McKINLEY
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SOLUTIONS

Combined Environmental Impact Statement & Tree Conservation Report
400 Hunt Club Road, Ottawa, Ontario

May 2021

Prepared for Novatech Engineers, Planners, and Landscape Architects

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LIST OF FIGURES

LIST OF APPENDICES

EXECUTIVE SUMMARY

McKinley Environmental Solutions (MES) was retained by Novatech Engineers, Planners and Landscape Architects (Novatech) to prepare a Combined Environmental Impact Statement and Tree Conservation Report to support the proposed development of the Site. The Site is located at 400 Hunt Club Road, Ottawa (Part of Lot 6, Concession 2 from Rideau River, Geographic Township of Gloucester). The Site is approximately 1.25 ha (3.1 acres) in size and predominantly consists of a Red Pine Plantation, which is part of a larger woodlot. The Red Pine Plantation extends to the west beyond the Site, whereas the area to the south of the Site includes a regrowth deciduous forest. Hunt Club Creek is located east of the Site, beyond which is the Otto's BMW Car Dealership. Hunt Club Road is located north of the Site.

The Site is proposed to be developed to include a parking lot and storage yard which will service the adjacent Otto's BMW Car Dealership (located to the east of the Site). The storage yard and parking lot are proposed to be developed in two (2) phases. The storage yard and parking lot will provide both storage parking spaces and employee parking spaces. Hunt Club Creek is located east of the Site. A 15 m wide setback will be maintained from Hunt Club Creek. Existing vegetation within the 15 m wide setback will be retained. The 15 m wide setback will match the width of the setback (e.g. 15 m) which was approved for the opposite side of the watercourse in 2016. A watercourse crossing will be required to connect the Site to the existing Otto's BMW Car Dealership. The watercourse crossing will include three (3) 1800 mm CSP culverts, which are anticipated to be large enough to allow the passage of fish. Stormwater runoff from the Site will be directed to grassed perimeter swales and granular infiltration trenches, which will infiltrate the majority of the runoff from the Site. The stormwater management system will include an outlet to Hunt Club Creek.

The Site falls within the City of Ottawa's Natural Heritage System Overlay. However, the Red Pine Plantation is an artificial vegetation community which does not qualify as part of a Significant Woodlot under either the City of Ottawa's criteria for the urban area and/or the provincial assessment criteria. The Red Pine Plantation is not considered an ecologically significant feature, and therefore the tree clearing associated with the proposed development is not anticipated to result in significant negative impacts to the natural features and functions of the Site. No unevaluated wetlands, Provincially Significant Wetlands, and/or Areas of Natural and Scientific Interest (ANSIs) occur within the Site and/or within 120 m of the Site. No significant Species at Risk (SAR) habitat features and/or Significant Wildlife Habitat features have been identified within the Site and/or adjacent to the Site. The regrowth deciduous forest found to the south of the Site is shown to be part of the Greenbelt. Tree protection measures are proposed in order to ensure the retention of trees on properties found adjacent to the Site, including the adjacent Greenbelt lands. Pending that

the regulatory, mitigation, and avoidance measures outlined in this report are implemented appropriately, the development of the Site is not anticipated to have a significant negative effect on the natural features and functions.

1.0 INTRODUCTION

1.1 Reading the Integrated Tree Conservation Report (TCR)

This report is presented as a Combined Environmental Impact Statement (EIS) and Tree Conservation Report (TCR). Readers who are principally interested in the TCR may choose to read only those portions of the report where the section headings are marked **(TCR)**. This includes Sections 1.3, 1.4, 1.6, 2.0.1, 3.2, 3.3, and 4.1. Readers who are interested in the EIS should read the entire report, as information included in the TCR sections is not reiterated.

1.2 Scoping the Environmental Impact Statement

This Combined Environmental Impact Statement (EIS) and Tree Conservation Report (TCR) was undertaken following the City of Ottawa's Environmental Impact Statement Guidelines. Following the City guidelines, the Environmental Impact Statement includes the following:

- Documentation of existing natural features on and around the Site;
- Identification of potential environmental impacts of the project;
- Recommendations of ways to avoid and reduce any negative impacts; and
- Recommendations of ways to enhance natural features and functions.

This Combined EIS and TCR was prepared with guidance from the *Natural Heritage Reference Manual* (OMNRF 2010). The major objective of the Combined EIS and TCR is to assess whether the proposed project will negatively affect the significant features and functions of the Site, and to ensure that impacts will be minimized through mitigation measures.

1.3 Site Overview and Background (TCR)

The Site is located at 400 Hunt Club Road, Ottawa (Part of Lot 6, Concession 2 from Rideau River, Geographic Township of Gloucester) (Refer to Figure 1). The Site is approximately 1.25 ha (3.1 acres) in size and predominantly consists of a Red Pine Plantation, which is part of a larger woodlot. The Red Pine Plantation extends to the west beyond the Site, whereas the area to the south of the Site includes a regrowth deciduous forest. Hunt Club Creek is located east of the Site, beyond which is the Otto's BMW Car Dealership. Hunt Club Road is located north of the Site. As described below in Section 3.5, the Site falls within the City of Ottawa's Natural Heritage System Overlay (City of Ottawa 2014). The regrowth deciduous forest found to the south of the Site is shown to be part of the Greenbelt (City of Ottawa 2020).

1.4 Description of Undertaking (TCR)

The Site Plan is included below. The Site is proposed to be developed to include a parking lot and storage yard which will service the adjacent Otto's BMW Car Dealership (located to the east of the Site). The storage yard and parking lot are proposed to be developed in two (2) phases. Ultimately, the storage yard and parking lot will provide both storage parking spaces and employee parking spaces. Hunt Club Creek is located east of the Site. A 15 m wide setback will be maintained from Hunt Club Creek. Existing vegetation within the 15 m wide setback will be retained. The 15 m wide setback will match the width of the setback (e.g. 15 m) which was approved for the opposite side of the watercourse in 2016. A watercourse crossing will be required to connect the Site to the existing Otto's BMW Car Dealership. The watercourse crossing will include three (3) 1800 mm CSP culverts, which are anticipated to be large enough to allow the passage of fish. Stormwater runoff from the Site will be directed to grassed perimeter swales and granular infiltration trenches, which will infiltrate the majority of the runoff from the Site (JFSA 2021). The stormwater management system will include an outlet to Hunt Club Creek.

FIGURE 1: SITE OVERVIEW

Combined Environmental Impact Statement & Tree Conservation Report
400 Hunt Club Road, Ottawa

