

2555 Erin Centre Boulevard Mississauga, Ontario

Environmental Impact Study (EIS) Report

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Submitted by:

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1.0 Executive Summary

This Environmental Impact Study (EIS) was prepared in support of site plan approval for proposed development at 2555 Erin Centre Boulevard in the City of Mississauga for Starmont Estates Inc. The findings of the 2024 field investigations, which consisted of secondary source reviews, ELC, botanical inventory, and breeding bird survey, completed for the Study Area are presented in this EIS. Due to the presence of natural heritage features adjacent to the Property with the potential to be impacted by development activities, this EIS was prepared in consideration of the City's EIS ToR (2002).

Through background review and field studies, it was determined that the Property consists of Mixed Use commercial buildings that include retail stores, restaurants etc. and associated parking lots. The forested portion of the Study Area, Erin Woods Park, along the northern Property border is part of the Region and City's Greenland system. The dripline of this woodlot overlaps with the northern Property boundary and the canopy covers sections of manicured lawn and paved surfaces. Appropriate buffers will be established to protect the Natural Heritage System (NHS), the habitat and ecological functions it provides. In addition, buffer plantings and enhancement planting of native species will be used within and adjacent to the Property. On City owned lands to the east of the Property exists a non-native/invasive species (e.g., Common Buckthorn, Tatarian Honeysuckle) dominated thicket that abuts the woodlot. With consideration to reducing or avoiding potential adverse environmental impacts and enhancing significant natural features, SCS and Starmont Estates are proposing a net benefit gain (0.323 ha, Figure 4) to the NHS, compared to the 0.149 ha a 10 m buffer would provide, and ensuring minimal potential impacts caused by proposed development.

Potential adverse ecological impacts of development may include tree and vegetation removal, diversion of surface water flows, sedimentation into forest areas, and loss of potential wildlife habitat. Potential adverse effects to the woodlot will be minimized through careful planning and execution of construction activities. These goals will be achieved through native buffer plantings, restoration of immediately adjacent lands, and strategic grading/excavation plans further discussed with additional Proposed Mitigation Measures (Section 9). As such, a Landscaping and Planting Plan has been developed by SBK to provide buffer plantings, restore the thicket on City owned lands, and assist in preventing the colonization of non-native/invasive species. The addition to the NHS through the restoration of the Mixed Thicket will improve edge habitat, increase native plant species abundance and diversity, increase the size of the woodlot, remove harmful invasive species, and provide community members with more naturalized green space as they enter the trail network.



A Storm Water Management (SWM) Plan has also been created by SCS to ensure the maintenance of existing surface water flow patterns. An Erosion and Sediment Control (ESC) Plan will be developed during the detailed design stage to ensure proposed development activities do not potentially adversely affect natural features in proximity to the Property. Additionally, an Environmental Monitoring Plan (EMP) is recommended during the active construction period to monitor the effectiveness of mitigation strategies being implemented to protect the natural environment.

Based on the information currently available and presented in this report, proposed development is in accordance with the intent of the applicable policies described in the Overview of Environmental Policy Framework (Section 3) of this report.

2.0 Introduction

SCS Consulting Limited (SCS) was retained by Starmont Estates Incorporated, to complete an EIS in support of natural feature delineation of the adjacent woodlot (Erin Woods Park) and proposed redevelopment of 2555 Erin Centre Blvd. (the Property). The identification of preliminary proposed restoration and enhancement opportunities to the natural heritage network, delineation of ecological buffers, and the confirmation of core features are discussed.

