



Muncaster
Environmental
Planning Inc.

June 14, 2021

Mr. Al Roberts
61 Strachan Street
PO Box 1305
Richmond, ON
K0A 2Z0

Dear Mr. Roberts:

**RE: Building Location– 5969 Ottawa Street
Tree Conservation Report and
Environmental Impact Statement/Impact Assessment of Endangered Species**

I have completed a Tree Conservation Report (TCR) and Environmental Impact Statement (EIS), including an impact assessment of endangered species for 5969 Ottawa Street in the southeast portion of the Village of Richmond in Lot 25, Concession 3 of Goulbourn Geographic Township, City of Ottawa. The 2.2 hectare triangular site is on the north side of Ottawa Road, with a railway line along the northwest boundary and commercial and light industrial operations to the east. A tributary of the Jock River, Marlborough Creek, bisects the site, flowing to the northeast to meet the Jock River about 1.2 kilometres to the northeast. For the purposes of this report, Ottawa Street is considered to be in an east-west orientation. As all proposed development will occur in the far east portion of the site, this report focuses on the Marlborough Creek corridor and lands to the east.

The proposed development includes construction of a new two-storey prefabricated building, with a first-floor kennel for four service dogs and personal shop, and a caretaker's residence on the second floor. An enclosed dog run will be at the rear (north portion) of the building. A four metre wide driveway and four parking spaces will service the building, along with a private sewage system proposed to the south of the new building, north of Ottawa Street (Map 1). An existing water well will be utilized. All site disturbances will occur in the east portion of the site, west of Marlborough Creek and the forested setback on the east side of the creek corridor. The area is to be developed is a cultural meadow, which was in active agricultural use until the 1990s, when the existing operations to the east of the site were construction.

Land use in the vicinity of the site includes low density village residential to the north and west and agricultural lands to the east and south, with former agricultural fields to the southwest.

Site Context

The site is zoned *Rural General Industrial* (RG3) and designated *Village* on Schedule A of the Official Plan. There are no lands designated *Rural Natural Features* or *Natural Environment Area* in proximity to the site. The floodplain of Marlborough Creek extends approximately 40 – 45 metres to the east of the channel (see purple line on Map 1). Other than the floodplain, there are no components of the City’s Natural Heritage System, as shown on the Schedule L2 Overlay of the Official Plan, in the vicinity of the site. The Richmond Fen is the closest Provincially Significant Wetland and Provincial Life Science Area of Natural and Scientific Interest. The closest portion of the Richmond Fen is approximately 2.7 kilometres to the southwest of the site. Unevaluated wetlands, as mapped on geoOttawa, are shown along the Marlborough Creek corridor. There are no Natural Areas, as identified in the former Region of Ottawa-Carleton’s Natural Environment System Strategy, in proximity to the site, with a west edge of the Marlborough Forest Natural Area approximately 1.1 kilometres to the southwest of the site (White, 1997). The site is within a wellhead protection area, with a moderate vulnerability score, as mapped on Schedule K of the Official Plan.

There are no mapped sensitive fish habitats along Marlborough Creek, as shown on Figure 3-6-4 of the Existing Conditions Report of the Jock River Reach 2 and Mud Creek Subwatershed Study (MMM, 2005). At the Ottawa Street crossing, the index of biotic integrity of the creek was considered fair based on sampling of the benthic community (Figure 3-6-6 of MMM, 2005). There is no natural vegetation shown for the proposed development area on Figures 3-7-1 and 3-7-9 of MMM (2005). The east portion of the site is shown as ‘Cultural vegetation within 100 metres of wetland edge’ on Figure 3-7-7 of MMM (2005), with a marsh wetland identified along Marlborough Creek south of Ottawa Street. Trees are shown on the Marlborough Creek corridor on Figure 3-7-12 of MMM (2005). No forest interior habitat, forests older than 50 years, wetlands, rare vegetation/landform types, and Areas of Natural and Scientific Interest are identified on or adjacent to the site on Figures 3-7-3, -4, -5, -8, and -10 of MMM (2005).

Methodology

This report focuses on potential use by Species of Risk of the building area and adjacent lands, determines whether wetland habitat is present within 30 metres of the building area, and assesses tree retention and protection of adjacent trees to be retained. This EIS was prepared in accordance with Section 4.7.8 of the City of Ottawa Official Plan following the EIS Guidelines, with guidance from the Natural Heritage Reference Manual (OMNR, 2010). The field survey and this report were completed by Bernie Muncaster, who has a Master’s of Science in Biology and over thirty-three years of experience in completing natural environment assessments. Michelle Muncaster assisted with the field survey.