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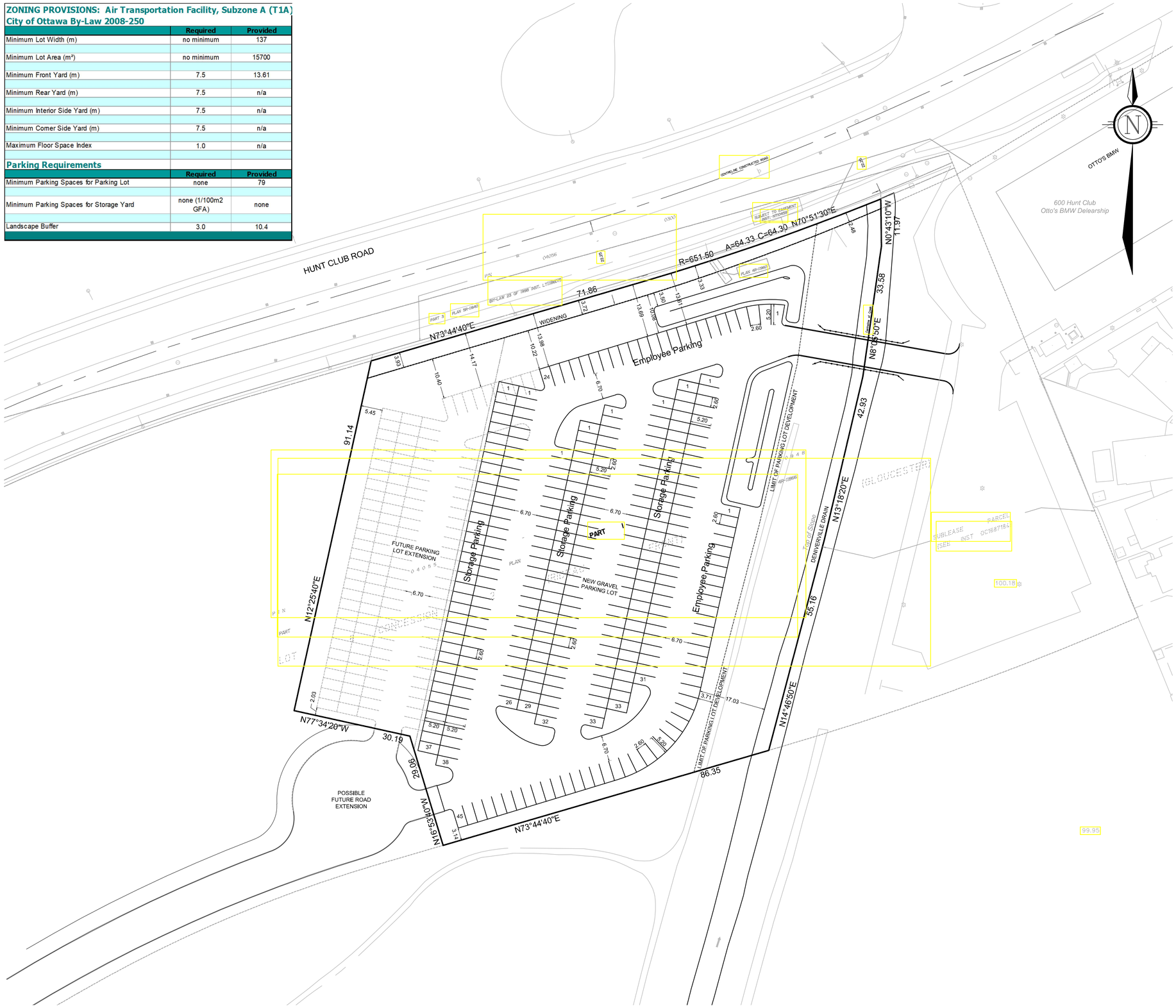
Please Note: This is not a legal land survey. All dimensions and locations are shown as approximate.

ZONING PROVISIONS: Air Transportation Facility, Subzone A (T1A)
City of Ottawa By-Law 2008-250

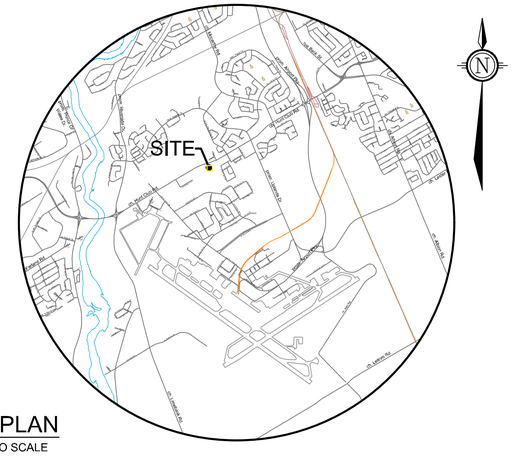
	Required	Provided
Minimum Lot Width (m)	no minimum	137
Minimum Lot Area (m²)	no minimum	15700
Minimum Front Yard (m)	7.5	13.61
Minimum Rear Yard (m)	7.5	n/a
Minimum Interior Side Yard (m)	7.5	n/a
Minimum Corner Side Yard (m)	7.5	n/a
Maximum Floor Space Index	1.0	n/a

Parking Requirements

	Required	Provided
Minimum Parking Spaces for Parking Lot	none	79
Minimum Parking Spaces for Storage Yard	none (1/100m2 GFA)	none
Landscape Buffer	3.0	10.4



NOTE:
THIS PLAN HAS BEEN COMPILED USING LEGAL INFORMATION OBTAINED FROM
ANNIS, O'SULLIVAN VOLLEBEKK LTD., ONTARIO LAND SURVEYORS
PRELIMINARY PLAN OF SURVEY(4R-xxxx); DATED APRIL 23, 2021
JOB No. 20433-21



KEYPLAN
NOT TO SCALE

SITE PLAN

400 HUNT CLUB ROAD

PART OF LOT 6
CONCESSION 2 (RIDEAU FRONT)
Geographic Township of Gloucester
CITY OF OTTAWA

0 5 10 15 20 25 50 metres

SCALE 1:500

No.	REVISION	DATE	BY
1	ISSUED FOR SITE PLAN APPLICATION	X	RP

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

ISSUED
APRIL, 2021

PROJECT No.
111177

DRAWING No.
111177-SP

M:\2021\111\111177\CAD\Planning\Site Plans\111177-SP.dwg, SP-A1, Apr 29, 2021 - 1:10pm, wsloss

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#xxxxx

1.5 Agency Consultation

A pre-consultation meeting was held with the City of Ottawa. The pre-consultation comments were reviewed prior to the preparation of this Combined Environmental Impact Statement and Tree Conservation Report. The Rideau Valley Conservation Authority (RVCA) will be circulated as part of the development review and approval process. The Ontario Ministry of Natural Resources and Forestry (OMNRF) Kemptville District *Potential Species at Risk List for the Geographic Township of Gloucester* (Appendix A) is referenced below in Section 3.7. As described in greater detail below, no significant Species at Risk (SAR) concerns were identified. As such, the proposed development should not require submission to the Ministry of Environment, Conservation, and Parks (MECP) for review under the Ontario Endangered Species Act.

1.6 Regulatory Requirements (TCR)

The following is a summary of the anticipated natural heritage regulatory requirements:

- **Ontario Endangered Species Act (ESA):** The potential presence of Species at Risk (SAR) and their habitat is discussed below in Section 3.7. As described in Section 3.7, no significant SAR concerns have been identified. As such, the proposed development should not require review under the Ontario Endangered Species Act.
- **Ontario Regulation 153/06:** Ontario Regulation 153/06 regulates activities that would alter shorelines, watercourses, and wetlands. As described below in Section 3.4, there are no wetland and/or watercourse features within the Site. The proposed 15 m wide setback from Hunt Club Creek is anticipated to be sufficient to avoid any significant impacts to the watercourse (Refer to Section 4.2.1). However, the installation of a new watercourse crossing is anticipated to require review and authorization by the Rideau Valley Conservation Authority (RVCA) under O.Reg 153/06.
- **Fisheries Act:** As described below in Section 3.4.1, Hunt Club Creek is a highly degraded watercourse which provides very limited fish habitat functions. As described in Section 4.2.1, the proposed watercourse crossing will include three (3) 1800 mm CSP culverts, which are anticipated to be large enough to allow the passage of fish. Construction stage mitigation measures are discussed in Section 4.4.2. The installation of the new culverts is not anticipated to result in significant disturbance to the fish habitat and/or a significant loss of fish habitat. The installation of relatively small watercourse crossings (e.g. small culverts) does not typically require authorization under the Fisheries Act. However, it should be noted that due to recent changes to the Fisheries Act, Fisheries and Oceans Canada has withdrawn their previously published code of practice for culvert installation. In the absence of a published code of practice, Fisheries and Oceans Canada has advised that new culverts are temporarily subject to review

under the Fisheries Act. However, Fisheries and Oceans Canada has communicated that a new code of practice for culvert installation is in development. It is anticipated that once the new code of practice has been published, this will likely remove the need for small culverts to be reviewed by Fisheries and Oceans Canada. If the new code of practice is available prior to the commencement of construction, the new code of practice will be followed, in which case a review under the Fisheries Act is unlikely to be required. However, if the new code of practice is not available prior to the commencement of construction, the new culverts may require review under the Fisheries Act. The potential requirement for a review under the Fisheries Act should be re-evaluated prior to construction. Regardless of whether or not a review under the Fisheries Act is required, ultimately it is anticipated that an authorization under the Fisheries Act is unlikely to be required.

- **Tree Removal Permit:** The City of Ottawa will require obtainment of a Tree Removal Permit under the Urban Tree Conservation By-law No. 2009-200 prior to the commencement of tree clearing.

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2.0 METHODOLOGY

2.0.1 Vegetation Survey and Tree Inventory Methodology (TCR)

A Site visit to inventory plants and measure tree sizes was completed by Dr. McKinley on December 3rd, 2020. Weather conditions during the Site visit included overcast skies and a temperature of 4 ºC. During the December 3rd Site visit, the Site was predominantly free of snow cover. Groundcover within the Site was previously assessed during a Site visit completed on June 18th, 2015.

