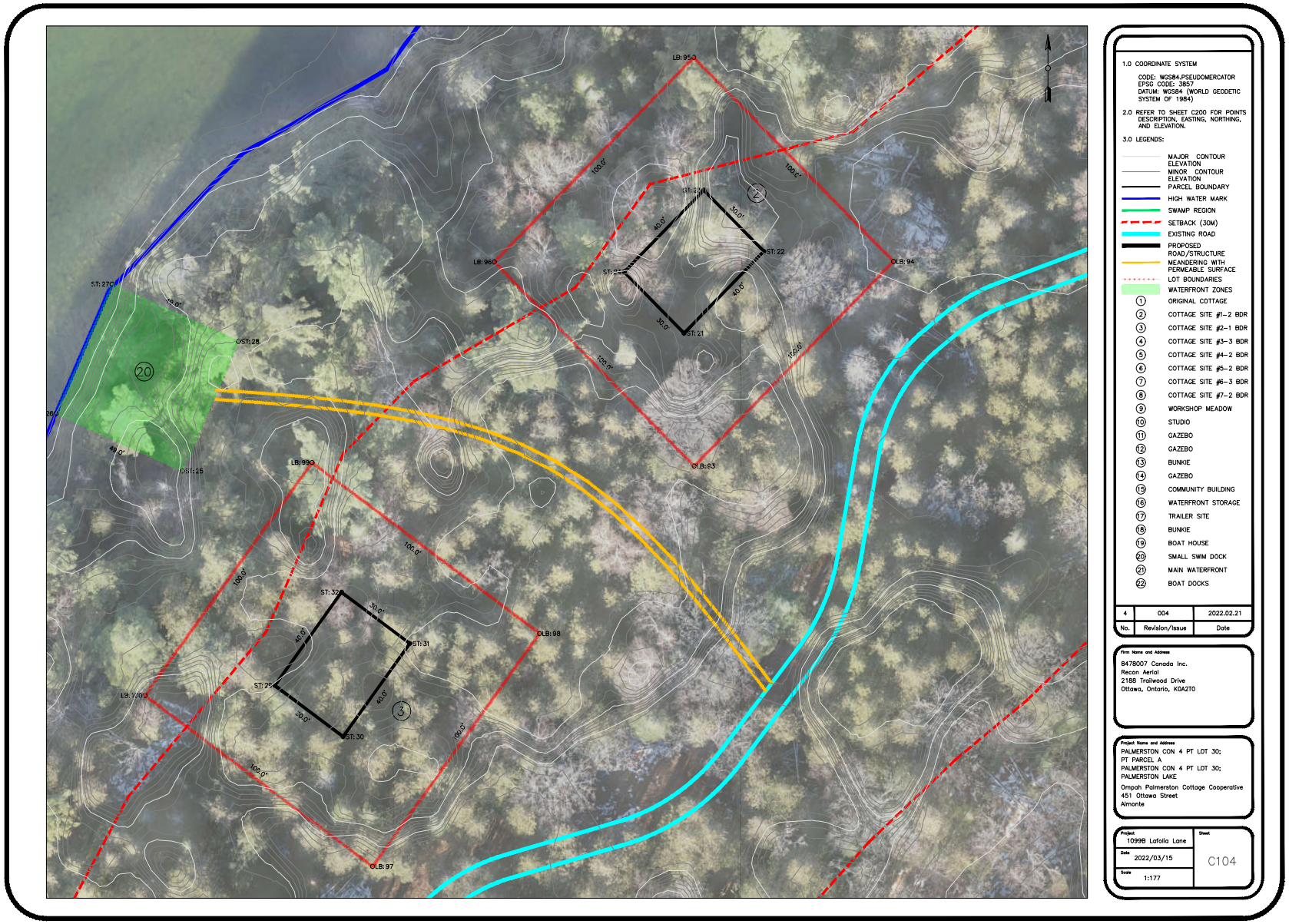
8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project	Sheet
1099B Lafolia Lane	C102
Date: 2022/03/15	
Scale: 1:177	