The purpose of this EIS is to:

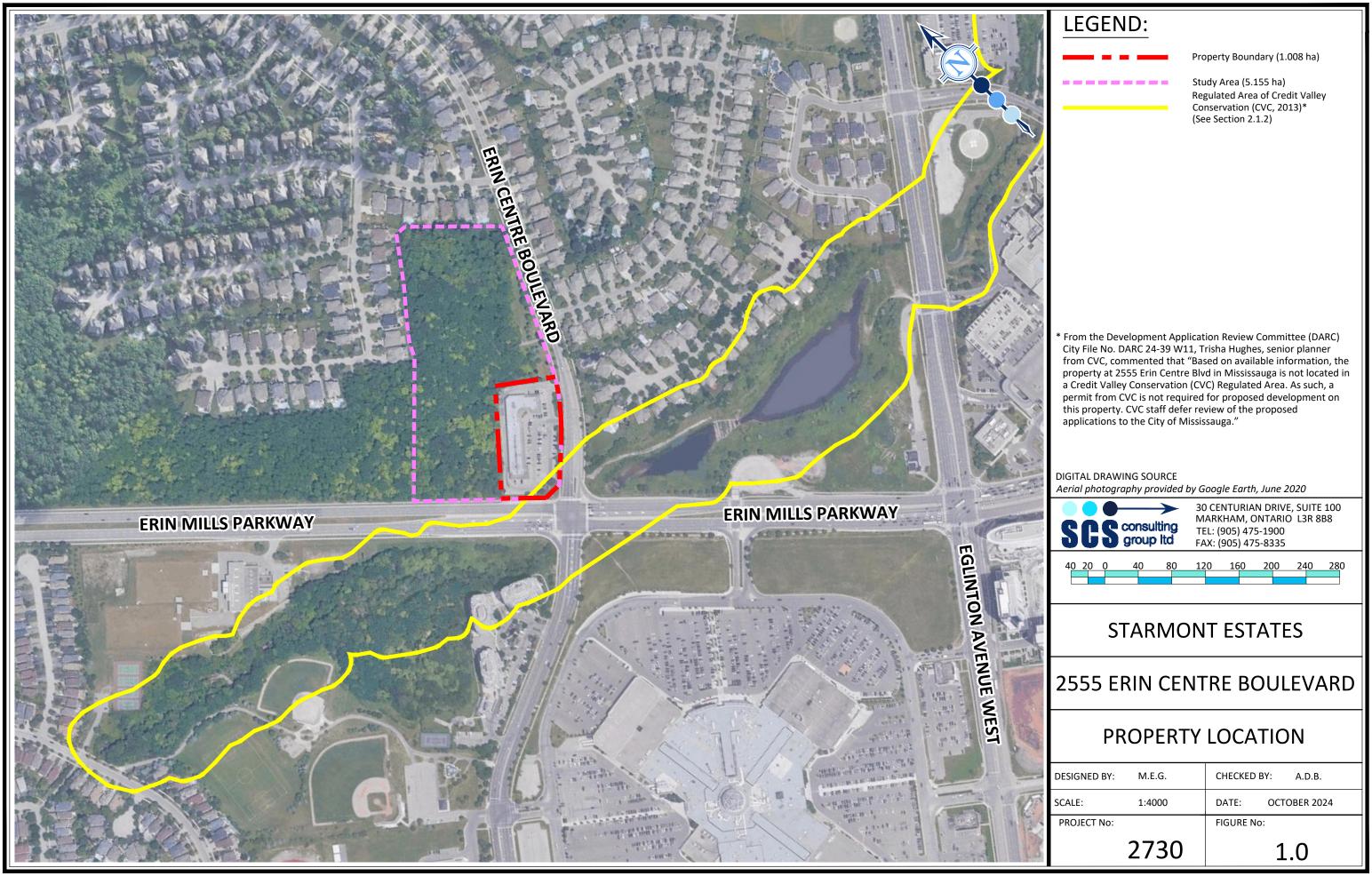
- Provide an in-depth natural heritage characterization of ecological features and functions through background review and field investigations;
- Identify environmental constraints and development limits in support of a Site Plan Application;
- Provide recommendations related to future development with the intention to reduce or avoid potential adverse environmental impacts; and
- Enhance significant natural features and functions where possible.

