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**Environmental Impact Statement
Proposed Warehouse Development
3113 Carp Road
Geographic Township of Huntley
Ottawa, Ontario**

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Submitted to:

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**Environmental Impact Statement
Proposed Warehouse Development
3113 Carp Road
Geographic Township of Huntley
Ottawa, Ontario**

December 16, 2025
Project: 104420.001

EXECUTIVE SUMMARY

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Megha Holdings Inc. to complete an Environmental Impact Statement (EIS) for the property located at 3113 Carp Road in the Township of Huntley, City of Ottawa, Ontario. This EIS has been completed in support of a proposed warehouse development and was completed in accordance with all federal, provincial and municipal policies and guidelines, as applicable.

In support of this EIS a desktop review and one field investigation was completed on September 29, 2022, to identify the presence or absence of natural heritage features and species at risk (SAR) on-site. The focus of the field investigation was to describe, in general, the natural and physical setting of the subject property with a focus on confirming the presence or absence of natural heritage features and potential SAR or their habitat as identified in the desktop review.

Following completion of the desktop review and field investigations no significant natural heritage features were identified on-site or within the study area. The adjacent watercourse was found to provide ephemeral functions and does not represent permanent fish habitat. The following SAR and their habitat were identified as having a potential to occur on-site: Blanding's turtle, eastern red bat, eastern small-foot myotis, hoary bat, little brown myotis, silver-haired bat, and tri-colored bat. No butternut trees were observed on-site.

Potential impacts to the natural heritage features were primarily associated with the ephemeral watercourse. Potential impacts to natural heritage features are anticipated to be negligible given the use of a 15 m development setback and the availability of habitat in the immediate surrounding area. In addition to the 15 m setback appropriate stormwater management plans should be implemented to provide suitable water quality and quantity control.

Additionally, to provide protection to potential SAR and their habitat on-site, should any SAR be discovered throughout the course of the proposed works, operations should stop and the species at risk biologist with the local MECP district should be contacted immediately for further direction. Furthermore, to ensure compliance with all applicable legislation, all best management practices and adherence to vegetation clearing windows for birds and bats, outlined in Section 7 should be followed to ensure no negative impacts occur to natural heritage features on-site.

The proposed project complies with the natural heritage policies of the Provincial Planning Statement and the City of Ottawa Official Plan. No negative impacts to identified natural heritage features or their ecological functions are anticipated as a result of the proposed project as long as all mitigation measures in Section 7 are enacted and best management practices followed.

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1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Megha Holdings Inc. to complete an Environmental Impact Statement (EIS) for the property located at 3113 Carp Road, in the Geographic Township of Huntley, City of Ottawa, Ontario (hereafter referred to as “the subject property”). The location of the subject property is illustrated on Figure A.1 in Appendix A.

1.1 Purpose

The proponent is seeking to develop a warehouse facility on an approximately 3.05-hectare (ha) vacant property. Based on Section 4.8 of the City of Ottawa Official Plan (2023) an EIS is required showing that the proposed development 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 in Appendix A.

1.2 Objective

The 2024 Provincial Planning Statement (PPS) (MMAH, 2024) issued under Section 3 of the Planning Act states that “development and site alteration shall not be permitted in: significant wetlands in Ecoregions 5E, 6E and 7E.” Furthermore, the 2024 Provincial Policy Statement dictates “development and site alteration shall not be permitted in: significant wetlands in the Canadian Shield north of Ecoregion 5E, 6E and 7E, significant woodlands in 6E and 7E, significant valleylands in 6E and 7E, significant wildlife habitat and significant areas of natural and scientific interest unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.” Similarly, the PPS dictates that “development and site alteration shall not be permitted in” fish habitat or habitat of endangered or threatened species “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 PPS (MMAH, 2024), on the subject property and within the broader study area and; 2) to assess the potential impacts from the proposed development application 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, 2024);
- Endangered Species Act (Ontario, 2007);
- Conservation Authorities Act (Ontario, 1990);
- Natural Heritage Reference Manual (OMNR, 2010);

- City of Ottawa Official Plan (Ottawa, 2023); and
- City of Ottawa EIS Guidelines (Ottawa, 2023)

1.3 Physical Setting

The subject property is located at 3113 Carp Road, in the Geographic Township of Huntley, City of Ottawa, Ontario. The subject property currently consists of cultural meadow and medium mineral annual row crops. To the north the site is bound by an unnamed road, and to the south by 3075 Carp Road. To the east the site is bound by 3107 and 3099 Carp Road and to the east the by unaddressed parcel on part of Lot 12, Concession 3.

1.4 Land Use Context

The subject property is situated within a larger rural peri-urban area consisting of commercial, light industrial, mineral extraction, residential and agricultural land uses. The existing land use designation from the City of Ottawa is general rural area. The City of Ottawa zoning by-law is rural commercial zone (RC9).

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 a review of SAR habitat requirements and range maps.

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 (OMNRF, 2011);
- City of Ottawa Official Plan (City of Ottawa, 2023)
- 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)
- Ontario Herpetofaunal Atlas (Oldham and Weller, 2000);
- Carp River Watershed/Subwatershed Study (Robinson, 2004);
- Carp Road Corridor Community Design Plan (City of Ottawa, 2004);
- Wildlife Values Area (OMNRF, 2020a);
- Wildlife Values Site (OMNRF, 2020b); and
- Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019).

2.2 Field Investigations

A single field investigation was undertaken to describe, in general, the natural and physical setting of the subject property with a focus on identifying natural heritage features and any potential SAR or their habitat that may exist at the subject property.

A single field investigation was completed in support of this EIS on September 29, 2022 from 9:20-11:30. Site conditions during the field investigation were as follows: 8°C, mostly sunny (10% cloud cover), Beaufort wind 4, no precipitation. Photographs of site features taken during field investigations are provided in Appendix B. A summary of all wildlife observed during the field investigation is provided in Table C.1 of Appendix C.

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 September 29, 2022 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 Tree Inventory

All trees greater than 10 cm in diameter were recorded and critical rootzone calculated in order to facilitate the retention of trees during development. A copy of the tree conservation report is provided in Appendix D of this report.

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, 2015a); and
- Significant Wildlife Habitat Mitigation Support Tool (OMNRF, 2014b).

3.0 EXISTING ENVIRONMENT

3.1 Ecoregion

The site is situated Ecoregion 6E-11 (Lake Simcoe-Rideau), which extends from Lake Huron in the west to the Ottawa River in the east. The climate of Ecoregion 6E is categorized as humid, high to moderate temperate ecoclimate with a mean annual temperature range between 4.9°C to 7.8°C with annual precipitation ranging between 759 mm to 1,087 mm (Crins et al., 2009).

The eastern portion of the Ecoregion, which the subject property is located, is underlain by glaciomarine deposits as a result of the brief post-glacial incursion of salt water from the Champlain Sea along the St. Lawrence Valley. This Ecoregion falls with Rowe's (1972) Great Lakes-St. Lawrence Forest Region, including its Huron-Ontario and Upper St. Lawrence sections, and a small part of the Middle Ottawa Forest section (Crins et al., 2009).

3.2 Study Area Land Use

Figure 1 below provides an illustration of the temporal changes in land use within the study area from 1976, 1991, 2008, and 2021 aerial imagery taken from GeoOttawa.

In 1976, the subject property and surrounding lands were primarily populated with agricultural fields, farmhouses, and some fallow fields. The extent of the Carp airport is visible in the northwest corner of the greater study area.

By 1991, significant development occurred along Carp Road and surrounding land, primarily for commercial and industrial use. Much of the land south of the property had entered a regenerative state with trees colonizing historic agricultural fields. Two large stormwater management ponds had been created south of the site.

By 2008, the northern surrounding area had continued to intensify with more commercial and industrial development. Agricultural land to the southwest continued to be abandoned and reclaimed by woodlands.

By 2021, land use has not changed significantly. Minimal further industrial development had occurred northwest of the site. The remaining surrounding lands are in present day configuration.



Figure 1 – Temporal Changes in Land Use within Study Area

3.2.1 Carp River Watershed/Subwatershed Study and Carp Road Corridor Community Design Plan

The Carp River Watershed/Subwatershed Study (Robinson, 2004) was completed to provide, in part, to provide initial guidance on approaches required to protect and restore environmental values within the Carp River watershed. The Carp River watershed encompasses an area of approximately 30,600 ha surrounding the former municipalities of West Carleton, Kanata and Goulbourn. The Carp River Watershed/Subwatershed Study (CRSWS) identifies opportunities and constraints for improvement of the Carp River Watershed while providing a series of Best Management Practices (BMPs) that may be implemented in order to protect, enhance or restore the environment. The desktop review has identified a watercourse within the study area, however the CRSWS has not classified it as a cold-water stream. As such, under the recommendations provided by the CRSWS, the watercourse should receive a 15 m setback and revegetating up to 50% of the total stream length with native wood, riparian vegetation.

The Carp Road Corridor Community Design Plan (CRCCDP) is a Council approved guide to the long-term growth and development of the Carp Road Corridor. The CRCCDP provides guidelines for the day-to-day decision-making on land use planning and sets out the community's priorities for the future (Ottawa, 2004). The Carp Road Corridor extends from Stittsville to Fitzroy Harbour and is a significant rural employment area. Schedule 2 of the CRCCDP identifies the subject property as a moderate recharge area, and therefore requires a groundwater impact assessment.

3.3 Landforms, Soils and Bedrock Geology

The topography of the site is relatively flat, with a gentle slope from southwest to northeast. The site has a topographical high of 120 mASL in the southwestern corner and a topographical low of 115 mASL in the northeast corner.

A single topographical landform, as mapped by Chapman and Putnam (1984) is described on the subject property, sand plains of the Ottawa Valley Clay Plains.

The Ontario Geological Survey (OGS, 2019) identifies one surficial soil unit on the subject property, coarse textured glaciomarine deposits. These deposits consist of sand, gravel, minor silt and clay with littoral, foreshore, and basinal deposits, extending past the property boundaries in all directions.

Bedrock on the site is composed of the Ottawa Group, Simcoe Group and Shadow Lake Formation comprised of limestone, dolostone, shale, arkose and sandstone.

3.4 Surface Water, Groundwater and Fish Habitat

Surface water features on-site consist of a single watercourse in the southern corner of the property. The watercourse was dry at the time of the field investigation. . Based on field observations and aerial photography review, this watercourse feature is an artifact of historical, anthropogenic site disturbance associated with the agricultural activities within the study area. While the watercourse has been mapped on GeoOttawa, field observations during the field investigation indicate that the GeoOttawa mapping is not accurate. No portion of the watercourse was identified on-site during the field investigation, contrary to mapping provided on GeoOttawa. The watercourse was observed to carry parallel to the western property boundary, instead of cutting on-site (as mapped by GeoOttawa), the watercourse wraps around the southwest corner of the property boundary before continuing south across the neighbouring agricultural field on 3075 Carp Road. To the southeast, the watercourse appears to flow through a pipe, crosses an unnamed access road, and is mapped as flowing over the next agricultural field before emptying into a waterbody to the south. To the northwest, the watercourse appears to flow through a series of channelized ditches before emptying into the Carp River. The watercourse was observed as having no in-water or riparian vegetation and is unlikely to provide wildlife habitat. Based on field observations the watercourse is fed through seasonal overland runoff. Given the dry conditions observed at the time of the field investigation, the watercourse is not considered a permanent feature and is considered to be ephemeral in nature.

No other surface water, groundwater, or fish habitat features were identified on-site.

A fisheries assessment was not conducted as part of this EIS. However, based on observations including lack of sufficient water depth, permanency, and absence of flow, it is assumed that the watercourse does not provide permanent fish habitat but may provide seasonal habitat during

flood conditions associated with the spring freshet. Additionally, the watercourse is assumed to contribute to base flow conditions for downstream fish habitat, particularly during spring freshet and following major precipitation events.

Groundwater investigations were not completed in support of this EIS.

3.5 Vegetation Communities

Vegetation communities on-site were characterized by GEMTEC on September 29, 2022, following protocols utilized in the Southern Ontario Ecological Land Classification System (Lee et al., 2008). Two vegetation communities are described on-site, a cultural meadow and an agricultural field. Table 3.1 below provides a summary of the various vegetation communities identified on-site, while Figure A.3 illustrates the vegetation communities on-site.

The dominant vegetation community on-site was identified as an annual row crop type (OAGM1). Corn (*Zea mays*) was observed as the crop being grown within this community. The annual row crop community occupies approximately 2.49 ha of the site.

The second vegetation community on-site was a small cultural meadow, dominated by herbaceous vegetation typical of wastelands and heavily disturbed areas. As mentioned in section 3.4, moist to wet inclusions were observed within a section of this ecosite. Tree species were confined to the edges of the property and were present along the majority of the subject property boundary. Tree species observed include trembling aspen (*Populus tremuloides*), American elm (*Ulmus americana*) and white birch (*Betula papyrifera*). The cultural meadow occupies approximately 0.56 ha of the site.

A tree conservation report was conducted for the property to identify trees to be retained and protected under future development and, where feasible, identify opportunities to offset the loss of trees that cannot be retained or contribute to the City's forest cover targets. The Tree Conservation Report (TRC) completed for the subject property is provided in Appendix D.

3.6 Wildlife

Wildlife observed on-site and within the study area during field investigations completed in 2022 are summarized in Table C.1 in Appendix C.