The EIS will provide the methodology to mitigate as required negative impacts on significant features and functions. Potential Species at Risk in the general area were identified from Ministry of Natural Resources and Forestry databases, the Ontario Breeding Bird Atlas, Ontario Reptile and Amphibian Atlas, other assessments completed in the area, and Species at Risk reported for the overall City of Ottawa.

The natural environment features of the site and adjacent lands were reviewed from 10:30 to 12:15 on June 4th, 2021, under partly cloudy skies, light air, and an air temperature of 22° C. The study was completed by systematically travelling through the proposed building area and adjacent lands, and completing a description of the lands based on the vegetation component of the Ecological Land Classification for Southern Ontario.

Existing Conditions

The site is generally level, with a gentle slope towards Marlborough Creek. Soils on the site are mapped as poorly-drained silty loams, with an eroded channel noted along Marlborough Creek (Schut and Wilson, 1987). This description is consistent with field observations. Marlborough Creek is a permanent watercourse up to 18 metres wide on the site (Photo 7). No other channels with aquatic habitat potential were observed in the east portion of the site. There was no potential aquatic habitat observed in the roadside swale on the north side of Ottawa Street.

Cultural Meadow

All site disturbances will take place within a cultural meadow dominated by mowed bluegrass, with common dandelion, white clover, red clover, and common plantain also present (Photos 1 and 2). This area was an agricultural field until the 1990s. A gravel bed for the driveway and parking area is in place. All trees along the edge of the cultural meadow habitat will be maintained, including basswood and lindens up to 35cm diameter at breast height (dbh).

Upland Ash Deciduous Forest

The forest to the west of the open development area and Marlborough Creek is an upland ash deciduous forest (Photo 3). White ash up to 40cm dbh dominate, with many of the ash heavily impacted by the emerald ash borer and dead (Photo 5). Manitoba maple is common at the south end of the forest, north of Ottawa Street. Most of the Manitoba maple are coppice (multi-stem) with the largest stems up to 38cm dbh. Bur oak, white elm, and red maple are also present, with the largest of these species in the 30cm to 36cm dbh range. Wind throw is extensive in the forest (Photo 4). Selective logging appears to have historically occurred throughout the forest.

The understory of the upland ash deciduous forest is thick with extensive growth of glossy buckthorn, common buckthorn, prickly ash, prickly gooseberry, highbush cranberry, and tartarian honeysuckle shrubs. Regenerating Manitoba maple and ash stems are also present. The ground flora of the deciduous forest has a heavy non-native influence, including field horsetail, small enchanter's nightshade, Canada goldenrod, common strawberry, yellow violet, Philadelphia fleabane, tall meadow rue, wild parsnip, common milkweed, dame's rocket, wild grape, and thicket creeper.

No wetland habitat appeared to extend east into the forests from the Marlborough Creek corridor.

Reed Canary Grass Meadow Marsh

The wetland meadow marsh adjacent to Marlborough Creek extends for up to twelve metres east of the creek in the north-central portion of the site (Photos 6 and 7). In addition to reed canary grass, fowl manna grass, Canada bluestem, purple loosestrife, Canada goldenrod, spotted jewelweed, joe-pye-weed, marsh horsetail, water plantain, Canada anemone, and red-osier dogwood are also in the meadow marsh.

Wildlife observed during the early June field survey included black-capped chickadee, American crow, American redstart, American robin, red-winged blackbird, common grackle, and song sparrow. In addition, green frog, green heron, common yellowthroat, Midland painted turtle, eastern phoebe, and old beaver cuttings were noted along the Marlborough Creek corridor. No potential cavity trees were observed in the deciduous forest west of the proposed building area. No evidence of raptor utilization was observed and stone fences and exposed fissured rock, which could be used by snakes and other wildlife, are not present.