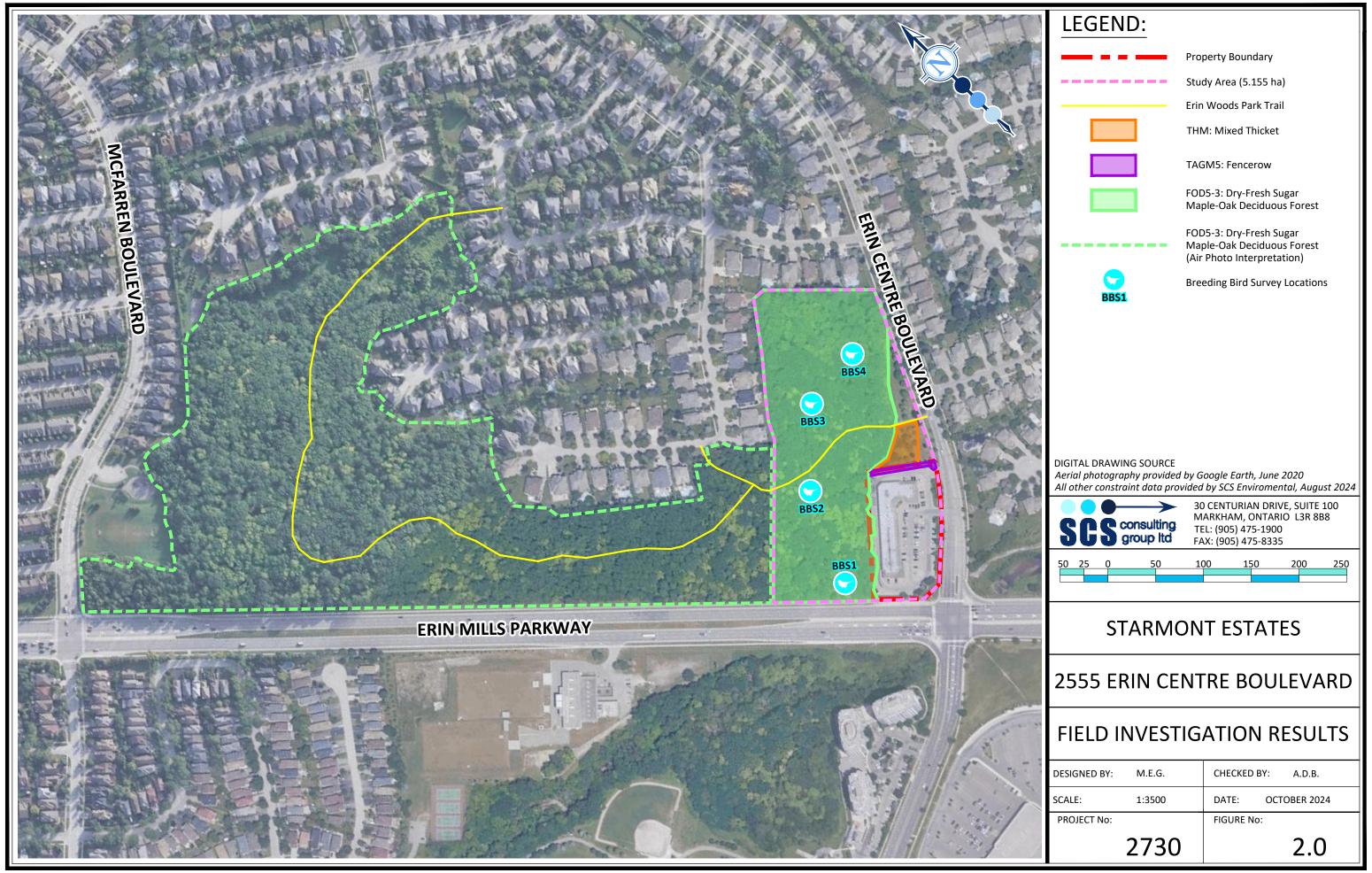
The assessment of potential impacts and the implementation of appropriate mitigation strategies will be based on the characterization of natural features described in this report.

2.1 Subject Property and Study Area

2555 Erin Centre Boulevard is located in southern Ontario in the Region of Peel (the Region), within the city of Mississauga (the City). As depicted in **Figure 1**, the Property is a total of 1.008 ha and the current land use is a multiuse plaza with a parking lot. It is located northwest of Erin Centre Boulevard and northeast of Erin Mills Parkway. The adjacent forest known as Erin Woods Park is owned by the City and identified as a significant woodlot and part of the Natural Heritage System. The Property and immediate surrounding lands, including a portion of Erin Woods Park, will herein be referred to as the Study Area (**Figure 2**).