1.0 COORDINATE SYSTEM
CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)
2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.
3.0 LEGENDS:
MAJOR CONTOUR ELEVATION
MINOR CONTOUR ELEVATION
PARCEL BOUNDARY
HIGH WATER MARK
SWAMP REGION
SETBACK (30M)
EXISTING ROAD
PROPOSED ROAD/STRUCTURE
MEANDERING WITH PERMEABLE SURFACE
LOT BOUNDARIES
WATERFRONT ZONES
1 ORIGINAL COTTAGE
2 COTTAGE SITE #1-2 BDR
3 COTTAGE SITE #2-1 BDR
4 COTTAGE SITE #3-3 BDR
5 COTTAGE SITE #4-2 BDR
6 COTTAGE SITE #5-2 BDR
7 COTTAGE SITE #6-3 BDR
8 COTTAGE SITE #7-2 BDR
9 WORKSHOP MEADOW
10 STUDIO
11 GAZEBO
12 GAZEBO
13 BUNKIE
14 GAZEBO
15 COMMUNITY BUILDING
16 WATERFRONT STORAGE
17 TRAILER SITE
18 BUNKIE
19 BOAT HOUSE
20 SMALL SWIM DOCK
21 MAIN WATERFRONT
22 BOAT DOCKS
4 004 2022.02.21
No. Revision/Issue Date
Firm Name and Address
8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0
Project Name and Address
PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte
Project 1099B Lafolia Lane
Date 2022/03/15
Scale 1:177
Sheet C103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LB: 96O
OLB: 94
ST: 22
ST: 21
OLB: 93
ST: 27O
ST: 28
ST: 25
LB: 99O
LB: 100O
ST: 32
ST: 31
ST: 2°
ST: 30
OLB: 98
OLB: 97
1.0 COORDINATE SYSTEM
CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)
2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.
3.0 LEGENDS:
MAJOR CONTOUR ELEVATION
MINOR CONTOUR ELEVATION
PARCEL BOUNDARY
HIGH WATER MARK
SWAMP REGION
SETBACK (30M)
EXISTING ROAD
PROPOSED ROAD/STRUCTURE
MEANDERING WITH PERMEABLE SURFACE
LOT BOUNDARIES
WATERFRONT ZONES
1 ORIGINAL COTTAGE
2 COTTAGE SITE #1-2 BDR
3 COTTAGE SITE #2-1 BDR
4 COTTAGE SITE #3-3 BDR
5 COTTAGE SITE #4-2 BDR
6 COTTAGE SITE #5-2 BDR
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8 COTTAGE SITE #7-2 BDR
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12 GAZEBO
13 BUNKIE
14 GAZEBO
15 COMMUNITY BUILDING
16 WATERFRONT STORAGE
17 TRAILER SITE
18 BUNKIE
19 BOAT HOUSE
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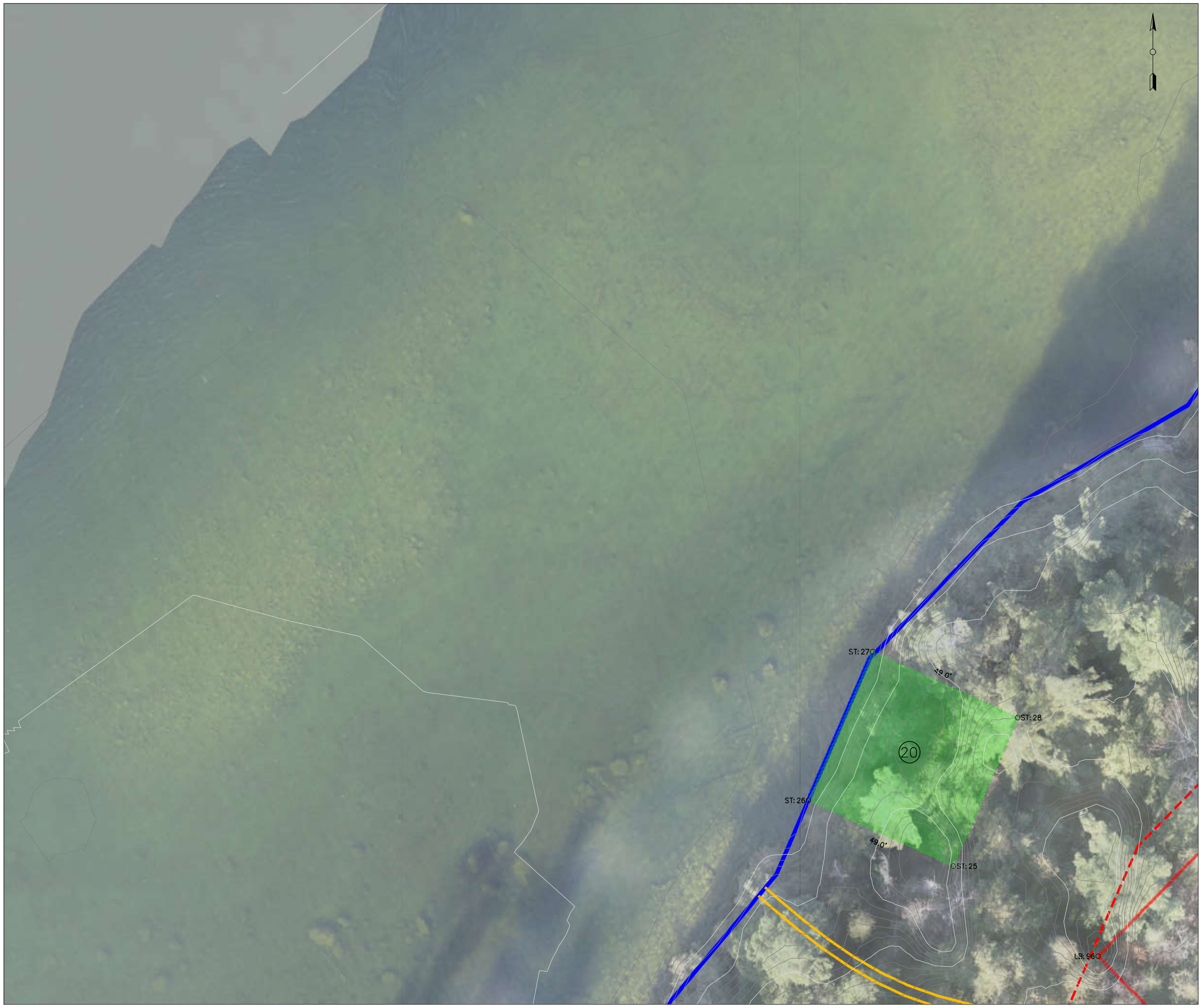
21 MAIN WATERFRONT
22 BOAT DOCKS
4 004 2022.02.21
No. Revision/Issue Date
Firm Name and Address
8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0
Project Name and Address
PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte
Project 1099B Lafolia Lane
Date 2022/03/15
Scale 1:177
Sheet C104



1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
- MEANDERING WITH PERMEABLE SURFACE
- LOT BOUNDARIES
- WATERFRONT ZONES

1	ORIGINAL COTTAGE
2	COTTAGE SITE #1-2 BDR
3	COTTAGE SITE #2-1 BDR
4	COTTAGE SITE #3-3 BDR
5	COTTAGE SITE #4-2 BDR
6	COTTAGE SITE #5-2 BDR
7	COTTAGE SITE #6-3 BDR
8	COTTAGE SITE #7-2 BDR
9	WORKSHOP MEADOW
10	STUDIO
11	GAZEBO
12	GAZEBO
13	BUNKIE
14	GAZEBO
15	COMMUNITY BUILDING
16	WATERFRONT STORAGE
17	TRAILER SITE
18	BUNKIE
19	BOAT HOUSE
20	SMALL SWIM DOCK
21	MAIN WATERFRONT
22	BOAT DOCKS

4	004	2022.02.21
No.	Revision/Issue	Date

Firm Name and Address

8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30;
PT PARCEL A
PALMERSTON CON 4 PT LOT 30;
PALMERSTON LAKE

Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project: 1099B Lafolia Lane	Sheet: C105
Date: 2022/03/15	
Scale: 1:177	

General Notes

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
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- (7) COTTAGE SITE #6-3 BDR
- (8) COTTAGE SITE #7-2 BDR
- (9) WORKSHOP MEADOW
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- (11) GAZEBO
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- (13) BUNKIE
- (14) GAZEBO
- (15) COMMUNITY BUILDING
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- (17) TRAILER SITE
- (18) BUNKIE
- (19) BOAT HOUSE
- (20) SMALL SWIM DOCK
- (21) MAIN WATERFRONT
- (22) BOAT DOCKS

No.	Revision/Issue	Date
4	004	2022.02.21

Firm Name and Address

8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project	Sheet
1099B Lafolia Lane	C106
Date: 2022/03/15	
Scale: 1:177	

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
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- LOT BOUNDARIES
- WATERFRONT ZONES
- (1) ORIGINAL COTTAGE
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- (3) COTTAGE SITE #2-1 BDR
- (4) COTTAGE SITE #3-3 BDR
- (5) COTTAGE SITE #4-2 BDR
- (6) COTTAGE SITE #5-2 BDR
- (7) COTTAGE SITE #6-3 BDR
- (8) COTTAGE SITE #7-2 BDR
- (9) WORKSHOP MEADOW
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- (11) GAZEBO
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- (13) BUNKIE
- (14) GAZEBO
- (15) COMMUNITY BUILDING
- (16) WATERFRONT STORAGE
- (17) TRAILER SITE
- (18) BUNKIE
- (19) BOAT HOUSE
- (20) SMALL SWIM DOCK
- (21) MAIN WATERFRONT
- (22) BOAT DOCKS

No.	Revision/Issue	Date
4	004	2022.02.21

Firm Name and Address

8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project	Sheet
1099B Lafolia Lane	C107
Date: 2022/03/15	
Scale: 1:177	