The following terms are used throughout this report:

- Diameter at Breast Height (dbh) means the measurement of the trunk of a tree at a height of 120 cm above grade for trees 15 cm diameter or greater, and at a height of 30 cm above grade for trees less than 15 cm diameter.
- The Critical Root Zone (CRZ) is 10 centimeters from the trunk of the tree for every centimeter of trunk dbh. The CRZ is calculated as dbh x 10 cm.

Vegetation communities within the Site were classified following the vegetation community labels described by the Ecological Land Classification (ELC) manual (OMNRF 1998; Lee 2008). Due to the uniform nature of tree cover throughout the Site (e.g. planted Red Pines), tree sampling plots were not required. Instead, representative trees were measured throughout the Site. Trees were measured with a D-tape, which is a calibrated dbh tape.

2.0.2 Environmental Impact Statement Methodology

The presence of natural heritage features was assessed by completing the following:

- A Site visit to describe vegetation communities and inventory trees (see above);
- A Site visit to assess the potential for the habitat of Species at Risk (SAR), wetlands, fish habitat, Significant Wildlife Habitat (SWH) features, and other significant habitat features to be present;
- Examination of aerial imagery to evaluate landscape features;
- Natural Heritage Information Center (NHIC) database review (OMNRF 2020);
- Review of the Ontario Ministry of Natural Resources and Forestry (OMNRF) *Potential Species at Risk List for the Geographic Township of Gloucester* (Appendix A); and
- Review of Official Plan designations.

During the plant survey, the Site was searched for endangered Butternut Trees (none were found).

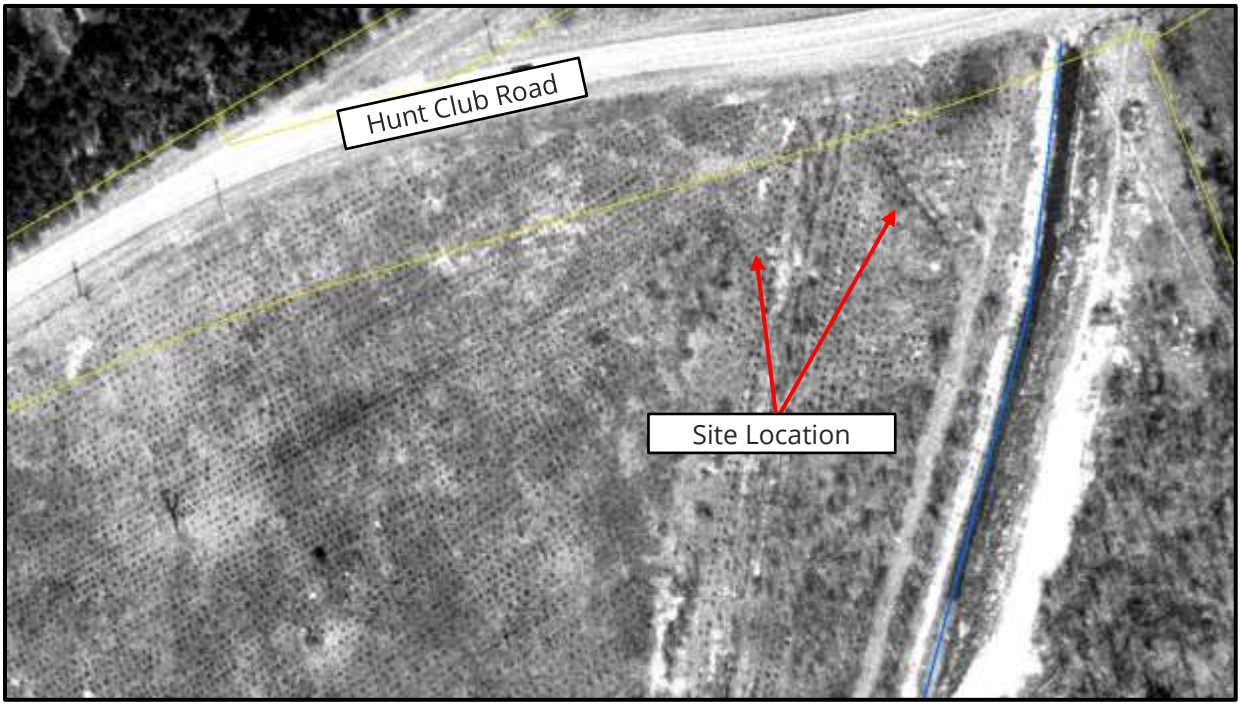
3.0 EXISTING CONDITIONS

3.1 Geological Conditions

The Site elevation is approximately 101 m Above Sea Level (ASL) at the northwestern corner of the Site (adjacent to Hunt Club Road). The Site includes a gradual slope to the east, reaching approximately 99 m ASL at the top of the western bank of Hunt Club Creek. Sandy soils were observed at the surface throughout the Site.

3.2 Site History (TCR)

An air photo from 1965 is included below. As shown in the 1965 air photo, the Site was recently planted with Red Pines at that time. This suggests that the Red Pine Plantation is approximately 55 years of age (Photo from City of Ottawa 2020).



Historic Air Photograph 1: Historic Air Photo from 1965. As shown in the 1965 air photo, the Site was recently planted with Red Pines at that time. This suggests that the Red Pine Plantation is approximately 55 years of age (Photo from City of Ottawa 2020).

3.3 Vegetation Communities (TCR)

3.3.1 Red Pine Plantation

The majority of the Site consists of a Red Pine Plantation. As described above in Section 3.2, the historic air photo shows that the Red Pine Plantation was recently planted in 1965, and hence is approximately 55 years of age. The Red Pine Plantation consists of rows of planted Red Pine, which vary in size between approximately 20 cm and 30 cm diameter at breast height (dbh). >95% of the stems throughout the Site are planted Red Pine. A trail is present at the eastern side of the Site, which has created an opening within the Red Pine Plantation. Hunt Club Creek also creates small openings along its banks. Regrowth deciduous trees are present within these openings, growing amidst the surrounding Red Pine Plantation. The deciduous stems are between 20 cm and 30 cm dbh in size. The most common deciduous trees are Sugar Maple and Trembling Aspen. American Elm, White Ash, White Birch, American Beech, Basswood, Black Cherry, Bur Oak, and Red Oak are also present. The shrub layer within the Red Pine Plantation is very sparse and includes a few Common Buckthorn and Tartarian Honeysuckle shrubs. The groundcover consists almost entirely of a dense mat of pine needles, with very few groundcover plants present.

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FIGURE 2: VEGETATION COMMUNITIES