3.0 Overview of Environmental Policy Framework

The most recently updated version of relevant planning policy documents, legislations, and regulatory requirements have been reviewed for the purposes of the following discussion. The context provided relates to environmental land use policies applicable to the Study Area at the time of writing this report. This section is not intended as a fulsome land use planning assessment as it focuses on relevant environmental planning policies and regulations, and the documents referenced should be reviewed in their entirety for additional land use planning information/policies related to the proposed development (See **Appendix A** for relevant Policy Planning Schedules and Maps).

The regulatory framework provided displays a summary of key applicable environmental legislations, policies, and regulations related to the protection, management, and enhancement of natural heritage resources. These documents are used to guide the constraint and mitigation recommendations in **Section 9**, as well as ensure that proposed development plans comply with outlined requirements.

3.1 Provincial Framework

3.1.1 Provincial Planning Statement, 2024

The Provincial Planning Statement (PPS), 2024, is a province-wide planning policy framework that provides policy direction to municipalities on matters of provincial interest that relate to land use planning and development in Ontario. It replaces both the Provincial Policy Statement, 2020, and A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019, while building upon housing-supportive policies from both documents. The PPS provides a plan for efficient land use and development while managing resources, natural heritage, and the impacts of natural hazards. Section 4.1 Natural Heritage and 4.2 Water policies provide protection and management for natural features and areas.

The Natural Heritage System (NHS) is defined in Section 8 as "a system made up of natural heritage features and areas, and linkages intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include natural heritage features and areas, federal and provincial parks and conservation reserves, other natural heritage features, lands that have been restored or have the potential to be restored to a natural state, areas that support hydrologic functions, and working landscapes that enable ecological functions to continue. The Province has a recommended approach for identifying natural heritage systems, but municipal approaches that achieve or exceed the same objective may also be used."

In accordance to Section 4.1, development and site alteration shall not be permitted in:

- significant wetlands in Ecoregions 5E, 6E and 7E1;
- significant coastal wetlands;
- significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E1;
- significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;
- significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;
- significant wildlife habitat;
- significant areas of natural and scientific interest;
- coastal wetlands in Ecoregions 5E, 6E and 7E1 that are not subject to policy
 4.1.4;
- fish habitat except in accordance with provincial and federal requirements;
- habitat of endangered species and threatened species, except in accordance with provincial and federal requirements; and on
- adjacent lands to the natural heritage features and areas identified in policies
 4.1.4, 4.1.5, and 4.1.6

Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

The PPS (2024) describes "significant" as:

- "in regard to wetlands, coastal wetlands and areas of natural and scientific interest, an area identified as provincially significant using evaluation criteria and procedures established by the Province, as amended from time to time;
- in regard to woodlands, 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. These are to be identified using criteria and procedures established by the Province;
- in regard to other features and areas in policy 4.1, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system;

While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation."

The PPS (2024) describes "sensitive" as:

"in regard to surface water features and ground water features, means features that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, and additions of pollutants."

The Property is located in Ecoregion 7E and generally does not appear to support any designated natural heritage features, although the adjacent woodlot is part of the City's Natural Heritage System (NHS) as stated in their Official Plan (Figure 2, Appendix A). The potential significance of natural heritage features can be characterized based on species diversity, size, age, linkage functions, and the presence of sensitive or rare species, and considers the degree of disturbance and adjacent land uses. Significant Wildlife Habitat Criteria Schedules for Eco-Region 7E (MNRF, 2015) and the Natural Heritage Reference Manual (MNRF, 2010) guide the criteria for determining significance, as well as the City and Regional Official Plans (OPs).

Natural features of significance found within the Study Area/adjacent to the Property are discussed in **Section 5** and **6**.