1.0 COORDINATE SYSTEM
CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)
2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.
3.0 LEGENDS:
MAJOR CONTOUR ELEVATION
MINOR CONTOUR ELEVATION
PARCEL BOUNDARY
HIGH WATER MARK
SWAMP REGION
SETBACK (30M)
EXISTING ROAD
PROPOSED ROAD/STRUCTURE
MEANDERING WITH PERMEABLE SURFACE
LOT BOUNDARIES
WATERFRONT ZONES
1 ORIGINAL COTTAGE
2 COTTAGE SITE #1-2 BDR
3 COTTAGE SITE #2-1 BDR
4 COTTAGE SITE #3-3 BDR
5 COTTAGE SITE #4-2 BDR
6 COTTAGE SITE #5-2 BDR
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8 COTTAGE SITE #7-2 BDR
9 WORKSHOP MEADOW
10 STUDIO
11 GAZEBO
12 GAZEBO
13 BUNKIE
14 GAZEBO
15 COMMUNITY BUILDING
16 WATERFRONT STORAGE
17 TRAILER SITE
18 BUNKIE
19 BOAT HOUSE
20 SMALL SWIM DOCK
21 MAIN WATERFRONT
22 BOAT DOCKS
4 | 004 | 2022.02.21
No. | Revision/Issue | Date
Firm Name and Address
8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0
Project Name and Address
PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte
Project
1099B Lafolia Lane
Date
2022/03/15
Scale
1:177
Sheet
C108

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
- MEANDERING WITH PERMEABLE SURFACE
- LOT BOUNDARIES
- WATERFRONT ZONES

1. ORIGINAL COTTAGE
2. COTTAGE SITE #1–2 BDR
3. COTTAGE SITE #2–1 BDR
4. COTTAGE SITE #3–3 BDR
5. COTTAGE SITE #4–2 BDR
6. COTTAGE SITE #5–2 BDR
7. COTTAGE SITE #6–3 BDR
8. COTTAGE SITE #7–2 BDR
9. WORKSHOP MEADOW
10. STUDIO
11. GAZEBO
12. GAZEBO
13. BUNKIE
14. GAZEBO
15. COMMUNITY BUILDING
16. WATERFRONT STORAGE
17. TRAILER SITE
18. BUNKIE
19. BOAT HOUSE
20. SMALL SWIM DOCK
21. MAIN WATERFRONT
22. BOAT DOCKS

No.	Revision/Issue	Date
4	004	2022.02.21

Firm Name and Address

8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30;
PT PARCEL A
PALMERSTON CON 4 PT LOT 30;
PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project: 1099B Lafolia Lane
Date: 2022/03/15
Scale: 1:177
Sheet: C109


1.0 COORDINATE SYSTEM
CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)
2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.
3.0 LEGENDS:
MAJOR CONTOUR ELEVATION
MINOR CONTOUR ELEVATION
PARCEL BOUNDARY
HIGH WATER MARK
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LOT BOUNDARIES
WATERFRONT ZONES
1 ORIGINAL COTTAGE
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3 COTTAGE SITE #2-1 BDR
4 COTTAGE SITE #3-3 BDR
5 COTTAGE SITE #4-2 BDR
6 COTTAGE SITE #5-2 BDR
7 COTTAGE SITE #6-3 BDR
8 COTTAGE SITE #7-2 BDR
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13 BUNKIE
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17 TRAILER SITE
18 BUNKIE
19 BOAT HOUSE
20 SMALL SWIM DOCK
21 MAIN WATERFRONT
22 BOAT DOCKS
4 004 2022.02.21
No. Revision/Issue Date
Firm Name and Address
8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0
Project Name and Address
PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte
Project 1099B Lafolia Lane
Date 2022/03/15
Scale 1:177
Sheet C110
LB:1110
LB:1130
LB:1160
LB:1200
OLB:110
OLB:115
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OLB:119
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7
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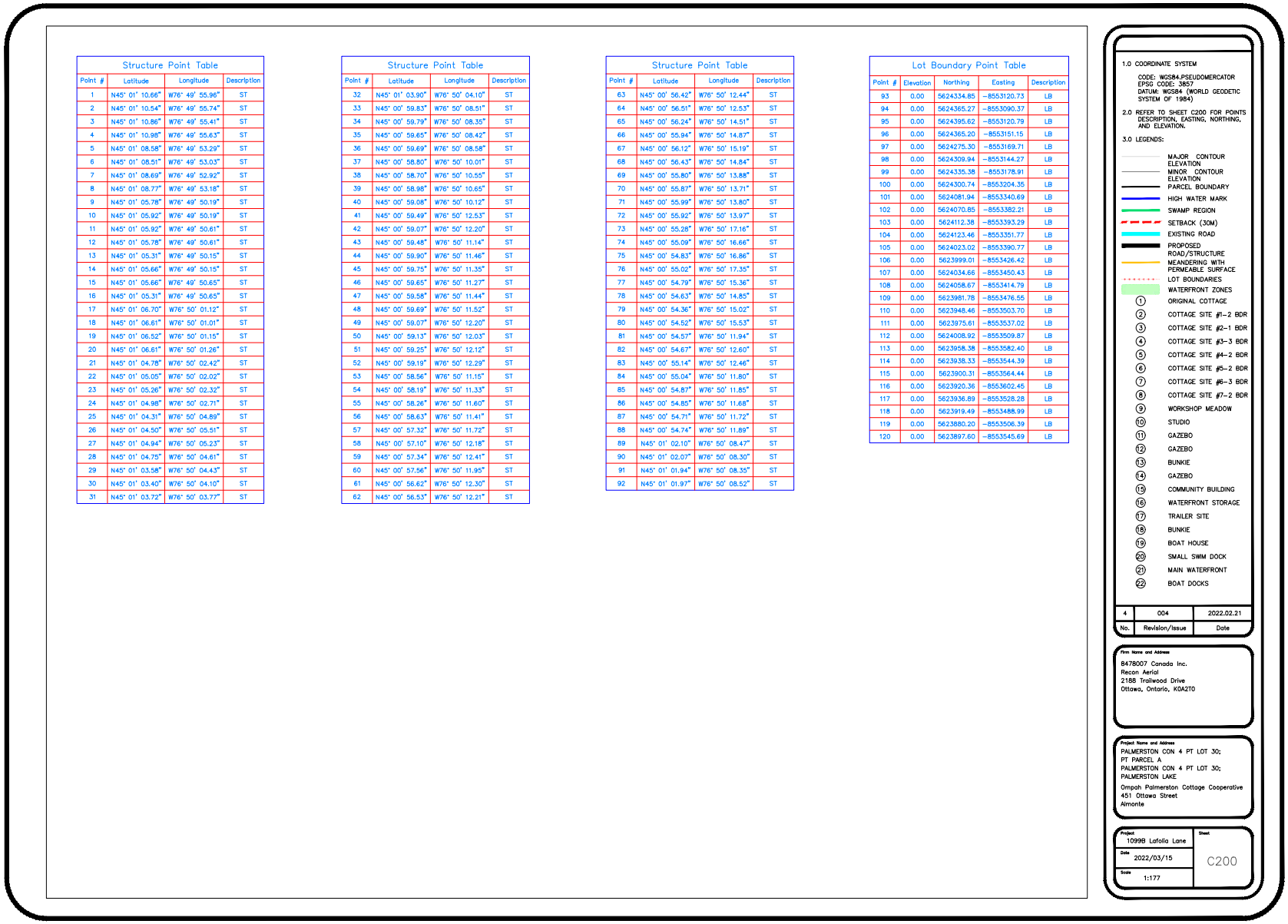