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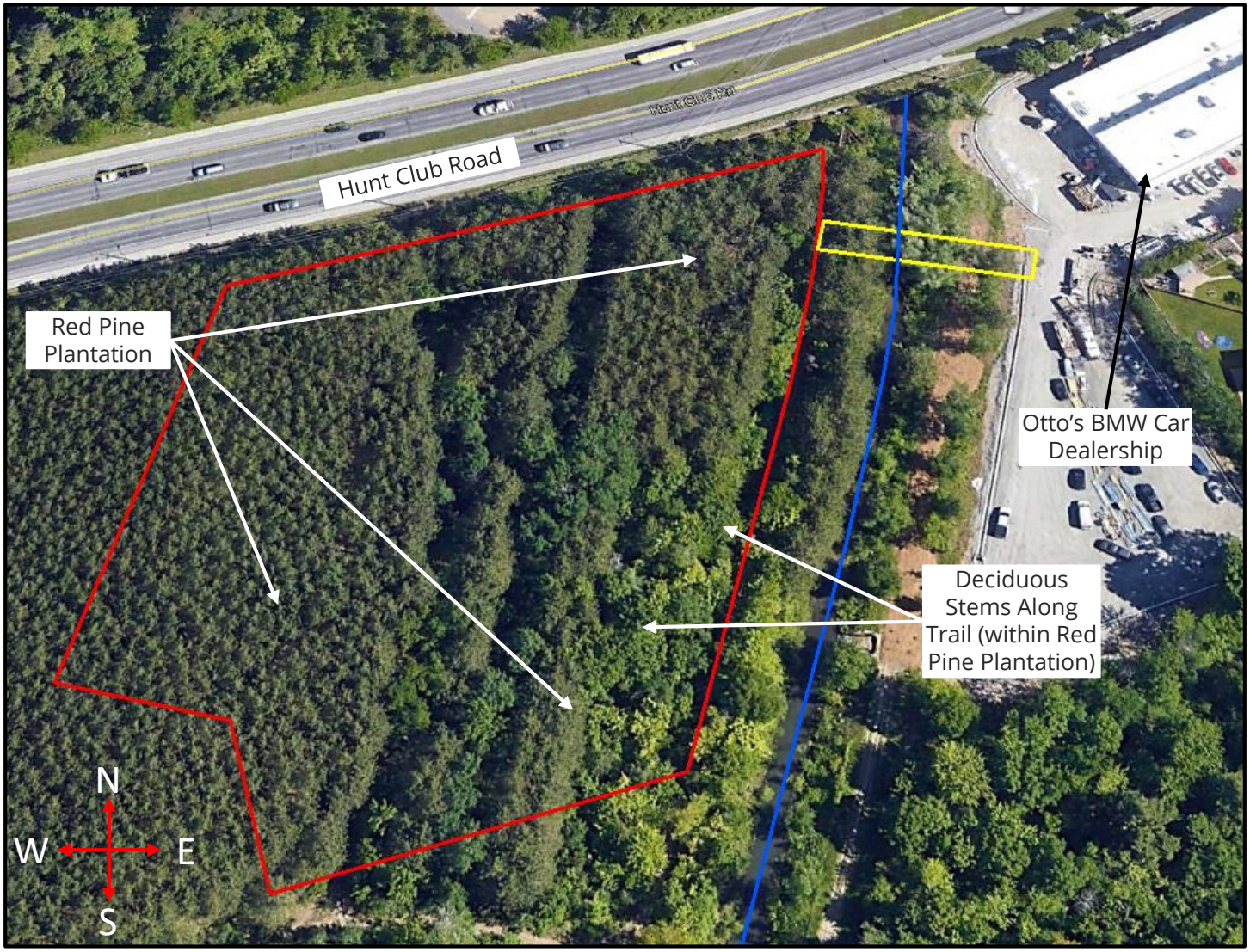

Please Note: This is not a legal land survey. All dimensions and locations are shown as approximate.

Photograph 1: Looking southwest along Hunt Club Road at the edge of the Site. The Red Pine Plantation is shown (December 3rd, 2020).

Photograph 2: Looking south at the deciduous stems growing along the edges of the trail at the eastern side of the Red Pine Plantation (December 3rd, 2020).

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Photograph 3: Interior of the Red Pine Plantation in the eastern part of the Site. Note the absence of shrubs and groundcover plants (December 3rd, 2020).

Photograph 4: Interior of the Red Pine Plantation in the western part of the Site. Note the absence of shrubs and groundcover plants (December 3rd, 2020).

3.3.2 Significant Woodlot Assessment

The Site is within the urban area of the City of Ottawa, and hence the City of Ottawa's urban area criteria for Significant Woodlots apply. The City of Ottawa's urban area criteria recognize woodlots which are both ≥0.8 ha in size and older than 60 years of age as Significant Woodlots (City of Ottawa 2019). As described above in Section 3.2, the Red Pine Plantation is approximately 55 years of age, and hence is too young to qualify as part of a Significant Woodlot under the City of Ottawa's urban area criteria. The following is a summary of the provincial Significant Woodlot criteria for the Red Pine Plantation (OMNRF 2010):

- **Woodland Size Criteria** – The Red Pine Plantation is part of a larger woodlot which extends to the west and the south. The total size of the woodlot is approximately 22.6 ha. The Site is within the Ottawa Lower Rideau Minor Watershed, which has approximately 33% forest cover (City of Ottawa 2011). In planning areas with 30% to 60% forest cover, woodlots 50 ha or larger qualify under the size criteria. The woodlot which surrounds the Site is <50 ha in size, and therefore the Red Pine Plantation does not qualify as part of a Significant Woodlot under the woodland size criteria.
- **Interior Forest Habitat** – Forested areas 100 m from an opening that is 20 m or greater in size are considered interior forest habitat. At its widest point, portions of the Site occur approximately 130 m from Hunt Club Road and the adjacent Otto's BMW Car Dealership. While this is sufficient for a small portion of the southwest corner of the Site to qualify as interior forest habitat, the total size of the interior forest habitat within the Site is too small to be considered ecologically significant.
- **Proximity to Other Woodlands/Habitats** – Woodlots within 30 m of another significant feature meet this criteria. The deciduous forest found south of the Site is part of the Greenbelt. As described below, the proposed mitigation measures are anticipated to be sufficient to address potential impacts to the adjacent Greenbelt lands.
- **Water Protection** – Woodlots which serve a water protection function meet this criteria. Hunt Club Creek is found east of the Site. As described below, the proposed mitigation measures are anticipated to be sufficient to address potential impacts to Hunt Club Creek.
- **Linkages** – The Site occurs within a larger woodlot that is approximately 22.6 ha in size. As shown above in Figure 1, the woodlot is surrounded by existing development on all sides. The adjacent segment of Hunt Club Creek is entombed in underground piping to the north and south of the Site. As described in Section 3.4.1, the piping of Hunt Club Creek is such that the segment of the creek that occurs east of the Site does not directly connect to adjacent natural watercourses. As such, the woodlot and Hunt Club Creek do not directly connect to any adjacent significant natural features, and therefore they are unlikely to provide significant linkage functions. By extension, the Site does not contribute to any significant linkage function.

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- **Woodlot Diversity** – As described above, the plant diversity within the Red Pine Plantation is extremely low. The Red Pine Plantation does not contain exceptional plant diversity, and no regionally rare forest plant species were noted.
- **Uncommon Characteristics** – Uncommon forest types, environmental features, or plant communities may contribute to woodlot significance. Also, forest stands older than 100 years would be considered significant. The Red Pine Plantation is an artificial vegetation community which does not contain any uncommon characteristics.
- **Economic and Social** – Woodlots which contribute special economic or social functions can qualify under this criteria. The Red Pine Plantation occurs adjacent to Hunt Club Road and does not appear to provide any exceptional economic or social functions.

In summary, available evidence suggests that the only significant functions provided by the Red Pine Plantation relate to its proximity to the adjacent Greenbelt lands (located to the south) and Hunt Club Creek (located to the east). Given the artificial nature of the Red Pine Plantation, the presence of adjacent significant natural features is not sufficient for the Red Pine Plantation to be considered part of a Significant Woodlot. As such, the Red Pine Plantation does not qualify as part of a Significant Woodlot under any of the assessment criteria. Mitigation measures to ensure the retention of trees within the adjacent Greenbelt lands are described below in Section 4.1. As described in Section 4.2.1, potential impacts to Hunt Club Creek will be addressed through the retention of a 15 m wide setback. While significant natural features are present adjacent to the Red Pine Plantation, the proposed mitigation measures are anticipated to be sufficient to address potential impacts to those adjacent natural features.

3.4 Wetlands and Watercourses

No unevaluated wetlands and/or Provincially Significant Wetlands are shown to exist within the Site and/or within 120 m of the Site (City of Ottawa 2020; OMNRF 2020). The Site is generally well drained and no evidence of surface water and/or wetland conditions was noted within the Site. As described below, Hunt Club Creek is present east of the Site.

3.4.1 Hunt Club Creek

A segment of Hunt Club Creek is located to the east of the Site. The watercourse flows in a south to north direction and is channelized adjacent to the Site. As shown in Figure 1, Hunt Club Creek is entombed in underground piping to the north and south of the Site. The piping of Hunt Club Creek is such that the segment of the creek that occurs east of the Site does not directly connect to adjacent natural watercourses. The Rideau Valley Conservation Authority (RVCA) conducts monitoring of Hunt Club Creek as part of their City Stream Watch Program. The RVCA identifies the catchment of Hunt Club Creek as being predominantly urbanized, with only 16.7% of the catchment forested (RVCA 2019). No wetlands are shown to exist within the Hunt Club Creek catchment. The watercourse is highly degraded and channelized throughout the majority of its length, including the segment of the watercourse which occurs east of the Site. No Species at Risk (SAR) were noted by the RVCA within the creek, and the RVCA describes the watercourse as being comparatively polluted and impacted by garbage and siltation (RVCA 2019). Only three (3) fish species have been documented within Hunt Club Creek by the RVCA monitoring program between 2007 and 2019. These include Brook Stickleback, Pumpkinseed, and Bluegill. Each of these species is common throughout the Ottawa area, and each is highly tolerant of disturbed environments. As described below in Section 4.2.1, a 15 m wide setback from Hunt Club Creek will be maintained during the development of the Site. This matches the 15 m wide setback which was approved for the opposing bank of the watercourse in 2016. Refer to Section 4.2.1 for additional detail.