*Photo 1 – Proposed building location. Trees in the rear of the photo will be retained.
View looking northeast*



Photo 2 – Another look at the proposed building location. View looking south to Ottawa Street



*Photo 3 – Upland ash deciduous forest to the west of the proposed building area.
View looking southwest*



*Photo 4 – Windthrow is common in the adjacent upland deciduous forest.
View looking south*



Photo 5 – Many of the ash trees are dead or in poor condition in the adjacent upland deciduous forest. View looking west



Photo 6 – Meadow marsh on the east side of Marlborough Creek. View looking west



Photo 7 – Meadow marsh with Marlborough Creek. View looking southwest

Significant Wildlife Habitat

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNRF (2015). No flora, fauna, or ecological conditions were observed in the field survey in the immediate vicinity of the proposed building location that would trigger a significant wildlife habitat designation with respect to the ELC communities present. For example, no wetland habitat is present on the proposed building location, with the meadow marsh at its closest point approximately 55 metres to the west of the proposed building (the driveway will be about 35 metres to the east of the meadow marsh along the east side of Marlborough Creek at the closest point). The elevation of the meadow marsh is higher than the creek channel and no features of note appear directly associated with the meadow marsh, though it provides an important buffer to the creek. Marlborough Creek likely provides significant wildlife habitat with respect to amphibians and perhaps turtles. The Marlborough Creek corridor does not appear large enough to represent suitable habitat for waterfowl stopover and staging areas or colonial nesting bird breeding habitat. Other examples of seasonal concentration were not present on the site. No rare or specialized habitat including alvars, areas of broken and fissured rock, or seeps or springs were observed on or adjacent to the lands proposed for development. The deciduous forest does not appear to support raptor wintering areas and forest interior habitat or old growth forest are not present. No potential wildlife cavity trees were observed.

The existing linkage functions associated with the site would focus on the Marlborough Creek corridor. Due to existing commercial and light industrial operations to the east and existing residences and large agricultural fields to the south, the proposed building location is not anticipated to represent an important linkage function east from the Marlborough Creek corridor.

Significant Woodlands

The deciduous forest does not extend beyond the site. The forest lacks forest interior habitat and the overall size of 0.5 hectares is far too small for the forest to be considered significant woodlands. The forest does not have other attributes such as large tree structure, social or economic features, or rare communities, to meet applicable criteria for significant woodlands.

The forest does provide local wildlife habitat and associated climate and air quality benefits. As assessed below, it is not anticipated that building in the meadow habitat to the east will impact the on-site forest, provided the mitigation measures outlined below are properly implemented.

Species at Risk

No Species at Risk were observed during the June field survey. The MNRF's Make a Map: Natural Heritage Areas website was reviewed on May 17th, 2020. This site allows for a search of threatened and endangered species covered by the 2008 *Endangered Species Act*, as well as other species of interest. A search was conducted on the 1 km square including the site and adjacent areas (18VR30 - 54). Three Species at Risk, barn swallow, eastern meadowlark, and bobolink) were recorded for this square, along with two species of special concern, wood thrush and snapping turtle. The breeding birds listed in the Ontario Breeding Bird Atlas for the 10 km square 18VR30 identified bank swallow, barn swallow, eastern meadowlark, and bobolink as

Species at Risk in the overall 10 km square including the site and this portion of Ottawa. Bobolink and eastern meadowlark utilize large grassland areas including hayfields. The meadow habitat is far too small at less than 0.3 hectares and lacks interior habitat to represent potential nesting habitat for these grassland species. Bank swallow is a colonial nester; burrowing in eroding silt or sand banks and sand pit walls, features not observed on or adjacent to the site. There are no structures on the site that may be used for nesting by barn swallow or chimney swift. No potential cavity trees for use by bats were observed on or adjacent to the recommended building location and associated access.

Eastern whip-poor-will utilizes rock or sand barrens with scattered trees, savannahs, old burns or other disturbed sites in a state of early to mid-forest succession, or open conifer plantations. The on-site forest is too small and the understory is too thick to provide suitable habitat for this species, which was not reported in the Breeding Bird Atlas for the overall 10km square including the site and general area.

Snapping turtle and Blanding's turtle, a threatened Species at Risk, were identified in the Ontario Reptile and Amphibian Atlas for the overall 10km square 18VR30 that includes the site and general area. Blanding's turtle is known from the Jock River corridor in the Richmond area. Marlborough Creek appears to provide suitable turtle habitat but there are no wetlands in the east portion of the site or to the east of the site that a turtle may be migrating to from Marlborough Creek via the area of the proposed building location. No site disturbances will occur within a minimum of 35 metres east of the wetland habitat. This will ensure no disturbances within all Category 2 Blanding's turtle habitat, which extends 30 metres east of the east boundary of suitable turtle habitat. As Category 3 Blanding's turtle habitat extends 220 metres from the east edge of the Category 2 Blanding's turtle habitat, all of the proposed building location and other site disturbances will be within Category 3 Blanding's turtle habitat per the General Habitat Description. However, there is no adjacent wetland habitat to which Blanding's turtle may utilize the site to reach suitable habitat to the east. No suitable turtle nesting habitat was observed in the vicinity of the proposed development area. A loss of approximately 0.13 hectares of Category 3 habitat is projected, though the migrating function of Category 3 habitat is not anticipated for the site and the area is highly developed immediately to the east of the site.