Structure Point Table

Point #	Latitude	Longitude	Description
1	N45° 01' 10.66"	W76° 49' 55.96"	ST
2	N45° 01' 10.54"	W76° 49' 55.74"	ST
3	N45° 01' 10.86"	W76° 49' 55.41"	ST
4	N45° 01' 10.98"	W76° 49' 55.63"	ST
5	N45° 01' 08.58"	W76° 49' 53.29"	ST
6	N45° 01' 08.51"	W76° 49' 53.03"	ST
7	N45° 01' 08.69"	W76° 49' 52.92"	ST
8	N45° 01' 08.77"	W76° 49' 53.18"	ST
9	N45° 01' 05.78"	W76° 49' 50.19"	ST
10	N45° 01' 05.92"	W76° 49' 50.19"	ST
11	N45° 01' 05.92"	W76° 49' 50.61"	ST
12	N45° 01' 05.78"	W76° 49' 50.61"	ST
13	N45° 01' 05.31"	W76° 49' 50.15"	ST
14	N45° 01' 05.66"	W76° 49' 50.15"	ST
15	N45° 01' 05.66"	W76° 49' 50.65"	ST
16	N45° 01' 05.31"	W76° 49' 50.65"	ST
17	N45° 01' 06.70"	W76° 50' 01.12"	ST
18	N45° 01' 06.61"	W76° 50' 01.01"	ST
19	N45° 01' 06.52"	W76° 50' 01.15"	ST
20	N45° 01' 06.61"	W76° 50' 01.26"	ST
21	N45° 01' 04.78"	W76° 50' 02.42"	ST
22	N45° 01' 05.05"	W76° 50' 02.02"	ST
23	N45° 01' 05.26"	W76° 50' 02.32"	ST
24	N45° 01' 04.98"	W76° 50' 02.71"	ST
25	N45° 01' 04.31"	W76° 50' 04.89"	ST
26	N45° 01' 04.50"	W76° 50' 05.51"	ST
27	N45° 01' 04.94"	W76° 50' 05.23"	ST
28	N45° 01' 04.75"	W76° 50' 04.61"	ST
29	N45° 01' 03.58"	W76° 50' 04.43"	ST
30	N45° 01' 03.40"	W76° 50' 04.10"	ST
31	N45° 01' 03.72"	W76° 50' 03.77"	ST

Structure Point Table

Point #	Latitude	Longitude	Description
32	N45° 01' 03.90"	W76° 50' 04.10"	ST
33	N45° 00' 59.83"	W76° 50' 08.51"	ST
34	N45° 00' 59.79"	W76° 50' 08.35"	ST
35	N45° 00' 59.65"	W76° 50' 08.42"	ST
36	N45° 00' 59.69"	W76° 50' 08.58"	ST
37	N45° 00' 58.80"	W76° 50' 10.01"	ST
38	N45° 00' 58.70"	W76° 50' 10.55"	ST
39	N45° 00' 58.98"	W76° 50' 10.65"	ST
40	N45° 00' 59.08"	W76° 50' 10.12"	ST
41	N45° 00' 59.49"	W76° 50' 12.53"	ST
42	N45° 00' 59.07"	W76° 50' 12.20"	ST
43	N45° 00' 59.48"	W76° 50' 11.14"	ST
44	N45° 00' 59.90"	W76° 50' 11.46"	ST
45	N45° 00' 59.75"	W76° 50' 11.35"	ST
46	N45° 00' 59.65"	W76° 50' 11.27"	ST
47	N45° 00' 59.58"	W76° 50' 11.44"	ST
48	N45° 00' 59.69"	W76° 50' 11.52"	ST
49	N45° 00' 59.07"	W76° 50' 12.20"	ST
50	N45° 00' 59.13"	W76° 50' 12.03"	ST
51	N45° 00' 59.25"	W76° 50' 12.12"	ST
52	N45° 00' 59.19"	W76° 50' 12.29"	ST
53	N45° 00' 58.56"	W76° 50' 11.15"	ST
54	N45° 00' 58.19"	W76° 50' 11.33"	ST
55	N45° 00' 58.26"	W76° 50' 11.60"	ST
56	N45° 00' 58.63"	W76° 50' 11.41"	ST
57	N45° 00' 57.32"	W76° 50' 11.72"	ST
58	N45° 00' 57.10"	W76° 50' 12.18"	ST
59	N45° 00' 57.34"	W76° 50' 12.41"	ST
60	N45° 00' 57.56"	W76° 50' 11.95"	ST
61	N45° 00' 56.62"	W76° 50' 12.30"	ST
62	N45° 00' 56.53"	W76° 50' 12.21"	ST

Structure Point Table

Point #	Latitude	Longitude	Description
63	N45° 00' 56.42"	W76° 50' 12.44"	ST
64	N45° 00' 56.51"	W76° 50' 12.53"	ST
65	N45° 00' 56.24"	W76° 50' 14.51"	ST
66	N45° 00' 55.94"	W76° 50' 14.87"	ST
67	N45° 00' 56.12"	W76° 50' 15.19"	ST
68	N45° 00' 56.43"	W76° 50' 14.84"	ST
69	N45° 00' 55.80"	W76° 50' 13.88"	ST
70	N45° 00' 55.87"	W76° 50' 13.71"	ST
71	N45° 00' 55.99"	W76° 50' 13.80"	ST
72	N45° 00' 55.92"	W76° 50' 13.97"	ST
73	N45° 00' 55.28"	W76° 50' 17.16"	ST
74	N45° 00' 55.09"	W76° 50' 16.66"	ST
75	N45° 00' 54.83"	W76° 50' 16.86"	ST
76	N45° 00' 55.02"	W76° 50' 17.35"	ST
77	N45° 00' 54.79"	W76° 50' 15.36"	ST
78	N45° 00' 54.63"	W76° 50' 14.85"	ST
79	N45° 00' 54.36"	W76° 50' 15.02"	ST
80	N45° 00' 54.52"	W76° 50' 15.53"	ST
81	N45° 00' 54.57"	W76° 50' 11.94"	ST
82	N45° 00' 54.67"	W76° 50' 12.60"	ST
83	N45° 00' 55.14"	W76° 50' 12.46"	ST
84	N45° 00' 55.04"	W76° 50' 11.80"	ST
85	N45° 00' 54.87"	W76° 50' 11.85"	ST
86	N45° 00' 54.85"	W76° 50' 11.68"	ST
87	N45° 00' 54.71"	W76° 50' 11.72"	ST
88	N45° 00' 54.74"	W76° 50' 11.89"	ST
89	N45° 01' 02.10"	W76° 50' 08.47"	ST
90	N45° 01' 02.07"	W76° 50' 08.30"	ST
91	N45° 01' 01.94"	W76° 50' 08.35"	ST
92	N45° 01' 01.97"	W76° 50' 08.52"	ST