Photograph 5: Looking south along Hunt Club Creek from Hunt Club Road. The Red Pine Plantation at the eastern edge of the Site is visible at the right (December 3rd, 2020).

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3.5 Adjacent Lands and Significant Features

The Site falls within the City of Ottawa's Natural Heritage System Overlay (City of Ottawa 2014). However, the Red Pine Plantation is an artificial vegetation community which does not qualify as part of a Significant Woodlot under either the City of Ottawa's criteria for the urban area and/or the provincial assessment criteria (Refer to Section 3.3.2 for additional detail). The Red Pine Plantation is not considered an ecologically significant feature. The regrowth deciduous forest found to the south of the Site is shown to be part of the Greenbelt (City of Ottawa 2020). Tree protection measures are proposed in order to ensure the retention of trees on properties found adjacent to the Site, including the adjacent Greenbelt lands (Refer to Section 4.1.1 for additional detail). As described above, Hunt Club Creek is present east of the Site. Mitigation measures to avoid significant impacts to Hunt Club Creek are discussed below in Section 4.2.1.

3.6 Wildlife and Significant Wildlife Habitat

As described above, the Site predominantly consists of a Red Pine Plantation, which is an artificial vegetation community with very low plant diversity. The Red Pine Plantation provides comparatively poor wildlife habitat functions, and very few wildlife species were observed within the Site. Wildlife observed within the Site included Black Capped Chickadee, Ring Billed Gull, American Crow, Blue Jay, and Red Squirrel. Each of these are comparatively common species found in urban and suburban areas.

There are no wetland and/or watercourse features found within the Site. As such, there are no features which may provide fish habitat and/or amphibian breeding habitat within the Site. As described above in Section 3.4.1, Hunt Club Creek is located east of the Site, and the watercourse provides degraded habitat for a very low diversity fish community (three (3) species). No stick nests, migratory bird stopover points, heron rookeries, reptile hibernacula, caves, bedrock fissures, wetlands, or any other features which may qualify as Significant Wildlife Habitat (SWH) were noted within the Site and/or immediately adjacent to the Site (OMNRF 2014). The potential presence of Species at Risk habitat is discussed below in Section 3.7.

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3.7 Species at Risk

The Natural History Information Center (NHIC) records for the nine (9) grids that include and surround the Site were reviewed. This included an area 3 km x 3 km in size and all published Species at Risk (SAR) records were noted (OMNRF 2020). The Ontario Ministry of Natural Resources and Forestry (OMNRF) *Potential Species at Risk List for the Geographic Township of Gloucester* was also reviewed (Appendix A). The following is a list of SAR which were identified as having the potential to be found in the region:

- American Eel – Endangered
- Lake Sturgeon – Threatened
- Hickorynut - Endangered
- American Ginseng - Endangered
- Butternut Trees – Endangered
- Bank Swallow - Threatened
- Barn Swallow - Threatened
- Chimney Swift – Threatened
- Blanding's Turtle – Threatened
- Spotted Turtle - Endangered
- Bobolink – Threatened
- Eastern Meadowlark – Threatened
- Henslow's Sparrow – Endangered
- Eastern Whip Poor Will – Threatened
- Least Bittern - Threatened
- Loggerhead Shrike – Endangered
- Eastern Small Footed Myotis – Endangered
- Little Brown Bat – Endangered
- Northern Long Eared Bat – Endangered
- Tricolored Bat – Endangered
- Gypsy Cuckoo Bumblebee - Endangered
- Transverse Lady Beetle - Endangered
- Bald Eagle – Special Concern
- Black Tern – Special Concern
- Canada Warbler – Special Concern
- Eastern Wood Pewee – Special Concern
- Wood Thrush – Special Concern
- Evening Grosbeak – Special Concern

- Common Nighthawk – Special Concern
- Peregrine Falcon – Special Concern
- Red Headed Woodpecker – Special Concern
- Rusty Blackbird – Special Concern
- Short Eared Owl – Special Concern
- Channel Darter – Special Concern
- Northern Brook Lamprey – Special Concern
- Eastern Musk Turtle – Special Concern
- Northern Map Turtle – Special Concern
- River Redhorse – Special Concern
- Silver Lamprey – Special Concern
- Eastern Ribbonsnake – Special Concern
- Snapping Turtle – Special Concern
- Monarch Butterfly – Special Concern

The following is a summary of the potential for these species to occur within the Site:

- **American Eel and Lake Sturgeon:** American Eel and Lake Sturgeon are fish species that are found in association with the Ottawa River (SARO 2020). As described above, there are no wetland and/or watercourse habitats found within the Site. Hunt Club Creek is too small and shallow to provide potential habitat for American Eel and Lake Sturgeon. Therefore, American Eel and Lake Sturgeon are unlikely to be a significant concern for the proposed development.
- **Hickorynut:** Hickorynut is a freshwater mussel found in association with the Ottawa River (SARO 2020). As described above, there are no wetland and/or watercourse habitats found within the Site. Hunt Club Creek is too small and shallow to provide potential habitat for Hickorynut. Therefore, Hickorynut are unlikely to be a significant concern for the proposed development.
- **American Ginseng:** American Ginseng are found in association with mature deciduous forests (SARO 2020). As described above, there are no deciduous forests within the Site. Therefore, American Ginseng are unlikely to be a significant concern for the proposed development.
- **Butternut Trees:** Butternut Trees occur in many treed areas throughout the Ottawa Region (SARO 2020). However, no Butternut Trees were found within the Site and/or within 50 m of the Site during the Site visit. As such, Butternut Trees are unlikely to be a significant concern for the proposed development.
- **Bank Swallow:** Bank Swallows nest in natural and artificial deposits of sand and silt with vertical faces (SARO 2020). There are no significant areas of exposed sand or silt within the Site and no stockpiles currently exist. As such, Bank Swallows are unlikely to be a significant concern for the proposed development.

- **Barn Swallow:** Barn Swallows may be found nesting in many anthropogenic structures including old barns and sheds, culverts, and under bridges (SARO 2020). There are no structures found within the Site at the current time, and therefore Barn Swallows are unlikely to be a significant concern for the proposed development.
- **Chimney Swift:** Chimney Swift nest in open chimneys with rough interior surfaces made from brick and/or stone (SARO 2020). There are no chimneys found within the Site, and therefore Chimney Swifts are unlikely to be a significant concern for the proposed development.
- **Blanding's Turtle and Spotted Turtle:** Blanding's Turtle and Spotted Turtle are both primarily found in association with shallow wetlands including marshes, bogs, and fens (SARO 2020). While both species may be found in shallow watercourses, Hunt Club Creek is too isolated from adjacent wetland/watercourse features and too degraded to be likely to provide suitable habitat for either species. No wetland features occur within the Site and/or adjacent to the Site, and therefore Blanding's Turtle and Spotted Turtle are unlikely to be a significant concern for the proposed development.
- **Bobolink, Eastern Meadowlark, and Henslow's Sparrow:** Bobolink, Eastern Meadowlark, and Henslow's Sparrow are found nesting in association with grasslands, old pastures, hayfields, and meadows (SARO 2020). There are no open habitats found within the Site and/or in the surrounding area, and therefore Bobolink, Eastern Meadowlark, and Henslow's Sparrow are unlikely to be a significant concern for the proposed development.
- **Eastern Whip Poor Will:** Suitable breeding habitats for Eastern Whip Poor Will generally consist of a 'mosaic' of open, half treed, and closed conditions (SARO 2020). As discussed above in Section 3.3, the Site generally does not provide the mosaic of half treed conditions preferred by Eastern Whip Poor Will. Therefore, Eastern Whip Poor Will are unlikely to be a significant concern for the proposed development.
- **Least Bittern:** Least Bittern breed in open marshes and wetlands (SARO 2020). As described above in Section 3.4, there are no significant areas of marsh or open wetland habitat within the Site and/or within 30 m. Least Bittern are therefore unlikely to be a significant concern for the proposed development.
- **Loggerhead Shrike:** Loggerhead Shrike are found nesting in large pastures and grasslands with scattered low trees and thorny shrubs. They also nest and forage in alvars (SARO 2020). As discussed above in Section 3.3, the Site does not provide open pasture, alvar, and/or grassland habitat. Therefore, Loggerhead Shrike are unlikely to be a significant concern for the proposed development.
- **Eastern Small Footed Myotis, Little Brown Bat, Northern Long Eared Bat, and Tricolored Bat**: No caves, bedrock fissures, mining shafts, abandoned buildings, or other features which may function as bat hibernacula habitat were noted within the Site. The OMNRF (2011) guidelines for bat surveying are outlined in the *Bats and Bat Habitats: Guidelines for Wind Power Projects*. These