4.0 NATURAL HERITAGE FEATURES

Natural heritage features are defined in the PPS as “features and areas, including *significant wetlands, significant coastal wetlands, fish habitat, significant woodlands* south and east of the Canadian Shield, *significant valleylands* south and east of the Canadian shield, *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

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.” As mentioned in Section 1.2, the PPS dictates “development or site alteration shall not be permitted in significant wetlands in Ecoregion 5E, 6E, 7E”

No provincially significant wetlands were identified during the desktop review, nor were they identified on-site. Furthermore, desktop review through NHIC mapping, City of Ottawa mapping and MVCA mapping indicate that no unevaluated wetland habitat occurs on-site or within the study area.

As no PSW or local wetlands have been identified on-site or within the study area they are not discussed or evaluated further in this EIS.

4.2 Significant Woodlands

Significant woodlands are defined in the Natural Heritage Reference Manual (OMNR, 2010) as “an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history.”

At the local scale, significant woodlands are defined and designated by the local planning authority. Generally, most planning authorities have defined significant woodlands as any woodland that contains any of the four criteria listed in Section 7.2 of the natural heritage reference manual (OMNR, 2010), including: woodland size, ecological functions, uncommon characteristics and economic and social functional values. Furthermore, the City of Ottawa provides a supplementary document *Significant Woodland: Guidelines for Identification, Evaluation, and Impact Assessment* (Ottawa, undated) to evaluate woodlands and ensure compliance with the city’s policies.

The City of Ottawa Official Plan defines significant woodlands as “Any treed area meeting the definition of woodlands in the Forestry Act, R.S.O. 1990, c. F.26 or forest in the Ecological Land Classification for Southern Ontario; and in the rural area, meeting any of the criteria in the Natural Heritage Reference Manual, as assessed in a subwatershed planning context and applied in accordance with Council-approved guidelines, where such guidelines exist; or in the urban area, any area 0.8 hectares in size or larger, supporting woodland 60 years of age and older at the time of the evaluation.” As the site occurs within the rural area, the criteria from the Natural Heritage Reference Manual will be used to assess significance. As outlined in *Significant Woodlands: Guidelines for Identification, Evaluation and Impact Assessment* (Ottawa, undated), rural area woodlands are to be identified and evaluated using the natural heritage resource manual (OMNR, 2010) criteria. Table C.2 in Appendix C, presents the screening rationale for significant woodlands applied in this EIS. For comparison of woodland criteria used in Table C.2, it is assumed that the woodland coverage within the planning area (City of Ottawa – Rural Planning Area – Ottawa West) is between 30% and 60% of the land area, therefore the minimum woodland size for determining significance is 50 ha or greater, based on the guidance outlined in the natural heritage reference manual (OMNR, 2010).

Based on a review of screening criteria outlined in the natural heritage reference manual (OMNR, 2010), and observations from the field investigation, the mapped woodlands on-site are more reflective of woodlot inclusions as they are not contiguous with the woodlands to the south. As such, significant woodlands are not present on-site or within the study area and they are not discussed or evaluated further in this EIS.

4.3 Significant Valleylands

Valleylands are defined in the natural heritage reference manual (OMNR, 2010) as ‘a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of time’. The identification and evaluation of significant valleys lands in Ontario is based on the recommended criteria from the MNRF and is the responsibility of local planning authorities.

In Southern Ontario, conservation authorities have identified valleylands as part of their regulation mapping (i.e., floodplain mapping); however, where valleys lands have not been defined, their physical boundaries are generally determined as the ‘top-of-bank’ or ‘top-of-slope’ associated with a watercourse. For less well-defined valleys, the physical boundary may be defined by riparian vegetation, flooding hazard limits, ordinary high water marks or the width of the stream meander belt (OMNR, 2010).

As discussed in Section 3.2, the site is relatively flat, and no valleylands were identified on-site during the desktop review or the field investigations. As such significant valleylands are not discussed or evaluated further in this EIS.

4.4 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 field investigations. Therefore, ANSI are not discussed or evaluated further in this EIS.

4.5 Significant Wildlife Habitat

The natural heritage reference manual (OMNR, 2010), in combination with the significant wildlife habitat technical guide (MNRF, 2000) and the significant wildlife habitat ecoregion criterion schedules (MNRF, 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.3, C.4, C.5 and C.6 in Appendix C, provide the screening rationale for each category of significant wildlife habitat, respectively.

4.5.1 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, 2015a) 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.3 in Appendix C, including a brief description of the rationale as to why they are or are not assessed further in this EIS.

Following review of Table C.3 in Appendix C, no habitats of seasonal concentrations of animals have been identified on-site, as such they are not discussed or evaluated further in this EIS.

4.5.2 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.

4.5.3 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 wildlife habitats are evaluated in Table C.4 in Appendix C.

Following review of Table C.4 in Appendix C, no specialized habitats for wildlife have been identified on-site or within the study area and are not evaluated or discussed further in this EIS.

4.5.4 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 4.5.2 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 (MNR, 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 (OMNR, 2015), provides five general habitat types known to support a wide range of species of conservation concern in Ontario. The five general habitat types for Ecoregion 6E-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 was identified on-site: special concern and rare wildlife species (eastern wood-pewee and wood thrush).

Impacts to habitats of species of conservation concern from the proposed development are discussed in Section 6.

4.5.5 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 (MNR, 2015). The Significant Wildlife Habitat Ecoregion Criterion Schedules for Ecoregion 6E-11 (MNR, 2015), identifies two types of animal movement corridor: amphibian movement corridors and deer movement corridors. As per guidance presented in MNR, 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 MNR district office or by the regional planning authority.

Following review of Table C.6 in Appendix C, no animal movement corridors have been identified on-site. Furthermore, 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). As such, animal movement corridors are not discussed or evaluated further in this EIS.

4.6 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. Based on observations from the field investigation, due to lack of sufficient water depth, water permanency and lack of flow, it is assumed that the watercourse does not provide permanent fish habitat but may provide seasonal habitat during flood conditions associated with the spring freshet or other large storm events. During the spring freshet or other large storm event, it is assumed that the watercourse contributes to baseflow conditions of downstream fish habitat.

Impacts to fish habitat from the proposed development are discussed in Section 6.

4.7 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 regional distribution, 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 the Section 6.3.

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 includes the construction of a warehouse storage facility on the existing 3.05 hectare property. The building will consist of a one-storey, slab on grade warehouse building with a footprint of 10,739 m². Additional components of the proposed development include the creation of a 2.4 ha area to serve as internal road access, parking, and an offloading area. A further 0.7 ha of the existing property will be landscaped, with the retainment of existing trees where possible and proposed tree planting along the west, north, and southern property boundaries. A proposed drainage swale, as part of the stormwater management requirements, is to be created along the northern property boundary within the proposed landscaped area.

Stormwater management for the project is detailed under different cover (Hasen Engineers, Technical Note Site Servicing and Site grading, Erosion and Sediment control, Megha Holdings Inc., 3113 Carp Road, Ottawa, Ontario, November 14, 2025), the reader is directed to this report for further detail regarding stormwater management.

Components of the development will include tree clearing and vegetation grubbing, fill placement and elevation grading, and general landscaping activities.

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 environment of the site from the proposed development outlined in Section 5 include: an increase in impervious surface, increase in stormwater generation, short-term increases in sedimentation and/or erosion and increased noise generation.

6.1 Significant Wildlife Habitat

The potential presence of significant wildlife habitat on-site and within the study area was evaluated in Section 4.5, as a result of this assessment one type of significant wildlife habitat was determined to be present within the study area: habitats of special concern and rare wildlife species (eastern wood-pewee and wood thrush).

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

6.1.1 Habitats of Special Concern and Rare Wildlife Species SWH

Eastern Wood-Pewee

Eastern wood-pewee (*Contopus 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).

The NHIC database indicates occurrence records within 1 km of the site. The eastern wood-pewee was not observed during the field investigation.

Impacts to eastern wood-pewee and their habitat on-site from the proposed development is limited to the wooded hedgerows along the north and southern boundaries of the subject property, which may provide suitable nesting and foraging habitat. Impacts to eastern wood-pewee habitat may include loss of forest habitat, increased fragmentation and increased human presence and disturbance.

While the proposed development may result in a small loss of suitable habitat on-site, suitable habitat is readily available within the broader study area and beyond. Further, tree planting is proposed along the majority of the property boundary, ultimately increasing available habitat. Impacts from increased human presence are anticipated to be negligible given the existing development surrounding the proposed development and the availability of suitable habitat in the broader study area.

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

Wood Thrush

The wood thrush is a medium-sized songbird, similar in shape to an American robin, but slightly smaller. Generally wood thrush plumage is distinct from other thrush species, with rusty-brown upper parts, white underparts and large blackish spots on the breast and sides. The wood thrush is listed as a species of special concern in Ontario.

In Ontario, the wood thrush breeding range extends from southern Ontario north to northern Georgian Bay and eastern Lake Superior (COSEWIC, 2012b). While wood thrush populations have declined over most of its North American range, between 1981 and 2005, breeding bird data indicates populations in Ontario have increased by 4%, likely due to increases in woodland cover south of the Canadian Shield (Cadman et al., 2007). The probability of occurrence in Ontario however, has decreased by 15% between the first and second breeding bird atlas (Cadman et al., 2007).

During the breeding season, the wood thrush is found in moist, deciduous hardwood or mixed forest stands, often in previously disturbed sites with dense, deciduous undergrowth and tall trees that are used as singing perches (COSEWIC, 2012b). For wood thrush, habitat selection is based more on the structure of the forest, preferring sites with lower elevations, trees taller than 16 m, closed canopy (>70%), with a high variety of deciduous species, moist soil and decaying leaf litter (COSEWIC, 2012b).

The NHIC database indicates occurrence records within 1 km of the site. The wood thrush was not observed during the field investigation.

Habitat on-site for wood thrush is limited to the treed hedgerows, that do not represent typically preferred nesting habitat. Impacts to wood thrush habitat may include the loss of treed hedgerow habitat, and increased human interaction.

While the proposed development may result in a small loss of suitable hedgerow habitat on-site, suitable habitat is readily available within the broader study area and beyond. Further, tree planting is proposed along the majority of the property boundary, ultimately increasing available habitat. Impacts from increased human presence are anticipated to be negligible given the existing development surrounding the proposed development and the availability of suitable habitat in the broader study area.

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

6.2 Fish Habitat

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.

No in-water work is anticipated as part of the proposed project, as such, potential impacts to fish habitat are anticipated to be indirect in nature. Potential indirect impacts to water quality and fish habitat from the proposed development may include increased overland flow and concomitant sediment transport caused by an increase in impervious surface area, increased nutrient and/or contaminant loading through both overland and subsurface pathways resulting from landscaping practices. Many of these impacts will be addressed through the implementation of the SWM plan for the property.

Avoidance and mitigation measures intended to protect fish and fish habitat from negative impacts are discussed in Section 7.

6.3 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. Following enactment of Bill 5, species specific habitat regulations are no longer valid for species protection, this includes documents such as general habitat descriptions that outlined Category 1, Category 2 and Category 3 habitats for species. Presently, habitat protections refer to the definition outlined in Bill 5 as follows:

“‘habitat’ means:

- a) *In respect of an animal species:*
 - i. *A dwelling-place such as a den, nest or other similar place, that is occupied or habitually occupied by one or more members of a species for the purposes of breeding, rearing, staging, wintering or hibernating, and*
 - ii. *The area immediately around a dwelling place described in subclause (i) above that is essential for the purposes set out in that subclause*
- b) *In respect of a vascular plant species: the critical root zone surroundings a member of the species, and*
- c) *In respect of all other species: an area on which any member of a species directly depends in order to carry on its life processes”*

Under the ESA, species of special concern and their habitat do not receive protection.

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 4.7, are discussed on a species-by-species basis in subsections below.

6.3.1 Blanding’s Turtle

Blanding’s turtles (*Emydoidea blandingii*) have a highly domed, smooth black carapace with small, irregular tan or yellow flecking. The most distinctive characteristic of this species is the bright yellow chin and throat. Their hinged plastron is yellow with a large dark blotch in the corner of each scute, but may also be entirely black (Oldham and Weller, 2000).

In Canada, Blanding’s turtles are found throughout southern and south-central Ontario from south of Manitoulin Island to western Quebec. In Ontario, Blanding’s turtles are often observed utilizing eutrophic habitats with clear water (COSEWIC, 2005). This turtle species occurs primarily in

shallow water; adults are generally found in open or partially vegetated sites, where as juveniles prefer areas that contain thick aquatic vegetation. Blanding's turtles are known to make large overland journeys between connected lakes, rivers, streams, marshes or ponds, upwards of 6 km in a single active season. Overwintering occurs in permanent pools that average about one metre in depth, or slow flowing streams (COSEWIC, 2005).

During the field investigation, Blanding's turtles were not detected on-site however the site is located within a greater area of known Blanding's turtle occurrences. Based on NHIC observation data the species has been observed within 1 km to the south, southwest, west, east, and southeast of the grid encompassing the site.

Blanding's turtle nests are created in open habitats with low vegetation cover, loose soils, and high sun exposure such as in forest clearings, meadows, shorelines, beaches and gravel roads (Ontario, 2021; COSEWIC, 2016). Suitable Blanding's turtle overwintering habitat typically includes permanent bogs, fens, marshes, ponds, channels or other habitats with free (unfrozen) shallow water. Blanding's turtle may also hibernate within graminoid shallow marsh areas of larger marsh complexes by burying into substrates in areas of pooled water. Blanding's turtle may also overwinter in seasonal pools or small excavated areas with standing water (Ontario, 2021).