3.1.2 Conservation Authority Act

The Conservation Authorities Act, 1990, provides regulatory, operational, jurisdictional, and legislative framework for Conservation Authorities; allowing them to regulate activities in areas under their jurisdiction through issuance of permits. Section 28 authorizes CVC to implement and enforce the Prohibited Activities, Exemptions and Permits Regulation (Ontario Regulation 41/24) which establishes regulated areas where development could interfere with hydrologic functions, and impact flooding or erosion. The Study Area is within CVC jurisdiction, but is not a regulated area (see **Figure 1**). From the Development Application Review Committee (DARC) City File No. DARC 24-39 W11, Trisha Hughes, senior planner from CVC, commented that "Based on available information, the property at 2555 Erin Centre Blvd in Mississauga is not located in a Credit Valley Conservation (CVC) Regulated Area. As such, a permit from CVC is not required for proposed development on this property. CVC staff defer review of the proposed applications to the City of Mississauga."

3.1.3 Endangered Species Act, 2007

The purpose of the Endangered Species Act, 2007 (ESA) is to identify Species at Risk (SAR), to provide protection to SAR and their habitats, and to promote the recovery of SAR through stewardship actions. Existing SAR and their habitats are protected based on applicable regulations according to Ontario Regulation 242/08. Any proposed activities with the potential to harm SAR and their habitats must be authorized by the Ministry of Environment, Conservation and Parks (MECP), some species and activities may be provided exemptions. In some cases, a Notice of Activity, Registration or a Permit may be required with the MECP.



The protection for SAR and their habitats within the ESA is only applicable to species listed as Endangered or Threatened on the Species at Risk Ontario (SARO) list. Special Concern species may be protected through policies that respect significant wildlife habitat as defined by the province, other relevant authorities, or Official Plan policies.

Section 5.6 of this report outlines the potential for SAR and their habitat to be present within the Study Area.

3.1.4 Migratory Birds Convention Act, 1994

The Migratory Birds Convention Act, 1994 (MBCA) protects most species of migratory birds, their nests, eggs, and young from harassment, harm or destruction anywhere they are found in Canada. The deposition of harmful substances to water or areas frequented by migratory birds is prohibited under the MBCA. To ensure compliance with the MBCA, a due diligence approach that identifies potential risks and considers site specific conditions is encouraged, following the Guidelines to Avoid Harm to Migratory Birds provided by Environment Canada (Government of Canada, 2023), which considers mid-March to late August as "high risk" periods for encountering nesting birds in Southern Ontario. Thus, it is encouraged to screen for active nests and avoid clearing vegetation during this period, especially in naturalized areas.

3.1.5 **Greenbelt Plan, 2017**

The Greenbelt Plan (2017) provides direction for how and where future growth should be accommodated, expanding on the PPS policy framework to protect a wide area of land. The Greenbelt contains vital natural resources, while providing areas for agriculture, recreation, and environmental protection.

The Greenbelt Plan outlines areas meant to be permanently protected for agricultural and ecological functions through the prohibition of urbanization. Linkages between agricultural and environmental protected lands are enhanced through Protected Countryside lands and surrounding water features. Settlement areas such as hamlets, towns and villages can be found throughout the Protected Countryside.

In general, the Greenbelt Plan requires there will be no negative impacts to a key natural heritage feature (KNHF) and key hydrologic feature (KHF), or their function, as well as no negative impact on biodiversity or connectivity of the Natural Heritage System caused by proposed development.

The Study Area is located within the "Settlement Areas Outside the Greenbelt" designation as shown in Schedule 4 of the Greenbelt Plan and is therefore not within the regulated boundaries. Thus, detailed delineation of settlement boundaries and land use within these areas is deferred to municipal Official Plans (see **Section 3.3**).



3.2 Regional Framework

3.2.1 Region of Peel Official Plan, 2022

The provincial government has decided to remove Peel Region's planning responsibilities/authority, thus, as stated on the Region of Peel website: "Bill 185, the Cutting Red Tape to Build More Homes Act, 2024, received Royal Assent on June 6, 2024. Included in this omnibus bill are Planning Act changes first introduced through Bill 23, the More Homes Built Faster Act, 2022, which remove planning policy and approval responsibilities from several upper-tier municipalities, including Peel Region, as of July 1, 2024. On this date, the Region of Peel Official Plan (RPOP) will become a plan of the local municipalities, and they will be required to implement and ensure applications conform to the RPOP. Where Peel Region was previously required to be the approval authority for certain Official Plan reviews and amendments under the Planning Act, the Province will now become the approval authority where required."