guidelines state that deciduous and mixed forest habitats have the potential to provide maternity roosting sites. Maternity roosting generally occurs within forest patches with high densities of cavity and snag trees (OMNRF 2011). There is no deciduous forest or mixed forest within the Site. Therefore, the Site is unlikely to be suitable for bat roosting.

- **Gypsy Cuckoo Bumblebee:** The Gypsy Cuckoo Bumblebee is known from the Ottawa area from historic occurrences only. Most recent sightings of the species within Ontario are from the Pinery Provincial Park near Sarnia (SARO 2020). As such, Gypsy Cuckoo Bumblebee is unlikely to be a significant concern for the proposed development.
- **Transverse Lady Beetle:** There have been no records of Transverse Lady Beetle in Ontario since 1990 (SARO 2020). As such, Transverse Lady Beetle are unlikely to be a significant concern for the proposed development.
- **Bald Eagle:** Bald Eagles are a species of Special Concern, and therefore their habitat is not protected by the Ontario Endangered Species Act (ESA). Bald Eagles are primarily found nesting adjacent to large lakes and rivers (e.g. the Ottawa River) (SARO 2020). Due to the absence of large bodies of water in the vicinity of the Site, Bald Eagles are unlikely to be present. As such, Bald Eagles are unlikely to be a significant concern for the proposed development.
- **Black Tern**: Black Terns build their nests in shallow marshes (SARO 2020). As discussed above, there are no wetland habitats or ponds found within the Site and/or within 30 m. Therefore, Black Terns are unlikely to be a significant concern for the proposed development.
- **Canada Warbler, Eastern Wood Pewee, and Wood Thrush**: Canada Warbler, Eastern Wood Pewee, and Wood Thrush are all species that are found nesting within interior forest habitat (SARO 2020). As described above in Section 3.3.2, while a small portion of the southwest corner of the Site qualifies as interior forest habitat, the total size of the interior forest habitat within the Site is too small to be considered ecologically significant. The Red Pine Plantation is an artificial vegetation community which is unlikely to provide breeding habitat for Canada Warbler, Eastern Wood Pewee, and Wood Thrush, and therefore these species are unlikely to be a significant concern for the proposed development.
- **Evening Grosbeak**: Evening Grosbeak breed in mature mixed forests dominated by Fir trees, White Spruce, and/or Trembling Aspen (SARO 2020). As described above, the Site is dominated by a Red Pine Plantation. As such, the Site is unlikely to provide breeding habitat for Evening Grosbeak, and therefore Evening Grosbeak is unlikely to be a significant concern for the proposed development.
- **Common Nighthawk:** Common Nighthawk are a species of Special Concern, and therefore their habitat is not regulated under the Ontario ESA. Common Nighthawk habitat consists of open areas with little or no ground vegetation including rock barrens, lakeshores, mining areas, and recent burns (SARO 2020). As described above, the majority of the Site consists of a Red Pine

Plantation, which does not provide suitable habitat for Common Nighthawk. Therefore, Common Nighthawk are unlikely to be a significant concern for the proposed development.

- **Peregrine Falcon:** Peregrine Falcons nest on steep cliff edges and at the top of tall buildings in urban areas (SARO 2020). There are no potentially suitable nest sites for Peregrine Falcons within the Site, and therefore they are unlikely to be a significant concern for the proposed development.
- **Red Headed Woodpecker:** Red Headed Woodpeckers live in open woodlands and along woodland edges (SARO 2020). Within the Ottawa area, most sightings of the species occur in the Constance Bay region. The Red Pine Plantation is an artificial vegetation community which is unlikely to provide breeding habitat for Red Headed Woodpecker. As such, Red Headed Woodpeckers are unlikely to be a significant concern for the proposed development.
- **Rusty Blackbird**: Rusty Blackbirds breed in coniferous forest near wetlands (SARO 2020). As described above in Section 3.4, there are no wetlands found within the Site and/or adjacent to the Site, and therefore Rusty Blackbirds are unlikely to be a significant concern for the proposed development.
- **Short Eared Owl**: Short Eared Owls forage in open areas including grasslands, tundra, and marshes (SARO 2020). As described above, there are no open habitats within the Site, and therefore Short Eared Owl are unlikely to be a significant concern for the proposed development.
- **Channel Darter and Northern Brook Lamprey**: Channel Darter and Northern Brook Lamprey occur in relatively pristine shallow watercourses with clear water (SARO 2020). As described above, Hunt Club Creek is both turbid and highly degraded. The RVCA fish surveying results did not identify the presence of Channel Darter and/or Northern Brook Lamprey within Hunt Club Creek (RVCA 2019). As such, Channel Darter and Northern Brook Lamprey are unlikely to be a significant concern for the proposed development.
- **Eastern Musk Turtle, Northern Map Turtle, River Redhorse, and Silver Lamprey**: Eastern Musk Turtle, Northern Map Turtle, River Redhorse, and Silver Lamprey are all species of Special Concern, and therefore their habitat is not regulated under the Ontario ESA. All four (4) species are primarily riverine species (SARO 2020). Hunt Club Creek is too shallow and degraded to be likely to provide habitat for these species, and therefore they are unlikely to be a significant concern for the proposed development.
- **Eastern Ribbonsnake**: Eastern Ribbonsnakes are found in association with marshes and bogs (SARO 2020). As described above, there are no marshes or bogs found within the Site and/or within the immediately adjacent area, and therefore Eastern Ribbonsnakes are unlikely to be a significant concern for the proposed development.
- **Snapping Turtle**: Snapping Turtles are a species of Special Concern, and therefore their habitat is not regulated under the Ontario ESA. Snapping Turtles are generally common in many aquatic

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habitat areas (SARO 2020). While Snapping Turtles may be found in shallow watercourses, Hunt Club Creek is too isolated from adjacent wetland/watercourse features and too degraded to be likely to provide suitable habitat for the species. Therefore, Snapping Turtles are unlikely to be a significant concern for the proposed development. Mitigation measures that address potential impacts to Hunt Club Creek are discussed below in Section 4.2.1.

- **Monarch Butterfly:** Monarch Butterflies are found in meadow and grassland habitat in association with their Milkweed host plants (SARO 2020). As described above in Section 3.3, there is no meadow or grassland habitat found within the Site, and no Milkweed plants were noted. As such, Monarch Butterflies are unlikely to be a significant concern for the proposed development.

In summary, no significant Species at Risk (SAR) concerns were identified for the Site.

3.8 Linkages

The Site occurs within a larger woodlot that is approximately 22.6 ha in size. As shown above in Figure 1, the woodlot is surrounded by existing development on all sides. The adjacent segment of Hunt Club Creek is entombed in underground piping to the north and south of the Site. As described in Section 3.4.1, the piping of Hunt Club Creek is such that the segment of the creek that occurs east of the Site does not directly connect to adjacent natural watercourses. As such, the woodlot and Hunt Club Creek do not directly connect to any adjacent significant natural features, and therefore they are unlikely to provide significant linkage functions. By extension, the Site does not contribute to any significant linkage function.