Suitable habitat for Blanding's turtles during the active season includes a variety of permanent aquatic features including wetlands such as marsh, swamps, ponds, fens, bogs, slow-flowing streams, shallow bays of lakes or rivers, as well as graminoid shallow marsh and slough forest habitats that are adjacent to larger marsh complexes (Ontario, 2021). Suitable wetlands used during the active season are typically eutrophic (mineral or organic nutrient-rich), shallow with a soft substrate composed of decomposing materials, and often have emergent vegetation, such as water lilies and cattails (Ontario, 2021; COSEWIC, 2016). Although wetlands and ponds are used as movement corridors when available, females can make extensive movements through upland habitat to access nesting sites (Ontario, 2021). Blanding's turtles also make regular overland movements between wetlands throughout the active season (Ontario, 2021).

While the NHIC observations are likely in conjunction with the off-site local wetlands and waterbodies (located approximately 350 m to the west and south of the subject property), the site has the potential for Blanding's turtle or their habitat to occur on-site. However, based on field observations, none of the vegetation communities identified on-site provide suitable habitat for nesting or overwintering Blanding's turtle habitat. Furthermore, the lack of standing water within the adjacent watercourse does not provide suitable permanent aquatic habitat (i.e. no surface water) to support nesting or overwintering habitat.

Potential impacts to individual Blanding's turtle are anticipated to be minimal and are limited to increased interactions with transient Blanding's turtles, particularly during migratory periods. Migration and dispersal take place after the start of the active season, following ice-off, and in September when turtles return to their overwintering habitat. Nesting typically takes place

between late May to early July. Given the proposed development and minimal impact potential to Blanding's turtle and their habitat, it is GEMTEC's opinion that standard avoidance and mitigation measures will be sufficient to mitigate impacts of the proposed project and no ministry consultation is required.

General mitigation measures and best practices intended to Blanding's turtles from negative impacts are discussed in Section 7.

6.3.2 Eastern Red Bat

Eastern red bat (*Lasiurus borealis*) is a medium-large sized (typically 10-17 g), insectivorous bat found in Ontario. The fur of an eastern red bat is usually orange, but can vary from yellowish-red to yellowish-grey, with white or white-tipped hairs (COSEWIC, 2023).

The eastern red bat is found throughout Canada (except Prince Edward Island), the United States, and northeast Mexico; with distribution uncommon west of the Western Cordillera. In Ontario, the species occurs throughout Ontario, appearing as far north as James Bay (COSEWIC, 2023).

Eastern red bats overwinter in warmer climates in the southern extent of the United States, typically beneath leaf litter (COSEWIC, 2023). In comparison to many other Ontario bat species, they do not overwinter in caves. During the spring and summer months, they typically utilize the foliage of trees and occasionally shrubs for roosting habitat, with a preference for roosting near the edge of the crown and at sufficient heights to prevent access from mammalian predators (COSEWIC, 2023).

Although the woodland 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 red bat to occur on the property, primarily for foraging or non-maternal roosting. Impacts to eastern red bat are primarily associated with habitat loss, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect eastern red bat from impacts of the proposed development are discussed in Section 7.

6.3.3 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 south 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 woodland 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.

6.3.4 Hoary Bat

Hoary bat (*Lasiurus cinereus*) is a large (typically 16-38 g), insectivorous bat found in Ontario and is the largest bat found in Canada. The fur of a hoary bat is dense and include a complex mixture of colors, ranging from light to dark brown, and have white tipped hairs on the dorsal and ventral sides (COSEWIC, 2023). The hoary bat is distinguishable by the large size and light yellow-brown fur on the head, throat, and anterior margins of the wings (COSEWIC, 2023).

The hoary bat range spans across all provinces and territories within Canada, all the states within the United States, and has a wide distribution throughout Mexico (COSEWIC, 2023). In Ontario, the hoary bat is found throughout the province, and has been observed north of James Bay (COSEWIC, 2023).

Hoary bats overwinter in warmer climates in the southern extent of the United States, typically beneath leaf litter (COSEWIC, 2023). In comparison to many other Ontario bat species, they do not overwinter in caves. During the spring and summer months, they typically utilize the foliage of trees and occasionally shrubs for roosting habitat, with a preference for roosting near the edge of the crown and at sufficient heights to prevent access from mammalian predators (COSEWIC, 2023).

Although the woodland 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 hoary bat to occur on the property, primarily for foraging or non-maternal roosting. Impacts to hoary bat are primarily associated with habitat loss, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect hoary bat from impacts of the proposed development are discussed in Section 7.

6.3.5 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 clear-cuts are not typically utilized for foraging (COSEWIC, 2013b).

Although the woodland 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.

6.3.6 Silver-haired Bat

Silver-haired bat (*Lasionycteris noctivagans*) is a medium-sized (typically 9-17 g), insectivorous bat. The fur is one of the darkest of all bats in Canada, with black skin membranes and black to dark brown fur (COSEWIC, 2023).

In North America, the silver-haired bat is widely distributed and spans from the southern extent of the Canadian provinces to east-central Mexico (COSEWIC, 2023). In Canada, the distribution spans from coast to coast, but appears to be uncommon in Atlantic Canada. In Ontario, the species occurs throughout Ontario, appearing as far north as James Bay (COSEWIC, 2023).

Silver-haired bats overwinter in mines, rock crevices, trees, and snags across North America, including the United States, the Great Lakes region of Ontario, and in some areas of British Columbia (COSEWIC, 2023). Foraging typically occurs in young and old forests. Silver-haired bat roost primarily under bark and in cavities of trees; however, may occasionally roost on or in buildings (COSEWIC, 2023).

Although the woodland 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 silver-haired bat to occur on the property, primarily for foraging or non-maternal roosting. Impacts to silver-haired bat are primarily associated with habitat loss, encroachment and increased wildlife-human interaction. Mitigation measures intended to protect silver-haired bat from impacts of the proposed development are discussed in Section 7.

6.3.7 Tri-colored Bat

Tri-colored bat (*Perimyotis subflavus*) 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 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 woodland 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 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.

6.4 Cumulative Impacts

Potential cumulative impacts associated with the proposed project include a minor increase in storm water generation, minor increases in nutrient loading to adjacent aquatic features, and minor loss and fragmentation of meadow / field habitat.

Cumulative impacts to the natural environment at the site due to increased human presence are expected to be negligible given the existing commercial and industrial development in the surrounding study area of the Carp corridor.

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.

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 NHFs 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). Buffers recommended in the following subsections and illustrated on Figure A.5. In the subsections below, where possible, literature references for studies used as the basis of the recommended buffer widths are provided.

Beacon Environmental Review of Ecological Buffers (2012), provides a range for buffer widths to protect various NHFs 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.

7.1 Significant Wildlife Habitat

7.1.1 Habitats of Special Concern and Rare Wildlife Species – Eastern Wood-Pewee and Wood Thrush

To protect eastern wood-pewee and wood thrush on-site, vegetation removal should occur outside of March 31 to August 31 to avoid the key breeding bird period as identified by Environment Canada. If vegetation clearing activities cannot take place during the aforementioned timing window, then a nest survey shall be conducted by a qualified professional.

7.2 Fish Habitat

No negative impacts on the function or integrity of the watercourse are anticipated as a result of the proposed development if all mitigation measures recommended below are enacted and best management practices followed.

Watercourse buffer widths have a moderate risk of not providing adequate mitigation for water quality impacts and for human disturbance/land use change impacts at widths between 11 metre and 30 metre and high risk at widths of less than 5 metre to 10 metre. Watercourse buffer widths have a high risk of not providing adequate mitigation for core habitat protection at widths between

5 metre and 20 metre (Beacon, 2012). In consideration of the on-site watercourse and the nature of the proposed development, a minimum 15 metre setback from the watercourse is recommended and is sufficient to protect the watercourse and its associated habitat. No development, site alteration or vegetation removal is permitted within this 15 metre setback. The 15 m setback is consistent with the recommendations from the Carp River Watershed/Subwatershed Study (Robinson, 2004).

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

- A 15 metre wide buffer from the identified watercourse should be adhered to in order to protect ecological function and associated habitat.
- All trees within the 15 m setback, as identified in Appendix D, should remain in place. Should their removal be deemed necessary, they are to be replaced within the same general location at a 1:1 ratio.
- Buffers should be comprised of a mixture of native, self-sustaining trees, shrubs and tall grasses. Disturbed areas of the 15 m setback are to be reseeded to ensure the setback remains fully vegetated.
- 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. 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. Riparian areas within the 15 m buffer should remain in a natural state.
- A stormwater management plan for the property will include water quantity control (through flow restrictors and swales to limit stormwater response) and water quality control (through an oil-grit separator) to provide 80% TSS reduction prior to discharge.
- 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.
- Erosion and Sediment Control (ESC) fencing is recommended at the limit of the development to reduce impacts to the adjacent watercourse. No construction activities (i.e. grading, equipment storage, vegetation removal, refueling, etc.) are to be completed beyond the limits of the ESC fencing.
- 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 highwater 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.

- Signage or fencing should be in place to ensure the snow storage dump operations do not encroach within the 15 m setback.

7.3 Species at Risk

7.3.1 Blanding's Turtle

As discussed in Section 6.4.7, it is GEMTECs opinion that the proposed project will not negatively impact the function of suitable habitat on-site. As such it is GEMTECs opinion that standard avoidance and mitigation measures will be sufficient to mitigate impacts of the proposed project and no ministry consultation is required.

The 15 m setback from the watercourse is sufficient to protect transient Blanding's turtles during migration.

The following best practice measures should be implemented to avoid impacts to transient Blanding's turtles:

- Prior to any site work, silt fencing should be installed around the entire construction area to prohibit the potential migration of Blanding's Turtles, and other wildlife into the construction area. Silt fencing should follow the protocols outlined in the Species at Risk Branch: Best Practices Technical Note: Reptile and Amphibian Exclusion Fencing Version 1.1 (MNRF, July 2013). Temporary fencing should be installed prior to the start of the active season and remain in place throughout the active season of each year of construction.
- Temporary exclusion fencing should be inspected by a designated staff member once per week between April 15 and October 15 of any year. The designated staff member should be trained by a Qualified Professional. Any damage to temporary fencing should be repaired by the end of the business day when the damage is observed.
- Each day of construction a daily pre-work sweep of the construction area should occur to ensure no SAR are present and to remove any wildlife from inside the construction area.
- All staff working on-site should be provided Species at Risk training to identify species at risk which a potential to occur on-site including: Blanding's turtle. Training will also outline the stop work procedures and MECP reporting/consultation prior to resuming work.
- During construction if any SAR is identified on-site all work should stop and a qualified professional and the MECP should be contacted for next steps. Sightings should be reported to the MECP and the NHIC.
- Heavy-duty silt fencing should be installed and maintained during construction and whenever soil is exposed.
- Tree clearing and vegetation removal will be undertaken outside of the active season (April 1 – October 31) for Blanding's turtles. Prior to vegetation removal a sweep will be completed to ensure Blanding's turtles are absent from the 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.
- To protect aquatic habitat for Blanding's turtles, machinery should be maintained in good working condition and all machinery should be fueled a minimum of 30 m from the high water mark.
- To protect aquatic habitat, machinery should be maintained in good working condition and all machinery should be fueled a minimum of 30 m from the high water mark.

7.3.2 SAR Bats

As no critical habitat (i.e. overwintering caves or crevasses, or maternity roosts) were identified on-site, in accordance with MECP best management practices, to protect roosting and foraging bats, tree removal where required shall take place outside of the spring and summer active season (typically March 15 to November 30), when bats are more likely to be using forest habitat. If vegetation clearing cannot avoid the active season, then consultation with the MECP is needed to determine whether the project will require an authorization.

To further protect bat species during vegetation removal, trees, and vegetation (during the appropriate timing window) should be cleared in stages, working from the outer edge, in towards the centre, in order to provide wildlife in the forest time to migrate out.

In GEMTECs experience on similar development applications and consultation with the MECP for projects and properties of similar size and scale, the above mitigation/avoidance measures are sufficient to ensure no negative impacts to SAR bats. In eastern Ontario habitat is not a limiting factor, as such the MECP recommends the use of avoidance timing window for clearing of trees (>10cm in diameter) to avoid impacts to SAR bat species. If timing windows can be adhered to, the project will not impact SAR bats, and it is GEMTECs opinion that no further consultation with the MECP is required.

Should any components of the proposed project require tree clearing within between March 15 and November 30, further consultation with the MECP is required.

7.4 Wildlife

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

- To protect wildlife during construction, construction should be completed in accordance with the best practices outlined in Protocols for Wildlife Protection During Construction, from the City of Ottawa (Ottawa, 2015).
- Development plans should incorporate the City of Ottawa Bird Safe Guidelines to inform building, landscape and lighting design to minimize the threat of bird collisions.

- Vegetation removal should occur outside of April 1 to October 31 to avoid the key breeding bird period, bat summer active season and Blanding's turtle active season. The timing window provides protection of migratory birds, roosting bats and avoids contravention of the Migratory Bird Convention Act and Endangered Species Act. If vegetation clearing activities must take place during the aforementioned timing window then a nest and roost survey shall be conducted by a qualified professional.
- Installation of silt fence barriers around the entire construction envelope to prohibit the emigration of wildlife into the construction area, silt fencing should be checked daily and following each precipitation event.
- 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 shall be contacted immediately and operations ceased to avoid any negative impacts to species at risk or their habitat until further direction is provided by the MECP.