Lot Boundary Point Table

Point #	Elevation	Northing	Easting	Description
93	0.00	5624334.85	-8553120.73	LB
94	0.00	5624365.27	-8553090.37	LB
95	0.00	5624395.62	-8553120.79	LB
96	0.00	5624365.20	-8553151.15	LB
97	0.00	5624275.30	-8553169.71	LB
98	0.00	5624309.94	-8553144.27	LB
99	0.00	5624335.38	-8553178.91	LB
100	0.00	5624300.74	-8553204.35	LB
101	0.00	5624081.94	-8553340.69	LB
102	0.00	5624070.85	-8553382.21	LB
103	0.00	5624112.38	-8553393.29	LB
104	0.00	5624123.46	-8553351.77	LB
105	0.00	5624023.02	-8553390.77	LB
106	0.00	5623999.01	-8553426.42	LB
107	0.00	5624034.66	-8553450.43	LB
108	0.00	5624058.67	-8553414.79	LB
109	0.00	5623981.78	-8553476.55	LB
110	0.00	5623948.46	-8553503.70	LB
111	0.00	5623975.61	-8553537.02	LB
112	0.00	5624008.92	-8553509.87	LB
113	0.00	5623958.38	-8553582.40	LB
114	0.00	5623938.33	-8553544.39	LB
115	0.00	5623900.31	-8553564.44	LB
116	0.00	5623920.36	-8553602.45	LB
117	0.00	5623936.89	-8553528.28	LB
118	0.00	5623919.49	-8553488.99	LB
119	0.00	5623880.20	-8553506.39	LB
120	0.00	5623897.60	-8553545.69	LB

1.0 COORDINATE SYSTEM

CODE: WGS84.PSEUDOMERCATOR
EPSG CODE: 3857
DATUM: WGS84 (WORLD GEODETIC SYSTEM OF 1984)

2.0 REFER TO SHEET C200 FOR POINTS DESCRIPTION, EASTING, NORTHING, AND ELEVATION.

3.0 LEGENDS:

- MAJOR CONTOUR ELEVATION
- MINOR CONTOUR ELEVATION
- PARCEL BOUNDARY
- HIGH WATER MARK
- SWAMP REGION
- SETBACK (30M)
- EXISTING ROAD
- PROPOSED ROAD/STRUCTURE
- MEANDERING WITH PERMEABLE SURFACE
- LOT BOUNDARIES
- WATERFRONT ZONES
- (1) ORIGINAL COTTAGE
- (2) COTTAGE SITE #1-2 BDR
- (3) COTTAGE SITE #2-1 BDR
- (4) COTTAGE SITE #3-3 BDR
- (5) COTTAGE SITE #4-2 BDR
- (6) COTTAGE SITE #5-2 BDR
- (7) COTTAGE SITE #6-3 BDR
- (8) COTTAGE SITE #7-2 BDR
- (9) WORKSHOP MEADOW
- (10) STUDIO
- (11) GAZEBO
- (12) GAZEBO
- (13) BUNKIE
- (14) GAZEBO
- (15) COMMUNITY BUILDING
- (16) WATERFRONT STORAGE
- (17) TRAILER SITE
- (18) BUNKIE
- (19) BOAT HOUSE
- (20) SMALL SWIM DOCK
- (21) MAIN WATERFRONT
- (22) BOAT DOCKS

No.	Revision/Issue	Date
4	004	2022.02.21

Firm Name and Address

8478007 Canada Inc.
Recon Aerial
2188 Trailwood Drive
Ottawa, Ontario, K0A2T0

Project Name and Address

PALMERSTON CON 4 PT LOT 30; PT PARCEL A
PALMERSTON CON 4 PT LOT 30; PALMERSTON LAKE
Ompah Palmerston Cottage Cooperative
451 Ottawa Street
Almonte

Project	Sheet
1099B Lafolia Lane	C200
Date: 2022/03/15	
Scale: 1:177	

Planning Report

To: Mayor and Members of Council

Prepared By: Sonya Bolton, Manager of Community Planning, County of Frontenac

Reviewed By: Joe Gallivan, Director, Planning & Economic Development, County of Frontenac

Re: Official Plan Amendment Number 1 to the Township of North Frontenac Official Plan – Proposed Administrative Amendments to Implement Bills 13 and 109

File Number: OP01/22

Date Prepared: January 4, 2023
Date of Council Meeting: January 13, 2023

Recommendation

That Council adopt the proposed Official Plan Amendment Number 1 to implement Provincial Bills 13 and 109, as per the draft by-law shown in Attachment 1 to this report; and

That Council direct staff to prepare and send the Official Plan Amendment package to the County of Frontenac for approval.

Background

The purpose of this report is to present information and provide a recommendation about proposed Official Plan Amendment Number 1 to the Township Official Plan. The purpose of the proposed amendment is to make administrative changes to the Township of North Frontenac Official Plan to implement recent changes to the Ontario *Planning Act* through *Bill 13, Supporting Businesses and People Act, 2021* and *Bill 109, More Homes for Everyone Act, 2022*. Specifically, the amendment will include policies in the Township Official Plan regarding complete planning applications, pre-application consultation for planning applications, and delegated authority for planning approvals. A copy of the draft by-law for the proposed amendment is included as Attachment 1 to this report, while a track changes version of the Official Plan Amendment text is included as Attachment 2.

Bill 13, Supporting People and Businesses Act, 2021

Bill 13, the *Supporting People and Businesses Act, 2021*, was introduced on October 7, 2021. Schedule 19 of the Bill made changes to the *Planning Act*, which came into force December 2, 2021, upon royal assent. The change that was made was to provide municipal councils with broader authority to allow more planning decisions to be made by committees of council or staff. In addition to other forms of delegated authority (e.g., consents dealing with lot additions or easements being delegated to senior staff), municipalities can now delegate decisions dealing with minor amendments to zoning by-laws. These minor amendments would include temporary use by-laws and the removal of holding symbols. The municipality's official plan must outline the types of by-laws that may be subject to delegated authority, and then they must pass a by-law specifically outlining who is assigned the authority and any conditions associated with it.

Bill 109, More Homes for Everyone Act, 2022

Bill 109, the *More Homes for Everyone Act, 2022*, received Royal Assent on April 14, 2022, and most amendments being made came into force on that day. Other dates where amendments come into force include July 1, 2022 and January 1, 2023.

There are several different Acts that are affected by Bill 109. The following summary covers the key amendments specific to the *Planning Act*, which is Schedule 5 of Bill 109.

a. Commenced on Royal Assent (April 14, 2022)

The following is a summary of the key changes that took effect on April 14, 2022:

- To help with completeness of site plan control applications, municipalities will establish complete application requirements. Applicants are already required to consult with the municipality before submitting plans and drawings for approval. The timeline for municipalities to approve site plan control applications has increased from 30 to 60 days.

- For plans of subdivision, the changes establish a one-time discretionary authority to allow municipalities (in this case the County of Frontenac) to reinstate draft plans of subdivision that have lapsed within the past five years without the need for a new application. This authority only applies where no agreements of purchase and sale had been entered into prior to the lapsing of the draft plan of subdivision. The changes also establish regulation-making authority for the province to prescribe what can and/or cannot be required as a condition of draft plan of subdivision approval.

- If the approval authority for an Official Plan is the Minister, the Minister may suspend the time period required after which there may be appeals of the failure of the Minister to make a decision in respect of an official plan or an official plan amendment.

- New process in place for the Minister as an approval authority to refer all or part of official plans to the Ontario Land Tribunal for a recommendation before making a decision.