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4.0 DESCRIPTION OF ENVIRONMENTAL IMPACTS AND MITIGATION

4.1 Terrestrial Habitat and Tree Removal (TCR)

The development, grading, and construction requirements within the Site are such that there are no opportunities for tree retention within the Site. All trees within the proposed development area will be removed in order to accommodate the development of the Site. As described above, the Red Pine Plantation is not considered a significant ecological feature, and therefore tree removal is not anticipated to significantly negatively impact the natural features and functions of the Site.

It is not anticipated to be feasible to retain trees within the Site at the Site edges, due to the potential for retained trees at the Site edges to become hazardous in the future. The majority of trees within the Site are planted Red Pines growing in a plantation condition. Red Pines found growing in plantation conditions are generally vulnerable to windthrow damage, which can lead to trees becoming tilted, unstable, or falling. It is anticipated that Red Pines found at the edges of the tree clearing area will be vulnerable to windthrow impacts following tree clearing. In order to avoid potential issues with hazardous trees, it is recommended that trees should not be retained within the Site at the Site edges.

Existing trees will be retained within the 15 m wide setback from Hunt Club Creek. Trees will also be retained within adjacent areas (e.g. beyond the limits of the Site). Mitigation measures to protect retained trees are discussed below.

4.1.1 Tree Preservation Measures

The following tree mitigation measures should be implemented to help protect and preserve retained trees:

- Mark the edge of the tree clearing area to ensure only designated trees are removed;
- Protect the Critical Root Zone (CRZ) of retained trees, where the CRZ is established as being 10 cm from the trunk of a tree for every centimeter of trunk diameter at breast height (dbh). The CRZ is calculated as dbh x 10 cm;
- When trees to be removed overlap with the CRZ of trees to be retained, cut roots at the edge of the CRZ and grind down stumps after tree removal. Do not pull out stumps. Ensure there is not root pulling or disturbance of the ground within the CRZ;
- If roots must be cut, roots 20 mm or larger should be cut at right angles with clean, sharp horticultural tools without tearing, crushing, or pulling;
- Do not place any material or equipment within the CRZ of any tree;
- Do not attach any signs, notices, or posters to any tree;
- Do not damage the root system, trunk, or branches of any tree; and
- Ensure that exhaust fumes from all equipment are directed away from any tree canopy.

4.1.2 Replanting

Consideration will be given to planting new trees and shrubs as landscaping features along the perimeter of the Site. Plantings should emphasize the use of native trees and shrubs, which may include the deciduous trees listed above in Section 3.3.1. Planting of Ash trees should be avoided due to the high likelihood that any planted Ash trees will become infested with Emerald Ash Borer.

4.2 Wetlands and Watercourses

As described above in Section 3.4, no unevaluated wetlands and/or Provincially Significant Wetlands are shown to exist within the Site and/or within 120 m of the Site (City of Ottawa 2020; OMNRF 2020). The Site is generally well drained and no evidence of surface water and/or wetland conditions was noted within the Site. Hunt Club Creek is present east of the Site.

4.2.1 Hunt Club Creek Setback and Crossing

As described above in Section 3.4.1, Hunt Club Creek is a highly degraded watercourse which provides very limited fish habitat functions. The segment of Hunt Club Creek which occurs adjacent to the Site is entombed within underground piping to the north and south of the Site, such that it does not directly connect to any adjacent natural watercourses. In 2016, a 15 m wide vegetated setback from the eastern side of Hunt Club Creek was approved as a buffer for the expansion of the Otto's BMW Car Dealership. A matching 15 m wide vegetated setback from the current development is proposed. The 15 m wide setback from the current development (on the west side of Hunt Club Creek) will match the existing condition adjacent to the Otto's BMW Car Dealership (on the east side of Hunt Club Creek). Vegetation within the 15 m wide setback will be retained during the development of the Site. The 15 m wide setback is anticipated to be sufficient to provide a buffer which will help to slow, filter, and absorb overland stormwater flow. The buffer will also reduce the likelihood of erosion, siltation, and edge effects impacting the watercourse.

A watercourse crossing will be required to connect the Site to the existing Otto's BMW Car Dealership. The watercourse crossing will include three (3) 1800 mm CSP culverts, which are anticipated to be large enough to allow the passage of fish. The installation of the culverts is not anticipated to result in significant disturbance to the fish habitat and/or a significant loss of fish habitat. Construction stage mitigation measures during the installation of the culverts are discussed below in Section 4.4.2.

The installation of relatively small watercourse crossings (e.g. small culverts) does not typically require authorization under the Fisheries Act. However, it should be noted that due to recent changes to the Fisheries Act, Fisheries and Oceans Canada has withdrawn their previously published code of practice for culvert installation. In the absence of a published code of practice, Fisheries and Oceans Canada has advised that new culverts are temporarily subject to review under the Fisheries Act. However, Fisheries and Oceans Canada has communicated that a new code of practice for culvert installation is in development. It is anticipated that once the new code of practice has been published, this will likely remove the need for small culverts to be reviewed by Fisheries and Oceans Canada. If the new code of practice is available prior to the commencement of construction, the new code of practice will be followed, in which case a review under the Fisheries Act is unlikely to be

required. However, if the new code of practice is not available prior to the commencement of construction, the new culverts may require review under the Fisheries Act. The potential requirement for a review under the Fisheries Act should be re-evaluated prior to construction. Regardless of whether or not a review under the Fisheries Act is required, ultimately it is anticipated that an authorization under the Fisheries Act is unlikely to be required.

4.2.2 Servicing and Stormwater Management

The Site will be developed as a parking and storage facility, and therefore it does not require sewer and water services. Stormwater runoff from the Site will be directed to grassed perimeter swales and granular infiltration trenches, which will infiltrate the majority of the runoff from the Site (JFSA 2021). The stormwater management system will include an outlet to Hunt Club Creek.

4.2.3 Sediment and Erosion Controls

During construction, existing conveyance systems and watercourses can be exposed to significant sediment loadings. Although construction is only a temporary situation, a Sediment and Erosion Control Plan will be required to ensure the existing conveyance systems and Hunt Club Creek are not negatively impacted by sediment and erosion. The Sediment and Erosion Control Plan will include the following:

- Toed-in silt fencing will be required along the eastern edge of the development area, in order to protect Hunt Club Creek from potential sediment and erosion impacts;
- Groundwater in trenches (if present) will be pumped into a filter mechanism, such as a trap made up of geotextile filters and straw, prior to release to the environment;
- Bulkhead barriers will be installed at the nearest downstream manhole in each sewer which connects to an existing downstream sewer (e.g. existing sewers along Hunt Club Road, if required). These bulkheads will trap any sediment carrying flows, thus preventing any construction-related contamination of existing sewers;
- Seepage barriers will be constructed in any temporary drainage ditches;
- Construction vehicles will leave the Site at designated locations. Exits will consist of a bed of granular material, in order to minimize the tracking of mud off-site;
- Any stockpiled material will be properly managed to prevent those materials from entering the sewer systems and watercourses; and
- Until landscaped areas are sodded or until streets are asphalted and curbed, all catch basins and manholes will be constructed with a geotextile filter sock located between the structure frame and cover.

4.3 Adjacent Lands and Significant Features

As described above in Section 3.5, the Site falls within the City of Ottawa's Natural Heritage System Overlay (City of Ottawa 2014). However, the Red Pine Plantation is an artificial vegetation community which does not qualify as part of a Significant Woodlot under either the City of Ottawa's criteria for the urban area and/or the provincial assessment criteria (Refer to Section 3.3.2 for additional detail). The Red Pine Plantation is not considered an ecologically significant feature. The regrowth deciduous forest found to the south of the Site is shown to be part of the Greenbelt (City of Ottawa 2020). Tree protection measures are proposed in order to ensure the retention of trees on properties found adjacent to the Site, including the adjacent Greenbelt lands (Refer to Section 4.1.1 for additional detail). As described above, Hunt Club Creek is present east of the Site. Mitigation measures to avoid significant impacts to Hunt Club Creek are discussed above in Section 4.2.1.