The Region of Peel Official Plan 2022 (ROP) was adopted by Regional Council in April of 2022, replacing the former 1996 plan. It contains a long-term policy framework to guide community, economic and environmental planning decisions while aiming to protect, maintain, and restore the Regional Greenlands System.

Based on the ROP (2022), the Property is designated as "Settlement Area Outside the Greenbelt" (Schedule B-5) with the adjacent woodlot shown as "Core Areas of the Greenlands System in Peel" (Schedule C-2).

Section 2.14.5 defines the Greenlands System as being made up of the following components:

- a) "Core Areas, which are designated and shown generally on Schedule C-2, which are protected, restored and enhanced in this Plan and in the local municipal official plans;
- b) Natural Areas and Corridors, which will be interpreted, protected, restored, and enhanced and shown, as appropriate, in the local municipal official plans;
- c) Potential Natural Areas and Corridors, which will be interpreted, protected, restored, and enhanced and shown, as appropriate, in the local municipal official plans. Potential Natural Areas and Corridors will be analyzed to determine their functional role in supporting and enhancing the ecological integrity of the Greenlands System;
- d) The Natural Heritage System overlay of the Growth Plan and the key natural heritage features and key hydrologic features, which will be protected in accordance with the Plan; Region of Peel Official Plan Chapter 2: The Natural Environment Page 73;



- e) The Natural Heritage System overlay of the Greenbelt Plan and the key natural heritage features and key hydrologic features, which will be protected in accordance with the Plan;
- f) Urban River Valleys of the Greenbelt Plan, which will be protected and, where appropriate, restored, in accordance with the policies of this Plan;
- g) The Natural Core Areas and Natural Linkage Areas land use designations of the Oak Ridges Moraine Conservation Plan and the key natural heritage features and key hydrologic features, which will be protected in accordance with the Plan; and
- h) The Escarpment Natural Area and Escarpment Protection Area land use designations of the Niagara Escarpment Plan and the key natural heritage features and key hydrologic features, which will be protected in accordance with the Plan."

Core Areas of the Greenlands System are defined in Section 2.14.12 as:

- a) "significant wetlands;
- b) significant coastal wetlands;
- c) woodlands meeting one or more of the criteria for Core Area woodland in Table 1;
- d) Environmentally Sensitive or Significant Areas;
- e) Provincial Life Science Areas of Natural and Scientific Interest;
- f) Escarpment Natural Areas of the Niagara Escarpment Plan; and
- g) valley and stream corridors meeting one or more of the criteria for Core Area valley and stream corridors in Table 2 and as shown on Schedule C-2. The limit of Core Area valley and stream corridors shall be determined jointly with the local municipalities in consultation with relevant agencies and in accordance with the definition in the Glossary of this Plan and the criteria in Table 2 to recognize the unique urban and rural character of the Region. Core valley and stream corridors include the main branches, major tributaries and other tributaries associated with the Credit River, the Etobicoke Creek, the Mimico Creek, the West Humber River and the Humber River and with the other identified watercourses draining directly to Lake Ontario, except for those portions within Delineated Built-up Areas in the urban settlements of Bolton, Mayfield West, and Caledon East and the Rural Settlement Areas in the Rural System as designated in a local municipal official plan. These valley and stream corridors are continuous linkages connecting to other Greenlands System Core Areas."

As per Section 2.14.15, development and site alterations are prohibited within the Core Areas of the Greenlands System in Peel, except for:

a) "forest, fish and wildlife management;



- b) conservation and flood or erosion control projects, but only if they have been demonstrated to be necessary in the public interest and after all reasonable alternatives have been considered;
- c) essential infrastructure exempted, pre-approved or authorized under an environmental assessment process;
- d) passive recreation;
- e) minor development and minor site alteration;
- *f) existing uses, buildings or structures;*
- g) expansions or alterations to existing buildings or structures;
- h) accessory uses, buildings or structures;
- i) a new single residential dwelling on an existing lot of record, provided that the dwelling would have been permitted by the applicable planning legislation or zoning by-law on May 23, 2014. A new dwelling built after May 23, 2014 in accordance with this policy shall be deemed to be an existing building or structure for the purposes of the exceptions permitted in clauses g) and h) above."