7.5 Best Practice Measures for Mitigation of Cumulative Impacts

The following best 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.
- Maintain as much permeable surface as possible in future development plans to minimize the generation of stormwater 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.
- Drainage swales should be designed with green infrastructure in mind, implementing bioswale/bioretenction functions.
- 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. Space is available post-development within the southern portion of site.

7.6 Carp River Watershed/Subwatershed Study & Carp Road Corridor Community Design Plan BMPs

As the site does contain Headwater Drainage Features (HDFs), watercourses or wetlands, accordingly BMPs relating to watercourse buffers and stream restoration apply to the proposed development. As outlined by Carp River Watershed/Subwatershed BMPs, the recommended setback of 15 metres and revegetating up to 50% of the total stream length with native woody, riparian vegetation should be adhered to. As mentioned in Section 7.1, a 15 metre buffer is recommended to protect the watercourse identified within the study area, which will satisfy the BMP outlined in the Carp River Watershed/Subwatershed study.

With respect to terrestrial systems, the CRCCDP (Robinson, 2004) highlights the need for the protection of core woodland areas (woodlands greater than 50 years of age), riparian habitats and natural linkage corridors. However, as the site does not contain significant urban woodlands, riparian habitat or natural linkage corridors, the environmental protection recommendations from the CRCCDP do not directly apply to the site or the proposed development. Furthermore, the environmental protection measures of the CRCCDP relate to environmental features shown on Schedule 2 of the CRCCDP; none of which occur on the site.

8.0 CONCLUSIONS

The proposed project supported by this EIS is the development of a warehouse storage facility.

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 negative impacts are anticipated from the proposed future 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 negative impacts to natural heritage features identified on-site, including surface water features, significant wildlife habitat, and habitats of species at risk, from future industrial construction are anticipated.
- 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 City of Ottawa Official Plan, the Carp Road Corridor Community Development Plan and the Carp River Watershed/Subwatershed Study.

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), prepared for Lepine Corporation, and is intended for the exclusive use of the Lepine Corporation. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and the Lepine Corporation. 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 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.

Sincerely,



Luca Fiorindi, B.A., Dip.
Junior Biologist



Drew Paulusse, B.Sc.
Senior Biologist

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APPENDIX A

Report Figures

Figure A.1 – Site Location

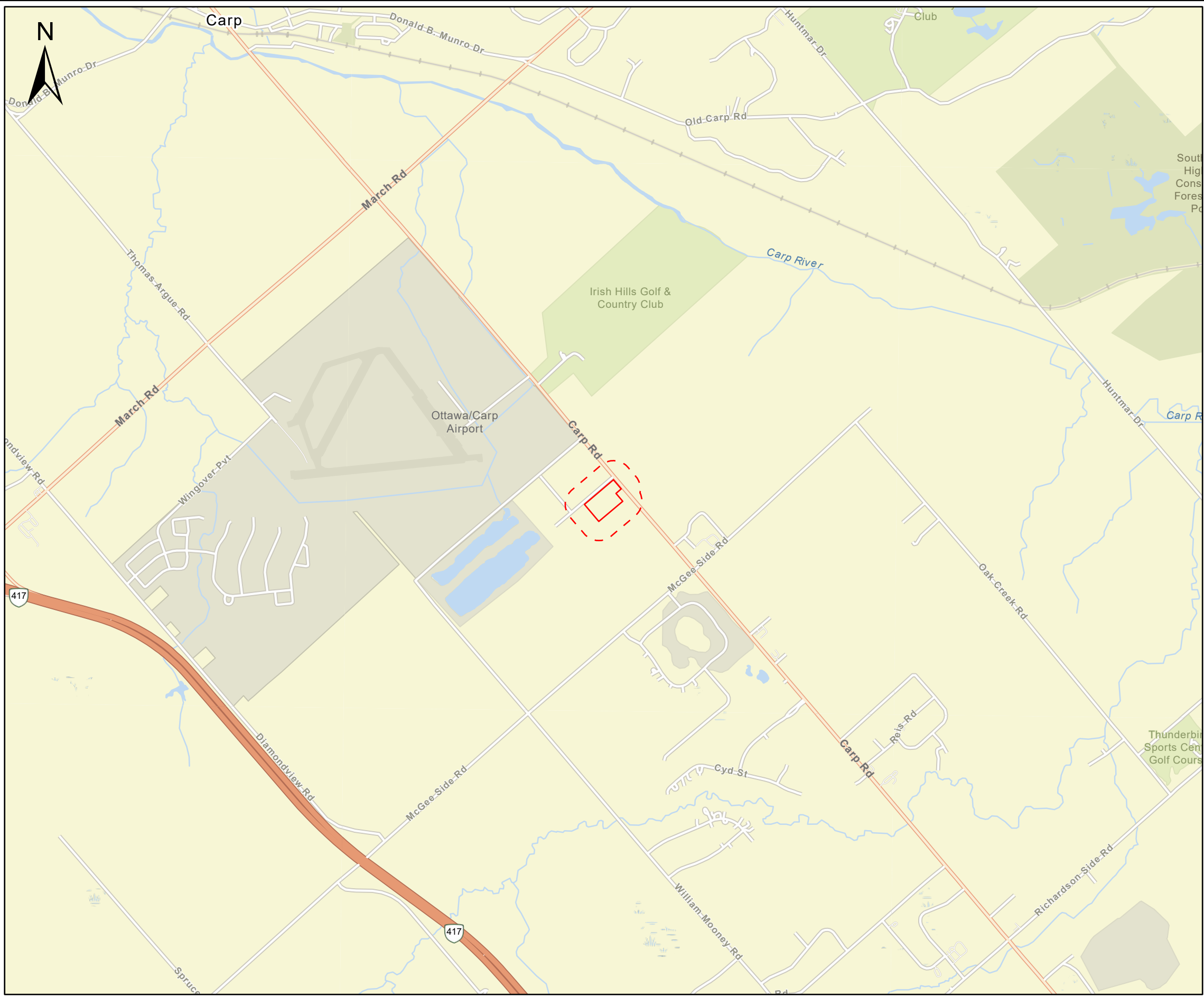
Figure A.2 – Site Layout

Figure A.3 – Vegetation Communities

Figure A.4 – Development Concept

Figure A.5 – Natural Heritage Features

Figure A.6 – Mitigation



Legend

Property Boundary

Study Area

Inset Map

Scale

1:25,000

Meters

0 200 400 800 1,200 1,600



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Client:		Megha Holdings Inc.		Project:		104420.001	
Location							
3113 Carp Road Ottawa, Ontario							
Drwn By:		Chkd By:		Site Location			
EP		DP					
Date: December 2025				Rev.			
© Queen's Printer for Ontario				0		Figure: A.1	

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Street Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
World Topographic Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Legend

- Property Boundary
- Study Area
- Watercourse

Scale

1:2,300

Meters

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Location							
3113 Carp Road Ottawa, Ontario							
Drwn By:		Chkd By:		Site Layout			
EP		DP					
Date: December 2025				Rev.		Figure: A.2	
© Queen's Printer for Ontario				0			



Legend

Property Boundary

Study Area

Watercourse

Vegetation Community

CUM = Cultural Meadow
OAGM1 = Medium Mineral Annual Row Crop

Scale

1:2,300

0

20

40

80

120

160

Meters

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Location 3113 Carp Road Ottawa, Ontario							
Drwn By: EP		Chkd By: DP		Vegetation Communities			
Date: December 2025				Rev. 0		Figure: A.3	
© Queen's Printer for Ontario							

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Imagery: Microsoft, Vantor
Hybrid Reference Layer: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Legend

Property Boundary

Study Area

Watercourse

Development Concept

Building

Landscaped Area

Paved Area

Septic Bed Area

Snow Dump Area

Retaining Pond

WST

Proposed Drainage Swale

Scale

1:2,300

Meters

04080160



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Location 3113 Carp Road Ottawa, Ontario							
Drwn By: EP		Chkd By: DP		Development Concept			
Date: December 2025				Rev. 0		Figure: A.4	
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Legend

- Property Boundary
- Study Area
- Watercourse
- Development Concept
- Proposed Drainage Swale

Scale

1:2,300

0 40 80 160 Meters



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Client:		Megha Holdings Inc.		Project:		104420.001	
Location 3113 Carp Road Ottawa, Ontario							
Drwn By: EP		Chkd By: DP		Natural Heritage Features			
Date: December 2025				Rev. 0		Figure: A.5	
© Queen's Printer for Ontario							



APPENDIX B

Site Photographs



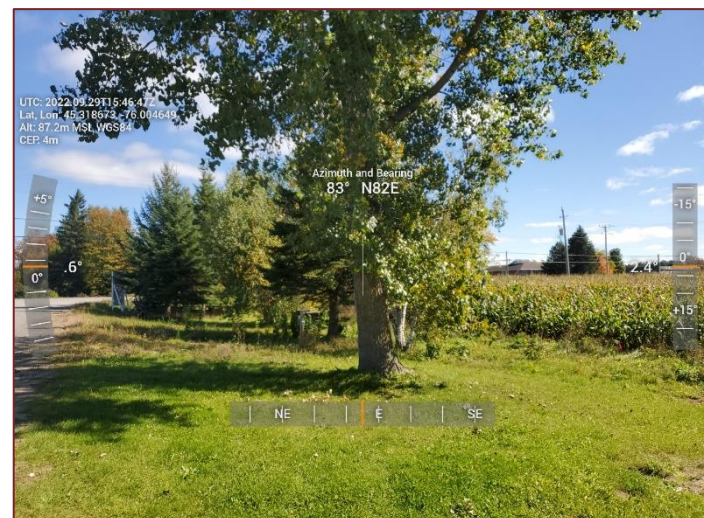
Site Photograph 1 – Medium Mineral Annual Row Crop (OAGM1)



Site Photograph 2 – Medium Mineral Annual Row Crop (OAGM1)



Site Photograph 3 – Medium Mineral Annual Row Crop (OAGM1)



Site Photograph 4 - Medium Mineral Annual Row Crop (OAGM1) with woodlot inclusion



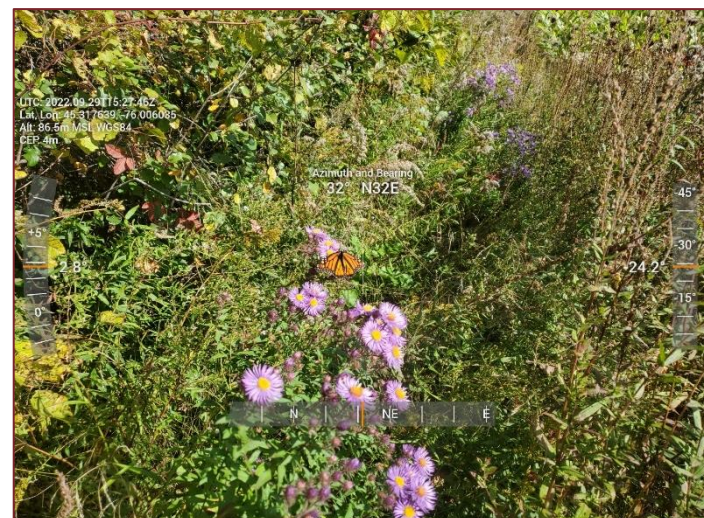
Site Photograph 5 – Cultural Meadow (CUM1)



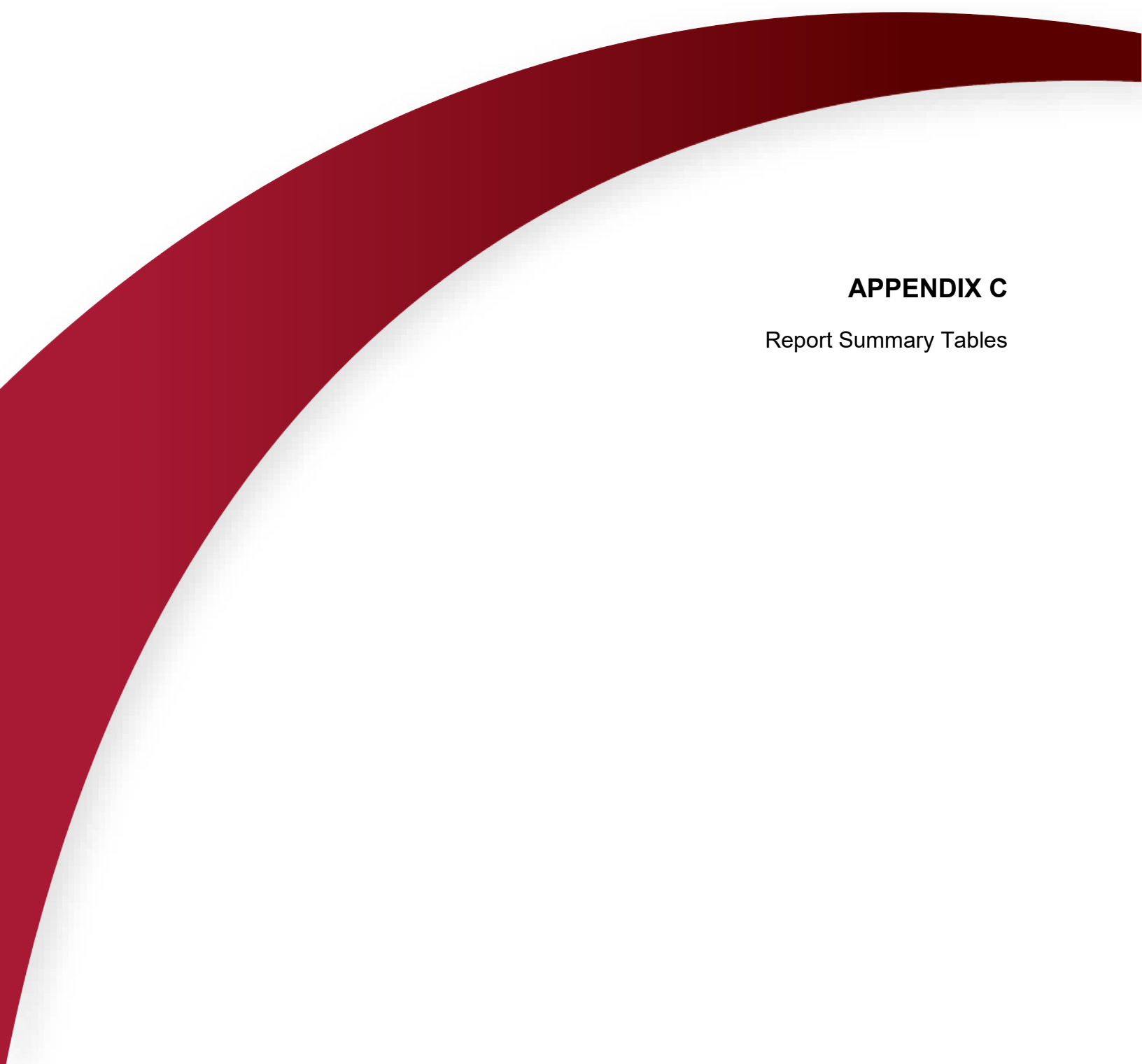
Site Photograph 6 – Cultural Meadow (CUM1)