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4.4 Wildlife and Species at Risk Construction Stage Mitigation

4.4.1 Mitigation During Construction in Terrestrial Areas

Mitigation for wildlife protection during tree clearing and construction is summarized here. These recommendations include provisions from the City of Ottawa (2015) *Protocol for Wildlife Protection During Construction*:

- **Pre-Stressing:** Prior to tree removal, the area will be pre-stressed by traversing the Site with a loud noise such as an excavator horn. This will encourage wildlife to leave the area;
- **Tree Clearing Direction:** Tree clearing will be undertaken from Hunt Club Road towards the south, in order to direct wildlife towards the adjacent Greenbelt lands;
- **Silt Fencing:** Toed-in silt fencing will be installed along the eastern edge of the development area, in order to protect Hunt Club Creek from potential sediment and erosion impacts. The silt fencing will also serve to exclude wildlife from the construction work area;
- **Inspections:** The toed-in silt fencing will be inspected by a designated staff member prior to the commencement of work to ensure that the arrangement will reduce the likelihood of wildlife entering the work area. Any wildlife or significant wildlife habitat features that are encountered will be identified and marked;
- **Sweeps:** Prior to vegetation clearing, preconstruction sweeps of vegetated areas will be undertaken to ensure wildlife are not present. Construction staff will be required to review the mitigation measures included in this report. A designated staff member will be required to conduct daily sweeps each morning prior to the commencement of work to ensure that wildlife have not entered the work area. The designated staff member will also periodically inspect the silt fencing to ensure there are no gaps or holes in the fence;
- **Species at Risk (SAR) Encounters:** If Species at Risk (SAR) are encountered in the work area, construction in the vicinity must be stopped immediately and measures must be taken to ensure the SAR is not harmed. The project biologist and the Ministry of Environment, Conservation, and Parks (MECP) must be contacted to discuss how to proceed prior to the recommencement of work;
- **General Provisions:** General provisions for Site management include the following:
    - Do not harm, feed, or unnecessarily harass wildlife;
    - Drive slowly and avoid hitting wildlife;
    - Keep the Site tidy and free of garbage and food wastes. Secure all garbage in appropriate sealed containers;
    - Ensure proper Site drainage so that standing water does not accumulate on Site. This will reduce the likelihood that wildlife may enter the Site;

- Any stockpiles should be properly secured with silt fencing to prevent wildlife from accessing areas of loose fill; and

- **Timing Windows:**
  - The core migratory bird breeding season is April 15th to August 15th each year. Initial tree clearing should be undertaken between August 15th and April 15th in order to avoid the core migratory bird breeding season.

4.4.2 Mitigation During Installation of the Watercourse Crossing

A watercourse crossing will be required to connect the Site to the existing Otto's BMW Car Dealership. The watercourse crossing will include three (3) 1800 mm CSP culverts, which are anticipated to be large enough to allow the passage of fish. The construction of the watercourse crossing will require isolation of the work area, in order to allow the crossing and culverts to be installed in dry conditions. Isolation of the work area is anticipated to require the use of a temporary cofferdam. The temporary cofferdam will be installed according to the procedures and mitigation measures outlined in the Fisheries and Oceans Canada *Interim Code of Practice: Temporary Cofferdams and Diversion Channels* (FOC 2020). Refer to FOC (2020) for additional detail.

All in-water works will be required to take place between July 15th and March 15th, in order to comply with the sensitive in-water work timing window (FOC 2020). In order to address the potential presence of fish and other aquatic wildlife within the work area, the following dewatering mitigation measures will be required:

- **Supervision and Wildlife Salvage:** All dewatering operations must be supervised by a Qualified Biologist, who must be present during dewatering to relocate fish and other wildlife. Full time supervision by a Qualified Biologist is necessary during initial water draw down;
- **Licenses:** A *Wildlife Scientific Collector's Authorization* and *License to Collect Fish for Scientific Purposes* must be obtained from the Ontario Ministry of Natural Resources and Forestry (OMNRF) prior to the commencement of dewatering operations. These authorizations will allow for the relocation of fish and other wildlife during the dewatering process. Relocation sites and detailed fish and wildlife salvage procedures will be identified during the fish and wildlife relocation license application process; and
- **Dewatering:** In accordance with the dewatering arrangement, the water level in any dewatering work areas must be drawn down to permit the safe removal of fish and other wildlife. All removal activities will be undertaken before the area is completely dry, in order to avoid aquatic animals being exposed to dry conditions. During water draw down, a mesh net will be in place around any dewatering pumps to ensure that fish will not become entangled in the pumps.

5.0 CUMULATIVE EFFECTS

Cumulative effects were considered in the design of the mitigation measures outlined in Section 4.0. As described above, the development is not anticipated to result in a significant loss of Species at Risk (SAR) habitat. The majority of the Site consists of a Red Pine Plantation, which is an artificial vegetation community with limited ecological value. As such, the proposed development will not significantly contribute to the cumulative loss of wetlands or forest habitat.

6.0 MONITORING

Construction stage monitoring requirements are outlined in Section 4.4.1 and Section 4.4.2 (above). Monitoring will include pre-construction sweeps to inspect the silt fencing and vegetation prior to tree clearing, and daily sweeps by construction staff. Supervision by a Qualified Biologist will be required during the dewatering operations. No post-construction monitoring requirements have been identified.

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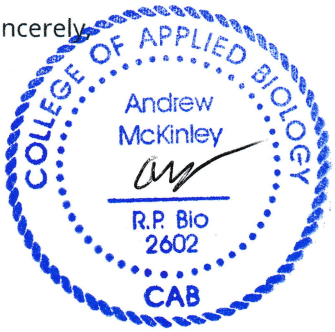
7.0 CLOSURE

Pending that the regulatory, mitigation, and avoidance measures outlined in this report are implemented appropriately, the development of the Site is not anticipated to have a significant negative effect on the natural features and functions.

We trust that the above information is sufficient; should you have any questions or require further information, please do not hesitate to contact the undersigned, at your convenience.

Sincerely,



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APPENDIX A

Ontario Ministry of Natural Resources and Forestry (OMNRF) Potential Species at Risk List for the Geographic Township of Gloucester

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FITZROY	GLOUCESTER	GOULBOURN
American Eel	American Eel	Bald Eagle
American Ginseng	American Ginseng	Bank Swallow
Bald Eagle	Bald Eagle	Barn Swallow
Bank Swallow	Bank Swallow	Blanding's Turtle
Barn Swallow	Barn Swallow	Bobolink
Blanding's Turtle	Black Tern	Bogbean Buckmoth
Bobolink	Blanding's Turtle	Butternut
Butternut	Bobolink	Chimney Swift
Canada Warbler	Butternut	Common Nighthawk
Chimney Swift	Canada Warbler	Eastern Meadowlark
Common Nighthawk	Channel Darter	Eastern Prairie Fringed Orchid
Eastern Meadowlark	Chimney Swift	Eastern Small-footed Myotis
Eastern Musk Turtle	Common Nighthawk	Eastern Whip-poor-will
Eastern Ribbonsnake	Eastern Meadowlark	Eastern Wood-pewee
Eastern Silvery Minnow	Eastern Musk Turtle	Gypsy Cuckoo Bumble Bee
Eastern Small-footed Myotis	Eastern Ribbon Snake	Horned Grebe
Eastern Whip-poor-will	Eastern Small-footed Myotis	Least Bittern
Eastern Wood-pewee	Eastern Whip-poor-will	Little Brown Myotis
King Rail	Eastern Wood-pewee	Loggerhead Shrike
Lake Sturgeon	Evening Grosbeak	Monarch
Least Bittern	Gypsy Cuckoo Bumble Bee	Northern Myotis
Little Brown Myotis	Henslow's Sparrow	Red-headed Woodpecker
Loggerhead Shrike	Hickorynut	Snapping Turtle
Monarch	Lake Sturgeon	Tri-colored Bat
Northern Map Turtle	Least Bittern	Wood Thrush
Northern Myotis	Little Brown Myotis	Yellow Rail
Olive-sided Flycatcher	Loggerhead Shrike	
Peregrine Falcon	Monarch	
Red-headed Woodpecker	Northern Brook Lamprey	
River Redhorse	Northern Map Turtle	
Short-eared Owl	Northern Myotis	
Snapping Turtle	Peregrine Falcon	
Transverse Lady Beetle	Red-headed Woodpecker	
Tri-colored Bat	River Redhorse	
Wood Thrush	Rusty Blackbird	
	Short-eared Owl	
	Silver Lamprey	
	Snapping Turtle	
	Spotted Turtle	
	Transverse Lady Beetle	
	Tri-colored Bat	
	Wood Thrush	