No aquatic Species at Risk are reported for this portion of the Jock River watershed in the database maintained by the Department of Fisheries and Oceans (<http://www.dfo-mpo.gc.ca/species-especies/sara-lep/map-carte/index-eng.html>).

Butternut, an endangered species, is present in many areas of Ottawa but none was observed on or adjacent to the recommended building location and associated access. Other potential Species at Risk reported in the City of Ottawa were also reviewed, including American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, bobolink, chimney swift, eastern meadowlark, barn swallow, bank swallow, little brown myotis, northern long-eared bat, hickorynut, whip-poor-will, bald eagle, golden eagle, least bittern, eastern cougar, lake sturgeon, cerulean warbler and American eel. The habitat requirements of these species along with those listed as special concern were reviewed.

In summary, butternut appears to be the only Species at Risk to have the potential to utilize the lands proposed for development, with Blanding's turtle habitat present in the adjacent area. No butternuts were observed on or within 50 metres of the lands proposed for development. Mitigation measures are presented below to protect the adjacent wetland and Marlborough Creek corridor to the east, which will also protect the Category 2 Blanding's turtle habitat.

Impact Analysis and Recommendations

No natural heritage features, as identified in the Provincial Policy Statement and OMNR (2010), were observed or are anticipated for the lands proposed for development, including the new building, driveway, parking area, and other services. Fish habitat is present in Marlborough Creek, along with potential Blanding's turtle habitat. No channels with aquatic habitat potential were observed in the vicinity of the proposed building location east of Marlborough Creek.

All site disturbances will be greater than 30 metres from Marlborough Creek and adjacent wetland habitat and outside of the Category 2 Blanding's turtle habitat. All site disturbances will also be to the east of the floodplain associated with Marlborough Creek. No indirect impacts on the Marlborough Creek corridor, including the meadow marsh and channel, are anticipated given the distance the proposed building location will be from the corridor and the flat, permeable vegetated lands in which any surface runoff will infiltrate well before reaching the corridor. No site disturbances will occur within a minimum of 35 metres east of the wetland habitat. This will ensure no disturbances within all Category 2 Blanding's turtle habitat, which extends 30 metres east of the east boundary of suitable turtle habitat. A loss of approximately 0.13 hectares of Category 3 Blanding's turtle habitat is projected, though the migrating function of Category 3 habitat is not anticipated for the site and the area is highly developed immediately to the east of the site. There is no adjacent wetland habitat to which Blanding's turtle may utilize the site to reach suitable habitat to the east.

No tree removal will be required for the proposed development. The base for the driveway and parking area is in place. No impacts are anticipated on the critical root zones of the trees to the west which are greater than five metres from the proposed building location.

Potential impacts during construction of the new building and associated services include impacts on wildlife from additional noise and dust, increased erosion and release of sediments and other potential contaminants, and harm to wildlife remaining in the work area during construction. The following mitigation measures are recommended to address these potential impacts during construction and operation of the new building:

1. Sturdy protective fencing, at least 1.3 metres in height, is recommended around the work area to protect adjacent trees and to isolate the work area from sensitive wildlife. The protective fencing is to be installed at the outer limits of the critical root zone (ten times trunk diameter) of the retained trees. For the proposed building location, to protect adjacent trees to be retained, no excavations or other changes in the existing surface elevations are to occur within five metres of the deciduous forest to the west;
2. No stockpiling or heavy machinery traffic is to occur outside of the fenced in work area to protect the critical root zone of the adjacent woody vegetation to be retained;