Site Photograph 7 – Drainage Ditch along
Southeast Property Boundary



Site Photograph 8 – Cultural Meadow (CUM1) with
Monarch Butterfly



APPENDIX C

Report Summary Tables

TABLE C.1
SUMMARY OF WILDLIFE OBSERVED ON-SITE AND WITHIN STUDY AREA

Common Name	Scientific Name	S-Rank	Evidence
Avian Species			
American crow	<i>Corvus brachyrhynchos</i>	S5B	Heard calling
Blue jay	<i>Cyanocitta cristata</i>	S5	Heard calling
Field sparrow	<i>Spizella pusilla</i>	S4B	Heard calling, observed foraging
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>	S5B	Evidence of foraging
Amphibian Species			
Northern leopard frog	<i>Lithobates pipiens</i>	S5	Observed on-site
Insect Species			
Monarch butterfly	<i>Danaus plexippus</i>	S4B	Observed on-site
Mammalian Species			
Red squirrel	<i>Tamiasciurus hudsonicus</i>	S5	Heard calling, observed foraging

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 SIGNIFICANT WOODLANDS

Woodland Criteria	Further Considered in EIS	Rationale
Woodland Size	No	Contiguous woodlands are not present on-site or within the study area. Woodlands on-site are representative of a woodlot inclusion and are not deemed to be contiguous with significant woodland as mapped by the NHIC.
Ecological Functions		
a) Woodland Interior	No	Interior woodlands are not present on-site or within the study area.
b) Proximity	No	Woodlands on-site are not contiguous and do not provide linkages to other natural heritage features.
c) Linkages	No	Woodlands on-site are not contiguous and are not proximate to other natural heritage features.
d) Water Protection	No	Woodlands on-site are not contiguous and do not provide water protection to nearby natural hydrological processes.
e) Diversity	No	Woodlands on-site are not contiguous and no rare species communities were observed on-site.
Uncommon Characteristics	No	Woodlands on-site are not contiguous and do not exhibit uncommon characteristics.
Economical and Social Functional Values	No	Woodlands on-site are not contiguous and do not contain high productivity in terms of economically valuable products, high social value such as recreational use, identified historical cultural or educational values.

TABLE C.3
SCREENING RATIONALE FOR HABITATS OF SEASONAL CONCENTRATION AREAS

Wildlife Habitat	Further Considered in EIS	Rationale
Winter Deer Yard	No	No significant stands of mast producing trees, no large coniferous forest stands on-site to provide protection and cover from winter elements. As outlined in the Significant Wildlife Habitat Criteria Schedules (OMNRF, 2015) winter deer yards and deer management are an MNRF responsibility. Based on review of publicly available data from the OMNRF on Land Information Ontario Geo-hub, no Stratum I deer yards, Stratum II deer yards, or winter congregation areas have been identified on-site or within the broader study area.
Colonial Bird Nesting Habitat	No	No suitable habitat located on-site or within the study area to support colonial bird nesting.
Waterfowl Stopover and Staging Areas	No	Suitable cultural meadow habitat located on-site or within the study area, however, it is not sufficient to meet the defining use criteria for waterfowl use (i.e. no fields with sheet water).
Shorebird Migratory Stopover Area	No	Shorebird stopover sites are typically well-known and have a long history of use. The site does not contain suitable shoreline habitat for shorebird foraging.
Raptor Wintering Area	No	The site does not contain a suitable mix of forest and upland habitat to meet the defining use criteria for raptor wintering.
Bat Hibernacula	No	Cave and crevice habitat is not present on-site or within the study area.
Bat Maternity Colonies	No	Treed habitat on-site do not meet minimum snag density (>10 snags/hectare) requirement to be considered SWH for bat maternity colonies.
Turtle Wintering Area	No	The watercourse within the study area does not provide suitable turtle wintering habitat due to holding insufficient water levels throughout the year.
Reptile Hibernaculum	No	No structures such as large rock piles, bedrock outcrops, cervices or other karstic features have been identified on-site.
Migratory Butterfly Stopover Area	No	The site is not located within 5 km of Lake Ontario and therefore does not meet the defining criteria.
Landbird Migratory Stopover Area	No	The site is not located within 5 km of Lake Ontario and therefore does not meet the defining criteria.

TABLE C.4
SCREENING RATIONALE FOR SPECIALIZED WILDLIFE HABITATS

Specialized Wildlife Habitat	Further Considered in EIS	Rationale
Waterfowl Nesting Area	No	The site lacks suitable upland habitat adjacent to wetlands necessary to support waterfowl nesting.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	No	The site lacks suitable forest community adjacent to a riparian area to support nesting, foraging and perching habitat for Bald Eagle and Osprey.
Woodland Nesting Raptor Habitat	No	No suitable forested habitat has been identified on-site.
Turtle Nesting Habitat	No	While suitable heavily disturbed mineral soils are present on-site, as outlined in the criteria schedules, exposed soils are required to be adjacent (<100 m) or within suitable marsh, shallow water, bog or fen habitats. Exposed soils on site are not within 100m of any suitable habitat outlined in the criteria schedule.
Seeps and Springs	No	No seeps or springs were identified on-site.
Woodland Amphibian Breeding Habitat	No	No suitable wetland or pond habitat is present on-site to support woodland amphibian breeding habitat.
Wetland Amphibian Breeding Habitat	No	No suitable wetland habitat is present on-site to support wetland amphibian breeding.
Woodland Area-Sensitive Bird Breeding habitat	No	No woodlands of adequate size occur on-site to support woodland area-sensitive bird breeding habitat. Needs large mature forest > 30 ha, with interior habitat at least 200 m from forest edge

TABLE C.5
SCREENING RATIONALE FOR SPECIALIZED WILDLIFE HABITATS

General Habitats of Species of Conservation Concern	Further Considered in EIS	Rationale
Marsh Breeding Bird Habitat	No	No suitable wetlands have been identified on-site or adjacent to site to support marsh breeding bird habitat.
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 > 10 ha but have not been actively used for farming. Habitat on-site does not meet the defining use criteria to support shrub/early successional breeding bird habitat.
Terrestrial Crayfish Habitat	No	Terrestrial crayfish are only found within southwestern Ontario (MNR, 2012).
Special Concern and Rare Wildlife Species	Yes	Occurrence data from the NHIC, eBird Atlas, iNaturalist, and Ontario HerpAtlas indicate the following species of special concern to have occurred on-site and/or the surrounding area: eastern wood-pewee and wood thrush.

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 <i>confirmed</i> wetland amphibian breeding habitat has been identified on-site.
Deer Movement Corridor	No	No winter deer yards have been identified on-site by the OMNRF.

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

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Avian				
Bank Swallow	Threatened	Colonial nester, burrows in eroding silt, to sand banks, sand pit walls, etc.	Low	Species has been recorded within 1km of the subject site, based on NHIC observations records, however no suitable silt or sand bank habitat on-site or within the study area. Species was not observed during the field investigation.
Barn Swallow	Special Concern	Nests in barns and other semi-open structures. Forages over open fields and meadows.	Low	No suitable nesting habitat or structures located on-site. Potentially suitable nesting habitat/structures located within study area. eBird occurrence records within 500 metres of site. Species was not encountered during the field investigation.
Bobolink	Threatened	Nests in dense tall grass fields and meadows, low tolerance for woody vegetation.	Low	No suitable grassland habitat on-site. No occurrence records within 1 km of site. Species was not encountered during the field investigation.
Canada Warbler	Special Concern	Prefers wet forests with dense shrub layers	Low	Preferred wet forest habitat is not present on-site.
Cerulean Warbler	Threatened	Prefers mature deciduous forest habitat.	Low	Preferred mature deciduous forest habitat is not present on-site or within study area.
Chimney Swift	Threatened	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	Nests in a variety of open sites: beaches, fields and grave rooftops.	Low	Suitable field habitat may be present within greater study area. eBird occurrence records from 2019 exist within 1 km of site. Species was not encountered during the field investigation.
Eastern Meadowlark	Threatened	Nests and forages in dense tall grass fields and meadows, higher tolerance to woody vegetation.	Low	No suitable grassland habitat present on-site. eBird occurrence records from 2021 and 2022 within 1 km of site. Species was not encountered during the field investigation.
Eastern Whip-poor-will	Special Concern	Nests on the ground in open deciduous or mixed woodlands with little underbrush, and bedrock outcrops.	Low	No suitable woodland habitat occurs on-site or within study area.
Eastern Wood-Pewee	Special Concern	Woodland species, often found near clearings and edge habitat.	Moderate	Suitable woodland edge habitat is present on-site and within the study area. NHIC 1 km grid encompassing site notes an occurrence record. Species was not encountered during the field investigation.
Golden Eagle	Endangered	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	Ground nesting, edge species. Breeds in successional scrub habitats surrounded by forests.	Low	Suitable scrub habitat adjacent to forest not present on-site. No online database occurrence records within 1 km of site. Species was not encountered during the field investigation.
Evening Grosbeak	Special Concern	Nests in trees or large shrubs, preference to large coniferous forests, will use deciduous. Overwinters in Ottawa.	Low	Suitable tree and shrub habitat on-site and within the study area. eBird occurrence records form 2021 within 1 km of site. Species was not encountered during the field investigation.

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

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Henslow's Sparrow	Endangered	Prefers open, moist, tallgrass fields.	Low	Suitable grassland habitat is not present on-site or within the study area.
Loggerhead shrike	Endangered	Prefers 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	Forest edge species, forages in open areas from high vantage points in trees.	Low	Suitable open area habitat adjacent to forest on-site and within the study area. No online database occurrence records within 1 km of site. Species was not encountered during the field investigation.
Peregrine Falcon	Special Concern	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	Nests in the far north, migrant along the shorelines and lagoons of the Ottawa River.	Low	Site lacks suitable shoreline or lagoon habitat.
Red-headed Woodpecker	Endangered	Prefers open deciduous woodlands.	Low	Site lacks suitable open deciduous woodland habitat.
Rusty Blackbird	Special Concern	Wet wooded or shrubby areas (nests at edges of Boreal wetlands)	Low	Suitable wet wooded or shrubby habitat does not occur on-site.
Short-eared Owl	Threatened	Ground nester, prefers open habitats, fields and marshes.	Low	No suitable open field or open marsh habitat on-site.
Wood Thrush	Special Concern	Prefers deciduous or mixed woodlands.	Moderate	Potential suitable woodland habitat within study area. NHIC 1 km grid encompassing site notes an occurrence record. Species was not encountered during the field investigation.
Mammalian				
Eastern Red Bat	Endangered	Roosts in tree foliage; overwinters in leaf litter. Do not roost in anthropogenic structures.	Moderate	Potentially suitable anthropogenic structures adjacent to site. Potential summer habitat present within study area.
Eastern small-footed Myotis	Endangered	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 structures adjacent to site. Potential summer habitat present within study area.
Hoary Bat	Endangered	Roosts in tree foliage; overwinters in leaf litter. Do not roost in anthropogenic structures.	Moderate	Potentially suitable anthropogenic structures adjacent to site. Potential summer habitat present within study area.
Little Brown Myotis	Endangered	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 structures adjacent to site. Potential summer habitat present within study area.