- Processes and rules are outlined for an additional type of Minister's Order that is being added where they are responding to municipal council resolutions requesting expedited

zoning. Provincial plans, the Provincial Policy Statement, and municipal Official Plans would not apply to the Minister's order, and the Minister would be able to impose conditions on the municipality and/or proponent. These conditions could be reflected in agreements registered on title. The Minister must issue guidelines governing the scope of how this authority may be used before an order can be made, and the Province has just release the Community Infrastructure and Housing Accelerator tool and guidelines as part of the implementation of Bill 109.

b. Commenced on July 1, 2022

As of July 1, 2022, the approval of site plan control applications must be delegated to an authorized person (employee/staff, appointed officer, or agent of the municipality) to make a decision, instead of municipal councils or committees of council. This applies to all site plan control applications received on or after July 1, 2022.

The Township of North Frontenac passed By-Law Number 45-22 delegating the authority to approve site plan control applications to the Township Clerk on June 30, 2022, in advance of the July 1, 2022 deadline.

c. Commenced on January 1, 2023

A refund schedule is being put in place for certain planning applications where a decision is not made by the municipality within certain timeframes. This change will affect Official Plan Amendments, Zoning By-Law Amendments, and Site Plan Control Applications. At present, the refund requirement does not apply to Committee of Adjustment applications (e.g., consents and minor variances).

The following are the refund requirements set by the province:

	No Refund	**50% Refund**	**75% Refund**	**100% Refund**
Zoning By-Law Amendment	Decision made within 90 days	Decision made within 91 to 149 days	Decision made within 150 and 209 days	Decision made 210 days or later
Combined Zoning By-Law and Official Plan Amendment	Decisions made within 120 days	Decision made within 121 and 179 days	Decision made within 180 and 239 days	Decision made 240 days or later
Site Plan Control	Decision made within 60 days	Decision made within 61 and 89 days	Decision made within 90 and 119 days	Decision made 120 days or later

Please note that on December 1, 2022, staff were made aware of correspondence between the Association of Municipalities of Ontario (AMO) and the Minister of Municipal Affairs and

Housing (MAH) of the intent of the province to delay the refund of fees from January 1, 2023 to July 1, 2023. At the time of writing this report, this change in date has not been made official. There are also other municipal by-laws and documents that will need to be changed as part of this process (as outlined in the Planning Analysis section below), so staff recommend proceeding with the proposed Official Plan Amendment as planned.

Comment

Public Meeting

The purpose of the report is to provide information about the proposed amendment to Township Council and members of the public. The statutory public meeting required by the *Planning Act* is scheduled for January 13, 2023. At this meeting, staff will provide a brief presentation about the proposed amendment. After the presentation, staff will address questions from Council, as well as members of the public.

Subject to any concerns being raised at the public meeting, staff will be making a recommendation to Council regarding the Official Plan Amendment at the same meeting.

Notification and Appeal Rights

As required by the *Planning Act*, a notice of the statutory public meeting was provided by advertisement in the *Frontenac News*, 20 days in advance of the public meeting. In addition, the notice was also posted on the Township's website on the Planning Page.

Anyone who attends the public meeting may make verbal comments and/or provide a written submission about the proposed amendment. Also, any person may make written submissions at any time before Council makes a decision on the amendment.

If a person or public body does not make oral submissions at a public meeting, if one is held, or make written submissions to the Township of North Frontenac in respect of the proposed Official Plan Amendment before the approval authority (County of Frontenac) gives or refuses to give approval to the Official Plan Amendment, the person or public body is not entitled to appeal the decision of the approval authority (County of Frontenac) to the Ontario Land Tribunal.

If a person or public body does not make oral submissions at a public meeting, if one is held, or make written submissions to the Township of North Frontenac in respect of the proposed Official Plan Amendment before the approval authority (County of Frontenac) gives or refuses to give approval to the Official Plan Amendment, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Land Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

Anyone wishing to be notified of the approval authority's decision on the subject amendment must submit a request to:

Sonya Bolton, Manager of Community Planning
County of Frontenac
Planning and Economic Development Department

2069 Battersea Road
Glenburnie, ON K0H 1S0
613-548-9400, extension 351
Email: planning@frontenaccounty.ca

Policy Review

Official Plan Amendments are required to be consistent with the Provincial Policy Statement, 2020 and conform to the County of Frontenac Official Plan.

a. Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) provides direction on matters of provincial interest related to land use planning and development. The PPS promotes the wise use and management of resources, efficient land use and development patterns that support strong, liveable, and healthy communities, and the protection of the environment and public health and safety. Under Section 3 of the Planning Act, all municipal decisions regarding planning applications “shall be consistent with” applicable provincial policy.

It is the opinion of planning staff that the Official Plan Amendment being considered is administrative in nature and required to comply with provincial legislation, and as such is consistent with the policies of the PPS.

b. County of Frontenac Official Plan (2016)

The County of Frontenac Official Plan is a framework for guiding development in the County through the management and protection of the natural environment and by providing direction and influence on growth patterns. It is focused on the six themes of economic sustainability, growth management, community building, housing and social services, heritage and culture, and environmental sustainability.

It is the opinion of planning staff that the Official Plan Amendment being considered is administrative in nature and required to comply with provincial legislation, and that it conforms to the general intent of the County of Frontenac Official Plan.

Planning Analysis

Township staff have met with staff from the County and the other three Frontenac townships throughout the fall to discuss how to address their planning processes for the types of applications noted above, to meet the required timelines, and avoid the need to refund fees. The following is a summary of the revised process that was discussed:

- Clearly define what constitutes a complete application, including any formal comments from technical review agencies or third-party peer reviews of studies.

- Restructure the pre-application consultation process so that it includes multiple phases: initial consultation, site visit, and technical review, etcetera, prior to an application being deemed complete.

- Holding an open house for large or complex files (at the discretion of the township), so that the public can provide comments before the application is deemed complete.

- Once all issues have been resolved to the township's satisfaction, the application can be deemed complete and the regular process of scheduling the public meeting (for Official Plan Amendments and Zoning By-Law Amendments), circulating the public notice, preparing the report, etcetera, can proceed.

- Site plan control applications will have to go through the revised pre-application process, but do not require public notice and are now delegated to township staff for approval. The site plan process also allows for conditional approvals, so conditional approval can be issued within the required 60 days, and then the applicant would have to fulfill those conditions prior to the site plan agreement being signed and registered on title.

The proposed Official Plan Amendment outlined in Attachments 1 and 2 addresses the points above by providing enabling policies for the Township to be able to modify their processes for pre-application consultations and complete applications, and to enable the use of delegated authority provided by the province, as suits the municipality.

The Township of North Frontenac Council delegated their authority to staff for site plan control applications, as required by Bill 109, as per By-Law Number 45-22, which was passed on June 30, 2022.

With respect to implementing process changes for complete applications and pre-application consultation, as well as the ability to delegate further authority as per the Planning Act, the County of Frontenac presented Official Plan Amendment Number 2 to their Official Plan to the County Planning Advisory Committee on November 10, 2022. This amendment includes enabling policies in the County Official Plan allowing all townships to incorporate policies in their own official plans about delegated authority, pre-application consultation, and complete applications. The County Official Plan Amendment was approved by County Council on December 21, 2022.