Exceptions may be permitted provided that:

- a) "the exceptions are permitted in accordance with the policies in an approved local municipal official plan or the Niagara Escarpment Plan, where applicable;
- b) any development and site alteration will not be permitted unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions and that:
 - there is no reasonable alternative location outside of the Core Area and the use, development or site alteration is directed away from the Core Area to the greatest extent possible;
 - ii. if avoidance of the Core Area is not possible, the impact to the Core Area feature is minimized;
 - iii. any impact to the Core Area or its functions is mitigated through restoration or enhancement to the greatest extent possible; and
 - iv. where ecosystem compensation is determined to be appropriate and feasible, including for essential infrastructure, it may be considered in accordance with local municipal or conservation authority ecosystem compensation guidelines; and
- c) within significant wetlands and significant coastal wetlands the above exceptions may only be considered in accordance with federal and provincial legislation, regulations and policies (e.g. Conservation Authorities Act); and
- d) when developing policies to allow the exceptions, the local municipalities may consider appropriate implementation tools including existing approval requirements and tools of other agencies."



3.3 Municipal Framework

3.3.1 The City of Mississauga Official Plan, 2024

The latest version of the Mississauga Official Consolidated Plan was approved by City Council March 2024 and was updated to include Ontario Land Tribunal (OLT) decisions. The City's OP provides direction towards the city's growth, land use and urban design, and manages the changes that could affect environmental, social, cultural, and economic factors.

The Property is designated as "Mixed Use", with the adjacent woodlot determined as "Greenlands" as shown in Schedule 10 (Land Use Designations) and classified as "Significant Natural Areas and Natural Green Spaces" on Schedule 3 (Natural System).

As defined in Section 6.3.7, "Buffers which are vegetated protection areas that provide a physical separation of development from the limits of natural heritage features and Natural Hazard Lands, will be provided to perform the following:

- maintenance of slope stability and reduction of erosion on valley slopes;
- attenuation of stormwater runoff;
- reduction of human intrusion into Significant Natural Areas and allowance for predation habits of pets, such as cats and dogs;
- protection of tree root zones to ensure survival of vegetation;
- provision of a safety zone for tree fall next to woodlands;
- enhancement of woodland interior and edge areas through native species plantings;
- enhanced wildlife habitat and corridors for wildlife movement; and
- opportunities for passive recreational activities, in appropriate locations."

Under section 6.3.8, "Buffers shall be determined on a site-specific basis as part of an Environmental Impact Study or other similar study, to the satisfaction of the City and appropriate conservation authority."

As per Section 6.3.12, Significant Natural Areas must meet one or more of the following criteria:

- a) "provincially or regional significant life science areas of natural and scientific interest (ANSI);
- b) environmentally sensitive or significant areas;
- c) habitat of threatened species or endangered species;
- d) fish habitat;
- e) significant wildlife habitat;
- f) significant woodlands are those that meet one or more of the following criteria:



- woodlands, excluding cultural savannahs, greater than or equal to four hectares;
- woodlands, excluding cultural woodlands and cultural savannahs, greater than or equal to two hectares and less than four hectares;
- any woodland greater than 0.5 hectares that:
 - supports old growth trees (greater than or equal to 100 years old);
 - supports a significant linkage function as determined through an Environmental Impact Study approved by the City in consultation with the appropriate conservation authority;
 - is located within 100 metres of another Significant Natural Area supporting a significant ecological relationship between the two features; is located within 30 metres of a watercourse or significant wetland; or supports significant species or communities;
- g) significant wetlands are one of the following:
 - Provincially significant coastal wetlands;
 - Provincially significant wetlands;
 - Coastal wetlands;
 - other wetlands greater than 0.5 hectares; and
- h) significant valleylands are associated with the main branches, major tributaries and other tributaries and watercourse corridors draining directly to Lake Ontario including the Credit River, Etobicoke Creek, Mimico Creek and Sixteen Mile Creek."