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

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Northern myotis (Northern Long-eared Bat)	Endangered	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 roosts in anthropogenic structures.
Silver-haired bat	Endangered	Roosts in tree foliage. Overwinters in in mines, rock crevices, trees, and snags. May use anthropogenic structures for roosting.	Moderate	Potentially suitable anthropogenic structures adjacent to site. Potential summer habitat present within study area.
Tri-colored Bat	Endangered	Roosts in trees, rock crevices and occasionally buildings during summer. Overwinters in caves and mines.	Moderate	Potentially suitable anthropogenic structures adjacent to site. Potential summer habitat present within study area.
Reptilian				
Blanding's Turtle	Threatened	Inhabits quiet lakes, streams and wetlands with abundant emergent vegetation. Frequently occurs in adjacent upland forests.	Moderate	NHIC observations indicated species has been observed within 1km of the site, however the site and study area do not provide suitable wetland habitat to support Blanding's turtle or their habitat. Occurrence records likely associated with wetland habitat south of site. Potential for transient Blanding's turtles to occur on-site.
Snapping Turtle	Special Concern	Highly aquatic species, found in a wide variety of wetlands, water bodies and watercourses.	Low	No historic occurrence data for species on NHIC database for the site. No critical habitat has been identified on-site. The site does provide potentially suitable aquatic habitat for snapping turtle.
Plants				
American Ginseng	Endangered	Rich, moist, relatively mature deciduous forests.	Low	Suitable habitat does not occur on-site.
Black Ash	Endangered	Predominantly a wetland species, found in swamps, floodplains and fens.	Low	Suitable habitat does not occur on-site. No black ash was observed on-site.
Butternut	Endangered	Inhabits a wide range of habitats including upland and lowland deciduous and mixed forests.	Low	Majority of the site is open and in a regenerative state. iNaturalist indicated historical prevalence of Butternut within 1 km of subject property. No butternuts were observed on-site.
Lichens				
Pale-bellied Frost Lichen	Endangered	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	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.

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

Species	ESA Status	Habitat Use	Probability of Occurrence On-Site or Within Study Area	Rationale
Gypsy Cuckoo Bumble Bee	Endangered	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	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. Species observed on-site.
Mottled Duskywing	Endangered	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	Habitat generalist	Low	No recent occurrence reports in the area, thought to be locally extirpated.
Rusty-patched Bumble Bee	Endangered	Habitat generalist	Low	Currently the only known population occurs in Pinery Provincial Park.
Traverse Lady Beetle	Endangered	Habitat generalist	Low	No new records of traverse lady beetle in Ontario, species thought to be absent in former habitats.
West Virginia White Butterfly	Special Concern	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	Habitat generalist; mixed woodlands, variety of open habitat	Moderate	Potentially suitable foraging habitat for yellow-banded bumble bee occurs on-site.



APPENDIX D

Tree Conservation Report



GEMTEC

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**Tree Conservation Report
Proposed Warehouse Development
3113 Carp Road
Geographic Township of Huntley
Ottawa, Ontario**





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Submitted to:

Megha Holdings
1588 Blohm Drive
Ottawa, Ontario
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**Tree Conservation Report
Proposed Warehouse Development
3113 Carp Road
Geographic Township of Huntley
Ottawa, Ontario**

May 21, 2025
Project: 102180.001

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Appendix C	City of Ottawa Tree Protection Specification

1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Megha Holdings Inc. to carry out a Tree Conservation Report (TCR) for the property located at 3113 Carp Road, Geographic Township of Huntley, in Ottawa, Ontario, hereafter referred to as the “subject property”. The site location is provided in Figure A.1 in Appendix A.

1.1 Purpose

The proponent is seeking to develop a warehouse facility on an approximately 3.05 ha vacant property. In accordance with the City of Ottawa’s Urban Tree Conservation By-Law (No. 2009-200), a Tree Conservation Report (TCR) is required to identify trees to be retained and protected under future development scenarios and, where feasible, identify opportunities to offset the loss of trees that cannot be retained or contribute to the City’s forest cover targets.

The proposed development concept includes the creation of a 0.75 ha warehouse building. The existing site layout and proposed development plan is provided in Figure A.2 in Appendix A.

1.2 Definitions

Terms and abbreviations used throughout the remainder of this report are summarized below.

Diameter at Breast Height (DBH), is defined as the diameter of the tree trunk measured at a height of 1.2 metres above ground surface for trees of 10 centimeters in diameter and greater.

Critical Root Zone (CRZ), is defined as the ground area within a circumference around the tree trunk calculated as 10 centimeters from the trunk of the tree for every one centimeter of tree trunk diameter at breast height.

Distinctive Tree, a distinctive tree within the City of Ottawa is defined as any tree with a DBH of 30 cm or greater within the inner urban area and with a DBH of 50 cm or greater within the suburban area and rural area. For the purposes of this report, a distinctive tree is considered to be a tree with a DBH of 50 cm or greater, as the subject property is located within the rural area.

2.0 METHODOLOGY

2.1 Desktop Review

To complete the TCR, digital colour air photos of the site available from GeoOttawa were reviewed from 1976 to 2021 to identify natural features, including historical trees, present on-site and in the vicinity of the site.

2.2 Field Investigations

In addition to the completion of a desktop review of historical air photos, a site visit was conducted on September 29, 2022, from 9:20 to 11:30, to document and identify all trees on-site with a DBH greater than 10 cm. The site investigation utilized transects bisecting the property to document the health of each tree greater than 10 cm in DBH, the trees location and the tree species.

Site conditions during the site investigation were as follows: 8°C, 10% cloud cover, Beaufort wind 4 and no precipitation.

Site photographs taken during the field investigations are provided in the EIS report Appendix B, to which this report is attached.

3.0 RESULTS

3.1 Existing Conditions

The subject site is currently partially vacant with a portion being used for agricultural crops. The subject site consists of cultural meadow habitat and annual row crop. At the time of the investigation, the row crops were planted with corn. The boundaries of the subject site are lined with trees which are mapped as wooded area on the GeoOttawa online database. A watercourse was identified within the study area just outside of the southern property boundary. Observations from the September field investigation indicate the watercourse is dry late in the season and as such can be classified as ephemeral, only holding water for part of the year during the spring freshet. An unnamed access road branching from Carp Road runs along the northwest property boundary. No other features exist on-site or within the study area.

The proposed development is to take place within the vacant southwestern portion of the subject site. Numerous trees are present on the property, a summary of all trees on-site is provided in Section 3.2 below.

The land use in the vicinity of the site is characterized by commercial, light industrial, mineral extraction, residential and agricultural land uses. Natural features on-site or in the vicinity of the project are summarized in Table 3.1 below.

Table 1.1 Summary of Natural Features Present On-site or Adjacent to Site

Natural Feature	Present On-site or Adjacent
Surface water or wetlands present	Yes
Steep slopes, valleys or escarpments	None
Urban Natural Features or Natural Environment Areas	None
Significant Woodlands	None
Greenspace Linkages	None
High Quality Specimen Trees	None
Rare plant communities or unique environmental features	None
Presence of Species at Risk	Yes
Significant Wildlife Habitat	No

Based on a review of historical air photos, the subject site appears to have been used as an agricultural field since at least 1976 until present day. The surrounding area has been developed commercially and industrially for various businesses since at least 1991. Further, much of the agricultural fields to the south have been abandoned and reclaimed by woodlands since at least 1991. The following alterations were noted during review:

- 1976: The subject property and surrounding lands were primarily populated with agricultural fields, farmhouses, and some fallow fields. The extents of the Carp airport are visible in the northwest corner of the greater study area.
- 1991: Significant development occurred along Carp Road and surrounding land, primarily for commercial and industrial use. Much of the land south of the property had entered a regenerative state with trees colonizing historic agricultural fields. Two large stormwater management ponds had been created south of the site.
- 2008: The northern surrounding area had continued to intensify with more commercial and industrial development. Agricultural land to the southwest continued to be abandoned and reclaimed by woodlands.
- 2021: Land use has not changed significantly. Minimal further industrial development had occurred northwest of the site. The remaining surrounding lands are in present day configuration.

3.2 Tree Inventory Summary

A tree inventory was conducted on September 29, 2022. Trees on-site were identified, enumerated and assessed for visual signs of distress and disease. Table B.1 in Appendix B provides a summary of all tree specimens on-site whose DBH was greater than 10 cm. CRZ values for trees with DBH greater than 10 cm are also present in Table B.1 in Appendix B. Critical Root Zones were not calculated for dead trees. The square root of the sum of squares method was used to calculate the DBH of trees with multiple stems. All trees with a DBH greater than 10 cm and their CRZ are illustrated on Figure A.3, in Appendix A. In general, the tree community assemblage can be described as containing a few mature and mostly semi-mature opportunistic trees.

Per the City of Ottawa By-law No. 2009-200, 9 trees on the subject site were identified as a distinctive trees (DBH > 50 cm). Trees # 1, 2, 4, 8, 9, 10, 17, 29, and 32 have a DBH $\geq$ 50 cm. Distinctive trees 1, 2, 4, 8, 9, 10, and 17 were identified as trembling aspen. Distinctive trees 29 and 32 were identified as white spruce.

None of the trees identified on-site are listed under the provincial Endangered Species Act.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on a review of the information summarized in Section 3.2, Table B.1 in Appendix B and the proposed development concept illustrated on Figure A.2, the following conclusions are provided:

- Out of 86 trees identified on-site with a DBH greater or equal to 10 cm, 42 trees were identified as retainable and 44 trees as non-retainable;
- Out of the 42 retainable trees, 5 trees are dead, dying or in poor condition;
- Out of the 44 non-retainable trees, 13 trees are dead, dying or in poor condition;
- 9 trees on the subject site were identified as distinctive, based on the City of Ottawa By-Law No. 2009-200 requirements. Of these 9 distinctive trees, 7 are retainable and 2 were identified as non-retainable;
- One wildlife tree (#39) was identified within the study area, under the current development plan it is non-retainable;
- Trees on-site are mostly trembling aspen with other opportunistic or early successional species;
- 68 trees are in good/healthy condition and 18 trees are dead, dying or poor condition; and
- None of the 86 trees present on-site are protected under the Endangered Species Act, Ontario 2007, represent exceptional native tree specimens, or provide any significant conservation value.

4.1 Tree Conservation Recommendations

Opportunities exist within the southern most corner, west most corner, and along the northwestern property boundary to retain existing trees. Given the current development plan, potential is present along the northern, eastern, and southern property boundaries to offset the loss of trees that are non-retainable. 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.

4.2 Recommended Mitigation Measures

The following mitigation measures and best practice recommendations are provided by GEMTEC in order to minimize and eliminate negative impacts to trees identified in Appendix B as retainable. Construction contractors shall apply the following measures outlined below to prevent damage to trees identified to be retained in the redevelopment plan for the site;

- All trees identified to be retained should be clearly marked with signage attached that identifies the purpose of the fence and not to move it until construction is complete.
- Tree protection should follow the tree protection specification provided by the City of Ottawa (2019). The Specification is provided in Appendix C.

- If trees to be removed overlap with the CRZ of trees to be retained, cut roots at the edge of the retained CRZ and grind down stumps after tree removal, do not pull out stumps. If roots must be cut, roots 20 cm 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 identified to be retained;
- Do not attach any signs, notices or posters to any tree identified to be retained;
- Do not damage the root system, trunk, or branches or any tree identified to be retained;
- Ensure that exhaust fumes from all equipment are directed away from tree canopy;
- To protect Significant Wildlife Habitat and Habitats of Species at Risk identified on-site, vegetation removal should occur outside of April 1 to September 30 to avoid the key breeding bird period and bat summer active season. The timing window provides protection of migratory birds, roosting bats and avoids contravention of the Migratory Bird Convention Act and Endangered Species Act. If vegetation clearing activities must take place during the aforementioned timing window then a nest and roost survey shall be conducted by a qualified professional

5.0 CLOSURE

This letter and the work referred to within it have been undertaken by GEMTEC Consulting Engineers and Scientists Ltd. (GEMTEC), and was prepared for the Lepine Corporation and is intended for the exclusive use of the Lepine Corporation. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and the Lepine Corporation. 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 letter has been prepared for the application notes 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 for portions of the site that were unavailable for direct investigation.

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

Sincerely,



Luca Fiorindi, B.A., Dip.
Junior Biologist



Drew Paulusse, B.Sc.
Senior Biologist

6.0 REFERENCES

Ottawa, City of (Ottawa). 2022. City of Ottawa Official Plan. November.

Ottawa, City of (Ottawa), By-law No. 2009-200, *Tree Conservation – Urban* (Updated June 2018).