Following the approval of the proposed amendment to the Township Official Plan, planning staff will be continuing their collaborative work with the County and other townships to prepare for the implementation of these new processes, and the following steps will be addressed this winter:

- Finalize the new process/workflow for pre-application consultation for Official Plan Amendments, Zoning By-Law Amendments, and Site Plan Control applications.

- Update fee by-laws to ensure that the fees charged reflect the new process and adequately cover administrative costs associated with processing applications.

- Update pre-application consultation by-laws to ensure that they reflect the revised process.

- Review and update site plan control by-laws to ensure that they reflect the revised process.

- Investigate options for how to best have peer reviews of studies conducted. For example, where a study is not reviewed by an existing agency, would it be beneficial for the township to have a consultant (peer reviewer) on retainer? Would there be benefits to having peer reviewers on retainer for certain studies that would assist all the townships in the County?

Conclusion

It is the opinion of planning staff that the Official Plan Amendment to implement Bills 13 and 109 is consistent with the Provincial Policy Statement and conforms to the general intent of the County of Frontenac Official Plan. Therefore, planning staff are recommending that Council approve Official Plan Amendment Number 1 to the Township of North Frontenac Official Plan and direct the Clerk to forward the amendment to the County of Frontenac for final approval.

Attachments

1. Draft By-Law to Amend the Township of North Frontenac Official Plan (Amendment Number 1) to Implement Bills 13 and 109

2. Excerpt the Township of North Frontenac Official Plan showing Official Plan Amendment Number 1 with track changes

The Corporation of the Township of North Frontenac

By-Law Number 2023-XX

A By-Law to Amend the Township of North Frontenac Official Plan (Amendment Number 1, Provincial Bills 13 and 109)

Whereas the Province of Ontario passed *Bill 13, Supporting Businesses and People Act, 2021*, which includes changes to the *Planning Act* regarding the delegation of authority for minor zoning by-law amendments; and,

Whereas the Province of Ontario passed *Bill 109, More Homes for Everyone Act, 2022*, which includes changes to the *Planning Act* that require the refunding of fees for certain types of planning applications if a decision is not made within the required provincial timeframes; and,

Whereas North Frontenac Council has held a Public Meeting as required by the *Planning Act* on January 13, 2023;

Now Therefore, the Council of The Corporation of the Township of North Frontenac, in accordance with the provisions of Section 17 of the *Planning Act, R.S.O. 1990.c.P.13,* as amended, enacts as follows:

1. The Township of North Frontenac Official Plan is hereby amended by the following changes, which shall constitute Amendment Number 1 to the Township of North Frontenac Official Plan:

    a. **Amend** the text of Section 6.9, Planning Act, of the Township of North Frontenac Official Plan as follows:

        1) Insert a new sub-section 6.9.1., entitled “Complete Applications”.

        2) Renumber existing sub-sections 6.9.1 through 6.9.15 to be sub-sections 6.9.2 through 6.9.16.

        3) Insert the following text as a new sub-section 6.9.1.a.: “The submission of a complete application may include, but not be limited to, the completion of any applicable municipal forms, the payment of all required fees, the submission of studies, reports and drawings, and technical comments on studies, reports and drawings by all relevant departments, agencies, ministries, or third-party peer reviewers.”

        4) The remaining three unnumbered paragraphs in Section 6.9.1 should be numbered as sub-sections “b” through “d”.

        5) In Section 6.9.1.b., amend the fourth sentence by deleting the words “for an Official Plan Amendment, a Zoning By-law Amendment, or Subdivision” and replacing them with the words “involving an approval under the Planning Act”.

6) In Section 6.9.1.b., amend the bullet point list of items by adding a new final bullet point that reads as follows: “Any other studies required by the Township that are not reflected in the above list.”

7) In Section 6.9.1.c., amend the existing sentence by deleting the first word “These” and replacing it with the words “The above”.

8) In Section 6.9.1.c., amend the existing sentence by deleting the words “Official Plan amendment, a Zoning By-law Amendment, or a Plan of Subdivision” and replace it with the words “application for approval under the Planning Act”.

9) Insert the following new policy as sub-section 6.9.1.d.: “Any additional studies or information that is required as part of a complete application under the Planning Act will be at the discretion of the municipality, to ensure that all the relevant and required information pertaining to a development application is available to enable Council or its designated approval authorities to make informed decisions within the prescribed time periods. It also ensures that the public and other stakeholders have access to all relevant information early in the planning process.”

10) Insert the following new policy as sub-section 6.9.1.e.: “All required reports and technical studies will be carried out by qualified persons retained by and at the expense of the proponent. The Township may require a peer review of any report or study by an appropriate public agency or a professional consultant retained by the Township at the proponent’s expense.”

b. **Amend** the text of the Township of North Frontenac Official Plan by inserting a new sub-section 6.9.17, Pre-Application Consultation to Section 6.9, Planning Act, as follows:

6.9.17. Pre-Application Consultation

a. Pre-application consultation is required for all planning applications where the Township is the approval authority. The Township may structure the pre-application consultation process to include multiple stages, where warranted, based on the complexity of the proposal and the type of application. Details regarding the process will be included in a pre-application consultation by-law.

b. The Township may establish pre-application consultation fees to cover staff time to review and assess application information and technical studies prior to declaring an application complete.

c. The Township may require a proponent to hold a public open house as part of the pre-application consultation process, prior to any statutory public meetings required by the Planning Act. The open houses will be

held for large or complex applications and will be at the discretion of the municipality.

d. Where applications require the approval of the County of Frontenac (i.e., Official Plan Amendments), the County will be involved in pre-application consultation and will assist the Township in determining the requirements of a complete application. The County will be engaged early in this process to assist in ensuring any concerns or issues the approval authority may have can be addressed early in the application process.

c. **Amend** the text of the Township of North Frontenac Official Plan by inserting a new sub-section 6.9.18, Delegated Authority to Section 6.9, Planning Act, as follows:

6.9.18 Delegated Authority

a. The Township may delegate its authority for various approval or advisory functions in accordance with the provisions of enabling legislation including the Planning Act, the Municipal Act, and the Ontario Heritage Act.

b. The Township may, by by-law, delegate its authority for various approval or advisory functions to:

- A committee of council; or
- An individual who is an officer, employee, or agent of the municipality.

c. The delegation of applications under the Planning Act does not alter any notice or public meeting requirements or limit appeal rights. It also does not change the requirements under the Planning Act for land use planning decisions to be consistent with the Provincial Policy Statement and to conform or not conflict with provincial plans or the County of Frontenac Official Plan.

d. In receiving and reviewing a planning application, a committee of Council or an appointed officer, employee, or agent, which has been delegated authority, will provide information to the public and host required public meetings in accordance with the Planning Act. Consultation with the applicable Conservation Authority, the County of Frontenac, Parks Canada, provincial Ministries, Indigenous communities, and other applicable public commenting agencies will be completed.

e. Under Section 41(2) of the Planning Act, Council has the authority to put a site plan control by-law in effect for certain lands and types of development within the Township. Section 41(4) of the Planning Act delegates the authority to make decisions on site plan control

applications to an officer, employee, or agent of the municipality as an authorized person.

f. Further to Section 6.9.18.e., the Township may delegate its authority for additional types of planning applications, by by-law, as follows:

    1. Consents (Land Severances), including new lot creation, lot additions, and easements
    2. Validation Certificates
    3. Minor Zoning By-Law Amendments including:
        - A by-law to remove a holding symbol under Section 36 of the Planning Act where the conditions to remove the holding symbol have been met and any required agreements have been executed.
        - A by-law to permit a temporary use under Section 39 of the Planning Act.
        - Zoning By-Law Amendments that are required as a condition of approval of a provisional consent application that received no objections from the public and technical agencies during the required circulation period.