3. Though not anticipated, removal of any tree is to occur outside of the April 15th to August 15th period for the protection of breeding birds, unless a survey conducted by a qualified biologist within five days of the vegetation removal identifies no breeding activity;
4. Any turtles or snakes observed in the vicinity of the work area or that may otherwise be in danger are to be safely relocated to the Marlborough Creek corridor to the west. Animals should be moved only far enough to ensure their immediate safety and any handling of Species at Risk during construction for safe relocation purposes should be done by individuals who are properly trained to do so and have Ministry approval. See Appendix 1 and the links in Section 4 of City of Ottawa (2015) for suggestions on how to effectively relocate turtles and snakes;
5. Proper sediment and erosion controls are required during construction of the new building and associated services;
6. Any landscaping is to use only locally appropriate native species. This is not meant to exclude vegetable gardens or non-invasive ornamental plantings adjacent to the new building;
7. To discourage wildlife from entering the work areas during construction, the construction site is to be kept clear of food wastes and other garbage, and proper drainage provided to avoid accumulation of standing water, which could attract amphibians, birds, and other wildlife to the work areas;
8. All construction activity will occur during daylight hours;
9. Outdoor lighting is to be kept to a minimum;
10. Pets are to be controlled at all times;
11. Municipal by-laws and provincial regulations for noise will be followed and utilities will be located as required in the vicinity of the site prior to construction. Waste will be managed in accordance with provincial regulations;
12. The contractor will have a spill kit on-hand at all times in case of spills or other accidents;
13. The extent of exposed soils is to be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas is to be achieved as soon as possible; and,
14. Roof runoff should be directed to rain barrels, grass, or other permeable surfaces.

In addition, many helpful wildlife-oriented mitigation measures are detailed in the City's *Protocol for Wildlife Protection during Construction* (City of Ottawa, 2015). Contractors are to review in detail and understand the *Protocol for Wildlife Protection during Construction* prior to commencement of construction. The contractor is to be aware of the potential Species at Risk in the vicinity of the site including butternut and Blanding's turtle. Appendix 1 of City of Ottawa (2015) describes these species. Bernie Muncaster (613-748-3753) is the project biologist for this development. Any Species at Risk sightings are to be immediately reported to the Ministry of the Environment, Conservation and Parks and work that may impact the species suspended immediately.

As recommended in City of Ottawa (2015), prior to beginning work each day, the work areas are to be checked for wildlife by conducting a thorough visual inspection of the work space and immediate surroundings. See Section 2.5 of the City's *Protocol for Wildlife Protection during Construction* (City of Ottawa, 2015) for recommendations on construction site management.

Conclusion

The proposed development includes construction of a new two-storey prefabricated building, with a first-floor kennel for four service dogs and personal shop, and a caretaker's residence on the second floor. A four metre wide driveway and four parking spaces will service the building, along with a private sewage system and an existing water well.

The proposed building location is in a cultural meadow and no trees are anticipated to be removed. No site disturbances will occur within a minimum of 35 metres east of Marlborough Creek and associated wetland meadow marsh habitat. This will protect the aquatic habitat in the creek and ensure no disturbances within all Category 2 Blanding's turtle habitat. A loss of approximately 0.13 hectares of Category 3 habitat is projected, though the migrating function of Category 3 habitat is not anticipated for the site and the area is highly developed immediately to the east of the site. There is no adjacent wetland habitat to which Blanding's turtle may utilize the site to reach suitable habitat to the east.

This EIS concludes that it is the professional opinion of the author that the construction and operation of the new building and associated infrastructure will not have a negative impact, as defined in the Provincial Policy Statement, on the significant natural heritage features and functions of the area, including the aquatic habitat of Marlborough Creek and potential turtle utilization of the creek corridor, providing the above recommended mitigation measures are properly implemented.

References

City of Ottawa. 2015. Protocol for Wildlife Protection during Construction. August, 2015. 14 pp & Append.

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Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. 2nd Edition. March 2010. 233 pp.

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Schut, L.W. and E.A. Wilson. 1987. The soils of the Regional Municipality of Ottawa-Carleton (excluding the Ottawa Urban Fringe). Report No. 58 of the Ontario Institute of Pedology.