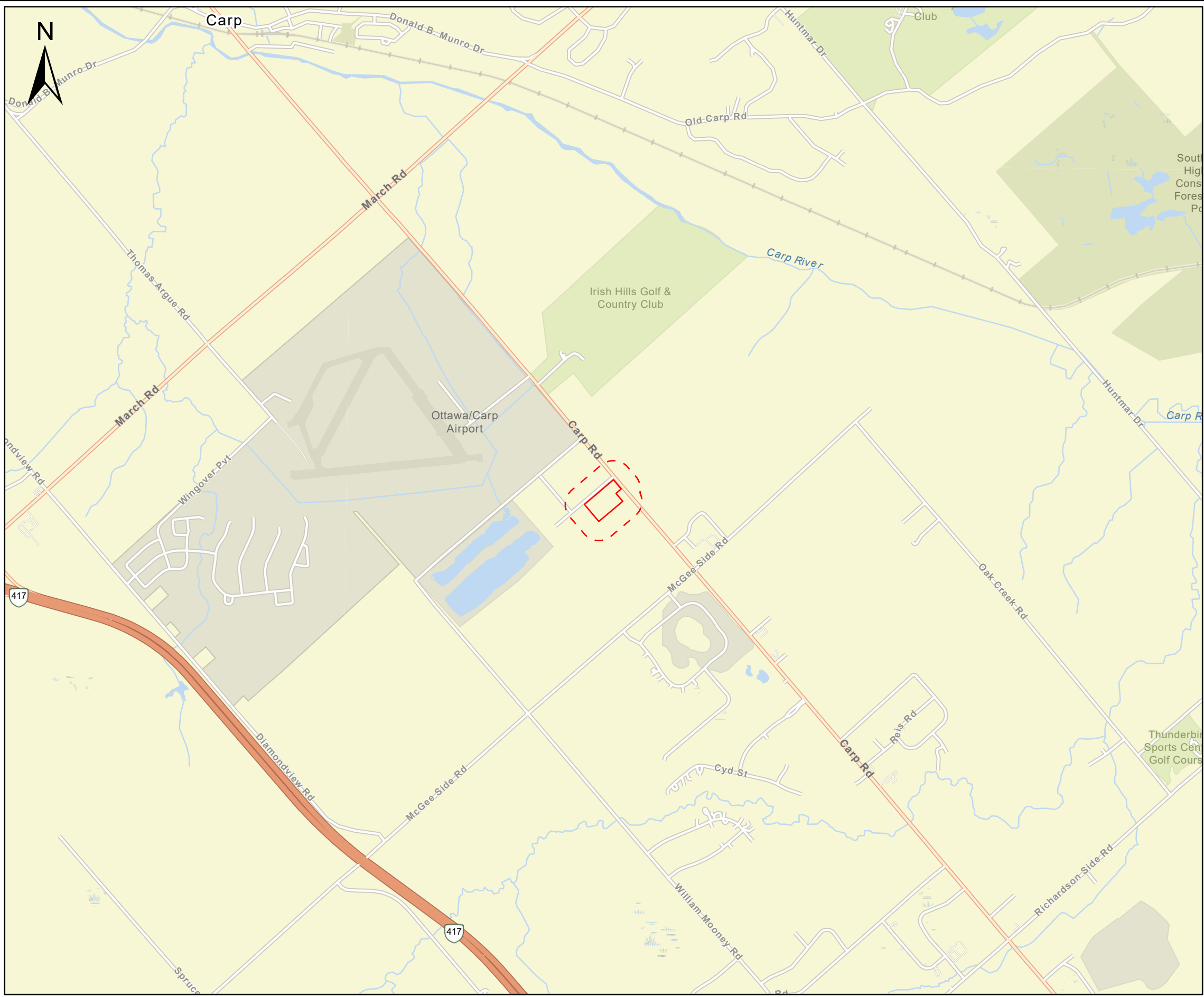
APPENDIX A

Report Figures

Figure A.1 – Site Location

Figure A.2 – Site Layout

Figure A.3 – Tree Inventory



Legend

Property Boundary

Study Area

Inset Map

0 1 2 3 4 5 Kilometers

Scale

1:25,000

Meters

0 200 400 800 1,200 1,600



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Location							
3113 Carp Road Ottawa, Ontario							
Drwn By:		Chkd By:		Site Location			
EP		DP					
Date: December 2025				Rev.			
© Queen's Printer for Ontario				0		Figure: A.1	

Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Street Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
World Topographic Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Legend

- Property Boundary
- Study Area
- Watercourse

Scale

1:2,300

0

25

50

100

150

Meters



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EP		DP					
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Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Imagery: Microsoft, Vantor
Hybrid Reference Layer: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



Legend

Property Boundary

Study Area

Watercourse

Development Concept

Proposed Drainage Swale

Tree with DBH Greater than 10 cm

×

Dead

●

Alive

Scale

1:2,300

0

20

40

80

120

160

Meters

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EP

Chkd By:

DP

Tree Inventory

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Rev.

0

Figure: A.3

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Legend

Property Boundary

Study Area

Development Concept

Proposed Drainage Swale

Tree with DBH Greater than 10 cm

Non-Retainable

Retainable

Dead

Inset Map

Scale

1:300

Meters

051020

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Drwn By: EP		Chkd By: DP		Tree Inventory			
Date: December 2025				Rev. 0		Figure: A.3a	
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Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Imagery: Vantor
World Imagery: Microsoft, Vantor



Legend

- Property Boundary
- Study Area
- Development Concept
- Proposed Drainage Swale

Tree with DBH Greater than 10 cm

- Non-Retainable
- Retainable
- ✕ Dead

Inset Map

Scale

1:600

0 5 10 20 30 40 Meters



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Legend

- Property Boundary
- Study Area
- Development Concept
- Proposed Drainage Swale

Tree with DBH Greater than 10 cm

- Non-Retainable
- Retainable
- Dead

Inset Map

0.00 0.07 0.14 Kilometers

Scale

1:600

0 5 10 20 30 40 Meters

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Location 3113 Carp Road Ottawa, Ontario			
Drwn By: EP	Chkd By: DP	Tree Inventory	
Date: December 2025		Rev. 0	Figure: A.3c
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Coordinate System: NAD 1983 UTM Zone 18N
Service Layer Credits: World Imagery: Vantor
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Legend

Property Boundary

Study Area

Development Concept

Proposed Drainage Swale

Tree with DBH Greater than 10 cm

Non-Retainable

Retainable

Dead

Inset Map

Scale

1:600

Meters

0 5 10 20 30 40

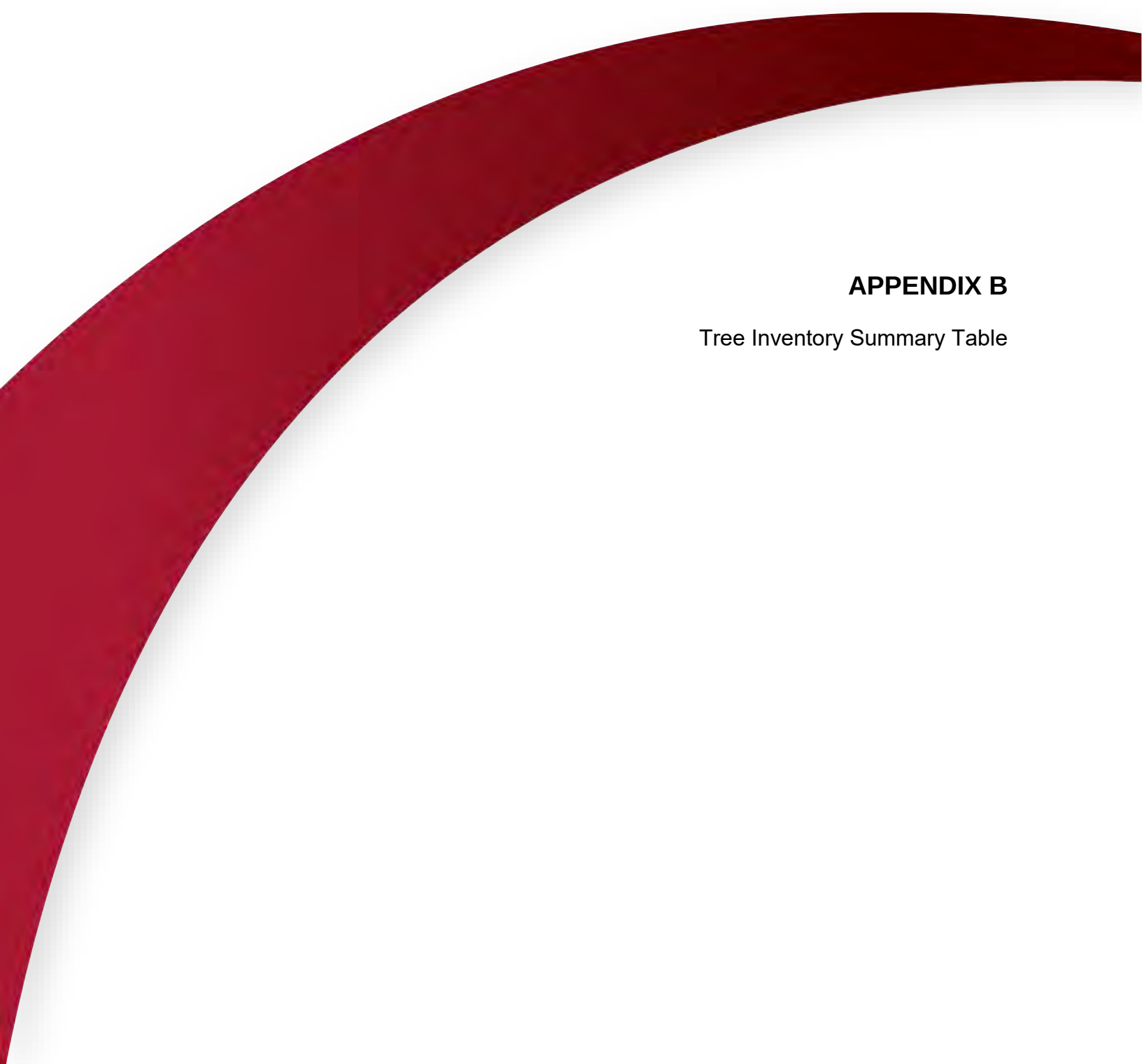


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APPENDIX B

Tree Inventory Summary Table

Table B.1
Summary of Tree Inventory Results

Tree Number	Common Name	Scientific Name	Diameter (cm DBH)	Critical Root Zone (cm)	Condition	Retainable or Conflict	Dinstinctive Tree (> 50 cm)	Wildlife Tree	Notes
1	Trembling Aspen	<i>Populus tremuloides</i>	66	660	Good	Retainable	Yes	No	
2	Trembling Aspen	<i>Populus tremuloides</i>	65	650	Good	Retainable	Yes	No	
3	White Spruce	<i>Picea glauca</i>	13	130	Healthy	Retainable	No	No	
4	Trembling Aspen	<i>Populus tremuloides</i>	84	840	Good	Retainable	Yes	No	DBHs; stem 1 - 55 cm, stem 2 - 50 cm, stem 3 - 45 cm
5	Trembling Aspen	<i>Populus tremuloides</i>	35	350	Poor	Retainable	No	No	
6	American Elm	<i>Ulmus americana</i>	42	420	Poor	Retainable	No	No	
7	Willow sp.	<i>Salix sp.</i>	44	440	Good	Retainable	No	No	
8	Trembling Aspen	<i>Populus tremuloides</i>	70	700	Good	Retainable	Yes	No	
9	Trembling Aspen	<i>Populus tremuloides</i>	64	640	Poor	Retainable	Yes	No	
10	Trembling Aspen	<i>Populus tremuloides</i>	95	950	Good	Retainable	Yes	No	DBHs; stem 1 - 75 cm, stem 2 - 50 cm, stem 3 - 30 cm
11	White Birch	<i>Betula papyrifera</i>	19	190	Good	Retainable	No	No	DBHs; stem 1 - 11 cm, stem 2 - 11 cm, stem 3 - 11 cm
12	Red Pine	<i>Pinus resinosa</i>	28	280	Good	Retainable	No	No	
13	Red Pine	<i>Pinus resinosa</i>	38	380	Good	Retainable	No	No	
14	White Birch	<i>Betula papyrifera</i>	29	290	Good	Retainable	No	No	DBHs; stem 1 - 20 cm, stem 2 - 16 cm, stem 3 - 14 cm
15	Red Pine	<i>Pinus resinosa</i>	29	290	Good	Retainable	No	No	
16	White Birch	<i>Betula papyrifera</i>	26	260	Good	Retainable	No	No	DBHs; stem 1 - 14 cm, stem 2 - 13 cm, stem 3 - 13 cm, stem 4 - 11 cm
17	Trembling Aspen	<i>Populus tremuloides</i>	65	650	Good	Retainable	Yes	No	
18	White Birch	<i>Betula papyrifera</i>	21	210	Good	Retainable	No	No	DBHs; stem 1 - 19 cm, stem 2 - 10 cm
19	Black Spruce	<i>Picea mariana</i>	37	370	Good	Retainable	No	No	
20	White Birch	<i>Betula papyrifera</i>	23	230	Poor	Retainable	No	No	DBHs; stem 1 - 12 cm, stem 2 - 10 cm, stem 3 - 10 cm, stem 4 - 10 cm, stem 5 - 10 cm
21	White Spruce	<i>Picea glauca</i>	27	270	Good	Retainable	No	No	
22	White Spruce	<i>Picea glauca</i>	34	340	Good	Retainable	No	No	
23	White Spruce	<i>Picea glauca</i>	22	220	Good	Retainable	No	No	
24	White Spruce	<i>Picea glauca</i>	26	260	Good	Retainable	No	No	
25	White Spruce	<i>Picea glauca</i>	25	250	Good	Non-Retainable	No	No	
26	White Spruce	<i>Picea glauca</i>	30	300	Good	Retainable	No	No	
27	American Elm	<i>Ulmus americana</i>	14	140	Good	Non-Retainable	No	No	
28	American Elm	<i>Ulmus americana</i>	27	270	Poor	Retainable	No	No	
29	White Spruce	<i>Picea glauca</i>	50	500	Good	Non-Retainable	Yes	No	
30	White Spruce	<i>Picea glauca</i>	45	450	Good	Non-Retainable	No	No	
31	White Spruce	<i>Picea glauca</i>	30	300	Good	Non-Retainable	No	No	
32	White Spruce	<i>Picea glauca</i>	60	600	Good	Non-Retainable	Yes	No	
33	Common Buckthorn	<i>Rhamnus cathartica</i>	22	220	Poor	Non-Retainable	No	No	DBHs; stem 1 - 13 cm, stem 2 - 11 cm, stem 3 - 10 cm, stem 4 - 10 cm
34	Common Buckthorn	<i>Rhamnus cathartica</i>	17	170	Poor	Non-Retainable	No	No	DBHs; stem 1 - 10 cm, stem 2 - 10 cm, stem 3 - 10 cm
35	Common Buckthorn	<i>Rhamnus cathartica</i>	22	220	Good	Non-Retainable	No	No	DBHs; stem 1 - 12 cm, stem 2 - 11 cm, stem 3 - 10 cm, stem 4 - 10 cm
36	American Elm	<i>Ulmus americana</i>	26	260	Poor	Non-Retainable	No	No	
37	Norway Spruce	<i>Picea abies</i>	40	400	Healthy	Non-Retainable	No	No	
38	Manitoba Maple	<i>Acer negundo</i>	10	100	Poor	Non-Retainable	No	No	
39	Crabapple sp.	<i>Malus sp.</i>	35	350	Poor	Non-Retainable	No	Yes	
40	Manitoba Maple	<i>Acer negundo</i>	35	350	Good	Non-Retainable	No	No	DBHs; stem 1 - 23 cm, stem 2 - 20 cm, stem 3 - 17 cm
41	Common Buckthorn	<i>Rhamnus cathartica</i>	15	150	Good	Non-Retainable	No	No	
42	Common Buckthorn	<i>Rhamnus cathartica</i>	10	100	Good	Non-Retainable	No	No	
43	Trembling Aspen	<i>Populus tremuloides</i>	45	450	Healthy	Non-Retainable	No	No	
44	Trembling Aspen	<i>Populus tremuloides</i>	28	280	Good	Non-Retainable	No	No	
45	Trembling Aspen	<i>Populus tremuloides</i>	17	170	Good	Non-Retainable	No	No	
46	Trembling Aspen	<i>Populus tremuloides</i>	34	340	Good	Non-Retainable	No	No	
47	Trembling Aspen	<i>Populus tremuloides</i>	33	330	Good	Non-Retainable	No	No	
48	Trembling Aspen	<i>Populus tremuloides</i>	20	200	Dead	Non-Retainable	No	No	
49	American Elm	<i>Ulmus americana</i>	18	180	Poor	Non-Retainable	No	No	
50	American Elm	<i>Ulmus americana</i>	16	160	Poor	Non-Retainable	No	No	
51	American Elm	<i>Ulmus americana</i>	17	170	Poor	Non-Retainable	No	No	
52	Common Buckthorn	<i>Rhamnus cathartica</i>	13	130	Poor	Non-Retainable	No	No	
53	American Elm	<i>Ulmus americana</i>	10	100	Poor	Non-Retainable	No	No	