2. The Clerk be authorized and directed to make application to the County of Frontenac for approval of Official Plan Amendment Number 1 for The Corporation of the Township of North Frontenac.

3. This by-law shall come into force and take effect on the date of final passing by the Council of The Corporation of the County of Frontenac, subject to the provisions of the *Planning Act, R.S.O, 1990.c.P.13,* as amended.

Read a first and second time this 13th day of January 2023.

Read a third time and finally passed this 13th day of January 2023.

_____ _____

Mayor Clerk

Township of North Frontenac
Draft Official Plan Amendment Number 1
Implementation of Bills 13 and 109

Excerpt of Section 6, Tools of Implementation, with track changes

6.9 Planning Act (See also Appendix 2)

6.9.1. Complete Applications

a. The submission of a complete application may include, but not be limited to, the completion of any applicable municipal forms, the payment of all required fees, the submission of studies, reports and drawings, and technical comments on studies, reports and drawings by all relevant departments, agencies, ministries, or third-party peer reviewers.

~~a.~~b. The procedures for applications and other matters are dealt with in sequence by section. Council intends to consult with the public prior to making a decision on a planning application. This may be in addition to any required statutory public meeting. Applications for ***development*** ~~for an Official Plan Amendment, a Zoning By-law Amendment, or Subdivision~~involving an approval under the *Planning Act* shall be reviewed for completeness. The Township/approval authority will not consider an application complete or may refuse an application where studies or other information required by this Plan or the *Planning Act* are not submitted as part of the application. These studies or information may include, but are not limited to:

- ☐ A servicing options report
- ☐ A hydrogeological study and terrain analysis or water assessment report including an assessment of the carrying capacity or appropriate density of ***development***
- ☐ A drainage and/or stormwater management report
- ☐ An Environmental Impact Assessment for a natural heritage feature or area
- ☐ An Archaeological Assessment
- ☐ A heritage impact assessment
- ☐ A resource impact report for ***development*** in proximity to a waste management facility, industrial use or mineral/mineral aggregate use including an assessment of impacts within an influence area
- ☐ A traffic study
- ☐ A ***mine hazard*** rehabilitation assessment

- ☐ A contaminated site assessment report (environmental site audit/assessment)
- ☐ A noise and/or vibration study
- ☐ A source protection study including a groundwater impact and/or surface water impact study
- ☐ A MDS I or II calculation
- ☐ A minimum separation distance calculation for an industry, waste management facility, pit or quarry
- ☐ An off-site septage haulage report
- ☐ A geotechnical study
- ☐ A municipal servicing capacity report for water and/or sanitary sewage system
- ☐ A water supply assessment
- ☐ A market study
- ☐ A flood plain management/slope stability report
- ☐ A lake capacity assessment
- ☐ A shoreline capability assessment
- ☐ A boat capacity study
- ☐ A cost-benefit study and/or a justification report for a private lane
- ☐ Any other studies required by the Township that are not reflected in the above list.

c. ~~These~~ The above studies may be in addition to other requirements set out in Ontario Regulations 543/06, 544/06, 545/06 or 547/06. Council/the Approval Authority may refuse to accept an application as complete in the absence of required studies in support of an ~~Official Plan amendment, a Zoning By-law Amendment, or a Plan of Subdivision~~application for approval under the *Planning Act*.

d. Any additional studies or information that is required as part of a complete application under the Planning Act will be at the discretion of the municipality, to ensure that all the relevant and required information pertaining to a development application is available to enable Council or its designated approval authorities to make informed decisions within the prescribed time periods. It also ensures that the public and other stakeholders have access to all relevant information early in the planning process.

e. All required reports and technical studies will be carried out by qualified persons retained by and at the expense of the proponent. The Township may require a peer review of any report or study by an appropriate public agency or a professional consultant retained by the Township at the proponent's expense.

Renumber existing Sections 6.9.1. through 6.9.15 to be Sections 6.9.2 through 6.9.16.

6.9.17. Pre-Application Consultation (NEW SECTION)

a. Pre-application consultation is required for all planning applications where the Township is the approval authority. The Township may structure the pre-application consultation process to include multiple stages, where warranted, based on the complexity of the proposal and the type of application. Details regarding the process will be included in a pre-application consultation by-law.

b. The Township may establish pre-application consultation fees to cover staff time to review and assess application information and technical studies prior to declaring an application complete.

c. The Township may require a proponent to hold a public open house as part of the pre-application consultation process, prior to any statutory public meetings required by the Planning Act. The open houses will be held for large or complex applications and will be at the discretion of the municipality.

d. Where applications require the approval of the County of Frontenac (i.e., Official Plan Amendments), the County will be involved in pre-application consultation and will assist the Township in determining the requirements of a complete application. The County will be engaged early in this process to assist in ensuring any concerns or issues the approval authority may have can be addressed early in the application process.

6.9.18. Delegated Authority (NEW SECTION)

a. The Township may delegate its authority for various approval or advisory functions in accordance with the provisions of enabling legislation including the Planning Act, the Municipal Act, and the Ontario Heritage Act.

b. The Township may, by by-law, delegate its authority for various approval or advisory functions to:

- A committee of council; or
- An individual who is an officer, employee, or agent of the municipality.

c. The delegation of applications under the Planning Act does not alter any notice or public meeting requirements or limit appeal rights. It also does not change the requirements under the Planning Act for land use planning decisions to be consistent with the Provincial Policy Statement and to conform or not conflict with provincial plans or the County of Frontenac Official Plan.

d. In receiving and reviewing a planning application, a committee of Council or an appointed officer, employee, or agent, which has been delegated authority, will provide information to the public and host required public meetings in accordance with the Planning Act. Consultation with the applicable Conservation Authority, the County of Frontenac, Parks Canada, provincial Ministries, Indigenous communities, and other applicable public commenting agencies will be completed.

e. Under Section 41(2) of the Planning Act, Council has the authority to put a site plan control by-law in effect for certain lands and types of development within the Township. Section 41(4) of the Planning Act delegates the authority to make decisions on site plan control applications to an officer, employee, or agent of the municipality as an authorized person.

f. Further to Section 6.9.18.e, the Township may delegate its authority for additional types of planning applications, by by-law, as follows:

    1. Consents (Land Severances), including new lot creation, lot additions, and easements
    2. Validation Certificates
    3. Minor Zoning By-Law Amendments including:
        - A by-law to remove a holding symbol under Section 36 of the Planning Act where the conditions to remove the holding symbol have been met and any required agreements have been executed.
        - A by-law to permit a temporary use under Section 39 of the Planning Act.
        - Zoning By-Law Amendments that are required as a condition of approval of a provisional consent application that received no objections from the public and technical agencies during the required circulation period.