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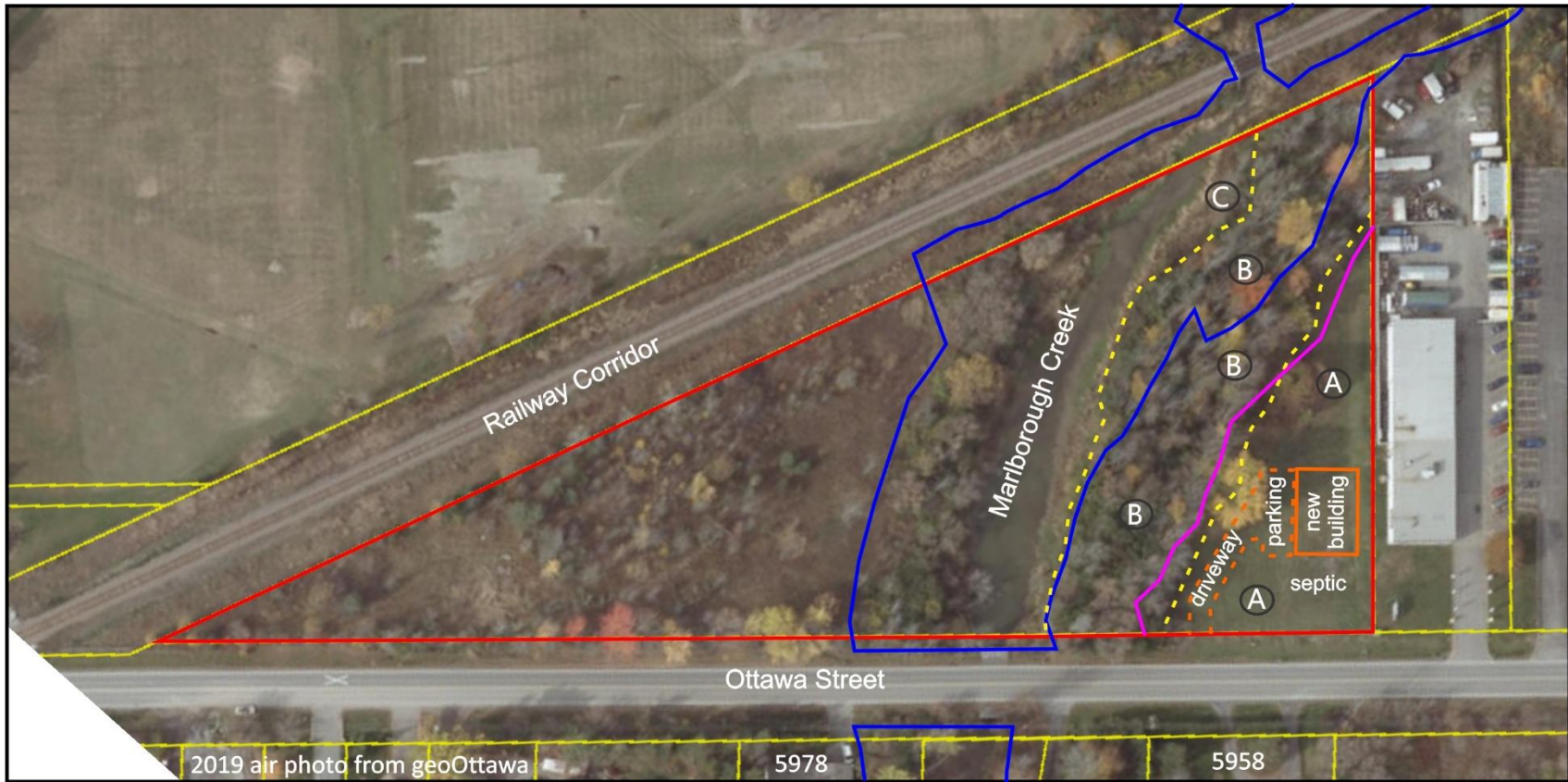
Please call if you have any questions on this EIS.

Yours Sincerely,
MUNCASTER ENVIRONMENTAL PLANNING INC.



Bernie Muncaster, M.Sc.
Principal

5969 Ottawa



Legend

- Overall Site
- Vegetation Communities
- Unevaluated Wetland per geoOttawa
- 100 year Floodplain

Vegetation Communities

- A Cultural Meadow
- B Upland Ash Deciduous Forest
- C Reed Canary Grass Meadow Marsh

Approx. Scale 1:1,750



Map 1

FILE: 21 - 08

June 7, 2021

Prepared for:

AL ROBERTS

Prepared by:



Muncaster
Environmental
Planning Inc.

CURRENT VEGETATION and NATURAL ENVIRONMENT FEATURES

**5969 Ottawa Street
Richmond, City of Ottawa**

MAP 2 – PROPOSED CONSERVED VEGETATION

Note – as no trees are proposed for removal no Map 2 has been produced. All trees shown on Map 1 will be retained