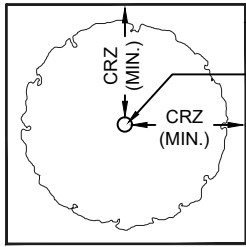
Table B.1
Summary of Tree Inventory Results

Tree Number	Common Name	Scientific Name	Diameter (cm DBH)	Critical Root Zone (cm)	Condition	Retainable or Conflict	Dinstinctive Tree (> 50 cm)	Wildlife Tree	Notes
54	Trembling Aspen	<i>Populus tremuloides</i>	13	130	Good	Non-Retainable	No	No	
55	Trembling Aspen	<i>Populus tremuloides</i>	15	150	Good	Non-Retainable	No	No	
56	Trembling Aspen	<i>Populus tremuloides</i>	14	140	Good	Non-Retainable	No	No	
57	White Ash	<i>Fraxinus americana</i>	12	120	Poor	Non-Retainable	No	No	
58	Trembling Aspen	<i>Populus tremuloides</i>	16	160	Poor	Non-Retainable	No	No	
59	Trembling Aspen	<i>Populus tremuloides</i>	14	140	Good	Non-Retainable	No	No	
60	Willow sp.	<i>Salix sp.</i>	29	290	Good	Non-Retainable	No	No	DBHs; stem 1 - 20 cm, stem 2 - 16 cm, stem 3 - 13 cm
61	Trembling Aspen	<i>Populus tremuloides</i>	25	250	Good	Retainable	No	No	
62	Trembling Aspen	<i>Populus tremuloides</i>	40	400	Good	Retainable	No	No	DBHs; stem 1 - 27 cm, stem 2 - 26 cm, stem 3 - 13 cm
63	Trembling Aspen	<i>Populus tremuloides</i>	23	230	Good	Retainable	No	No	
64	Trembling Aspen	<i>Populus tremuloides</i>	14	140	Good	Retainable	No	No	
65	Trembling Aspen	<i>Populus tremuloides</i>	10	100	Good	Retainable	No	No	
66	Trembling Aspen	<i>Populus tremuloides</i>	15	150	Good	Non-Retainable	No	No	
67	Trembling Aspen	<i>Populus tremuloides</i>	23	230	Good	Non-Retainable	No	No	
68	Trembling Aspen	<i>Populus tremuloides</i>	20	200	Good	Retainable	No	No	
69	Trembling Aspen	<i>Populus tremuloides</i>	21	210	Good	Retainable	No	No	
70	Trembling Aspen	<i>Populus tremuloides</i>	19	190	Good	Non-Retainable	No	No	
71	Trembling Aspen	<i>Populus tremuloides</i>	20	200	Good	Non-Retainable	No	No	
72	Trembling Aspen	<i>Populus tremuloides</i>	14	140	Good	Non-Retainable	No	No	
73	Trembling Aspen	<i>Populus tremuloides</i>	16	160	Good	Retainable	No	No	
74	Trembling Aspen	<i>Populus tremuloides</i>	19	190	Good	Retainable	No	No	
75	Trembling Aspen	<i>Populus tremuloides</i>	23	230	Good	Retainable	No	No	
76	Trembling Aspen	<i>Populus tremuloides</i>	33	330	Good	Retainable	No	No	
77	Trembling Aspen	<i>Populus tremuloides</i>	13	130	Good	Retainable	No	No	
78	Trembling Aspen	<i>Populus tremuloides</i>	20	200	Good	Retainable	No	No	
79	Trembling Aspen	<i>Populus tremuloides</i>	13	130	Good	Non-Retainable	No	No	
80	Trembling Aspen	<i>Populus tremuloides</i>	20	200	Good	Retainable	No	No	
81	Trembling Aspen	<i>Populus tremuloides</i>	29	290	Good	Non-Retainable	No	No	
82	Trembling Aspen	<i>Populus tremuloides</i>	13	130	Good	Non-Retainable	No	No	
83	White Ash	<i>Fraxinus americana</i>	11	110	Good	Non-Retainable	No	No	
84	Trembling Aspen	<i>Populus tremuloides</i>	12	120	Good	Non-Retainable	No	No	
85	Trembling Aspen	<i>Populus tremuloides</i>	20	200	Good	Retainable	No	No	
86	Trembling Aspen	<i>Populus tremuloides</i>	23	230	Good	Retainable	No	No	

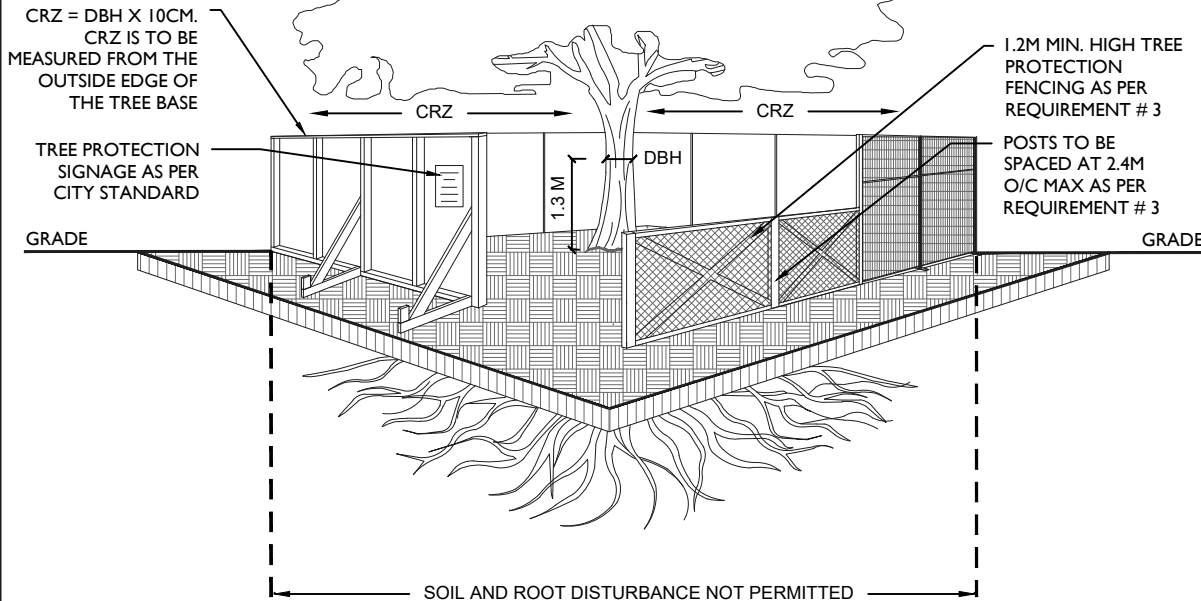


APPENDIX C

City of Ottawa Tree Protection Specification



PLAN VIEW



ACCESSIBLE FORMATS AND COMMUNICATION
SUPPORTS ARE AVAILABLE, UPON REQUEST

TREE PROTECTION REQUIREMENTS:

1. PRIOR TO ANY WORK ACTIVITY WITHIN THE CRITICAL ROOT ZONE (CRZ = 10 X DIAMETER) OF A TREE, TREE PROTECTION FENCING MUST BE INSTALLED SURROUNDING THE CRITICAL ROOT ZONE, AND REMAIN IN PLACE UNTIL THE WORK IS COMPLETE.
2. UNLESS PLANS ARE APPROVED BY CITY FORESTRY STAFF, FOR WORK WITHIN THE CRZ:
 - DO NOT PLACE ANY MATERIAL OR EQUIPMENT - INCLUDING OUTHOUSES;
 - DO NOT ATTACH ANY SIGNS, NOTICES OR POSTERS TO ANY TREE;
 - DO NOT RAISE OR LOWER THE EXISTING GRADE;
 - TUNNEL OR BORE WHEN DIGGING;
 - DO NOT DAMAGE THE ROOT SYSTEM, TRUNK, OR BRANCHES OR ANY TREE;
 - ENSURE THAT EXHAUST FUMES FROM ALL EQUIPMENT ARE NOT DIRECTED TOWARD ANY TREE CANOPY.
 - DO NOT EXTEND HARD SURFACE OR SIGNIFICANTLY CHANGE LANDSCAPING
3. TREE PROTECTION FENCING MUST BE AT LEAST 1.2M IN HEIGHT, AND CONSTRUCTED OF RIGID OR FRAMED MATERIALS (E.G. MODULOC - STEEL, PLYWOOD HOARDING, OR SNOW FENCE ON A 2"X4" WOOD FRAME) WITH POSTS 2.4M APART, SUCH THAT THE FENCE LOCATION CANNOT BE ALTERED. ALL SUPPORTS AND BRACING MUST BE PLACED OUTSIDE OF THE CRZ, AND INSTALLATION MUST MINIMISE DAMAGE TO EXISTING ROOTS. (SEE DETAIL)
4. THE LOCATION OF THE TREE PROTECTION FENCING MUST BE DETERMINED BY AN ARBORIST AND DETAILED ON ANY ASSOCIATED PLANS FOR THE SITE (E.G. TREE CONSERVATION REPORT, TREE INFORMATION REPORT, ETC). THE PLAN AND CONSTRUCTED FENCING MUST BE APPROVED BY CITY FORESTRY STAFF PRIOR TO THE COMMENCEMENT OF WORK.
5. IF THE FENCED TREE PROTECTION AREA MUST BE REDUCED TO FACILITATE CONSTRUCTION, MITIGATION MEASURES MUST BE PRESCRIBED BY AN ARBORIST AND APPROVED BY CITY FORESTRY STAFF. THESE MAY INCLUDE THE PLACEMENT OF PLYWOOD, WOOD CHIPS, OR STEEL PLATING OVER THE ROOTS FOR PROTECTION OR THE PROPER PRUNING AND CARE OF ROOTS WHERE ENCOUNTERED.

THE CITY'S TREE PROTECTION BY-LAW, 2020-340 PROTECTS BOTH CITY-OWNED TREES, CITY-WIDE, AND PRIVATELY-OWNED TREES WITHIN THE URBAN AREA. PLEASE REFER TO WWW.OTTAWA.CA/TREEBYLAW FOR MORE INFORMATION ON HOW THE TREE BY-LAW APPLIES.



TREE PROTECTION SPECIFICATION

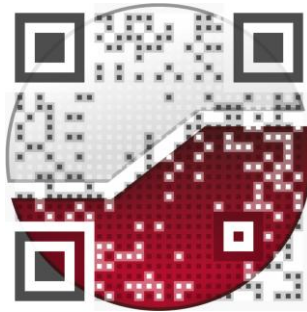
TO BE IMPLEMENTED FOR RETAINED TREES, BOTH ON SITE AND ON ADJACENT SITES, PRIOR TO ANY TREE REMOVAL OR SITE WORKS AND MAINTAINED FOR THE DURATION OF WORK ACTIVITIES ON SITE.

SCALE: NTS

DATE: MARCH 2021

DRAWING NO.: 1 of 1

experience • knowledge • integrity



civil
geotechnical
environmental
field services
materials testing

civil
géotechnique
environnementale
surveillance de chantier
service de laboratoire des matériaux

expérience • connaissance • intégrité