The Natural Heritage System is to be protected, enhanced, restored and expanded through the following measures outlined in Section 6.3.24:

- a) "ensuring that development in or adjacent to the Natural Heritage System protects and maintains natural heritage features and their ecological functions through such means as tree preservation, appropriate location of building envelopes, grading, landscaping, and parking and amenity area locations;
- b) placing those areas identified for protection, enhancement, restoration and expansion in public ownership, where feasible;
- c) using native plant materials and non-invasive species, and reducing and/or eliminating existing invasive, non-native plant species to improve ecological value and the sustainability of indigenous vegetation, where appropriate;
- d) retaining areas in a natural condition and/or allowing them to regenerate to assume a natural state;
- e) the promotion of stewardship within privately and publicly owned lands within the Natural Heritage System;
- f) controlling activities that may be incompatible with the retention of the Natural Heritage System and associated ecological functions; and
- g) regulation of encroachment into the Natural Heritage System and other public open spaces."

As stated in Section 6.3.27, "Development and site alteration as permitted in accordance with the Greenlands designation within or adjacent to a Significant Natural Area will not be permitted unless all reasonable alternatives have been considered and any negative impacts minimized. Any negative impact that cannot be avoided will be mitigated through restoration and enhancement to the greatest extent possible. This will be demonstrated through a study in accordance with the requirements of the Environmental Assessment Act. When not subject to the Environmental Assessment Act, an Environmental Impact Study will be required."

Furthermore, in accordance with Section 6.3.28, "Notwithstanding the policies of this Plan, development and site alteration will not be permitted in the following areas:

- a) provincially significant wetlands or Provincially significant coastal wetlands which are or meet the criteria of a Significant Natural Area;
- b) habitat of endangered species and threatened species, except in accordance with Provincial and Federal requirements;
- c) fish habitat, except in accordance with Provincial and Federal requirements; and
- d) Core Areas of the Greenlands System as defined in the Region of Peel Official Plan, except in accordance with Regional requirements."

Under Section 6.3.29 of the City's OP, "Development and site alteration on lands adjacent to a Provincially significant wetland, Provincially significant coastal wetland and habitat of endangered species and threatened species or other Significant Natural Area will require an Environmental Impact Study, demonstrating no negative impact to the natural heritage features or on their ecological function, to the satisfaction of the City and appropriate conservation authority."



4.0 Methodology

To complete the natural heritage characterization of ecological features and functions associated with the Property and adjacent lands, SCS completed a review of relevant background information and performed seasonal field investigations in 2024 (**Table 1**). Field work consisted of determining Ecological Land Classification (ELC) communities, breeding bird surveys, and a summer botanical inventory, accompanied by incidental wildlife observations. Additionally, staking activities with the appropriate agencies were carried out to delineate natural features within and adjacent to the Property (**Appendix B**). The data collected allows for more informed decisions regarding future development through assessment of significant natural features. A detailed summary is further discussed below.

SCS generally followed the City of Mississauga Environmental Impact Studies Terms of Reference 2002 where appropriate, given the habitat present within the Study Area and the proposed redevelopment of the Property.

Table 1: Field Work and Observation Dates

Purpose of Visit	Date	Weather Conditions			
		Temperature (°C)	Wind	Cloud Cover	
Woodlot and Dripline Pre-Staking	June 27, 2024	21°C	1	Mainly Sunny	
Ecological Land Classification & Summer Botanical Inventory	July 9, 2024	22 °C	1	Cloudy	
Breeding Bird Surveys	July 9, 2024	22 °C	1	Cloudy	
Woodlot and Dripline Staking confirmation with agencies	September 26, 2024	21°C	1	Mainly Sunny	

4.1 Information Sources

Background documents and supporting technical documents applicable to the existing environmental conditions of the Study Area were reviewed to guide the direction of work and ensure compliance with related regulations and polices required to complete this EIS. Official Plans, CVC regulations and policies, as well as aerial photographs and maps were consulted prior to the commencement of field investigations. Additionally, the information



sources listed in **Table 2** provided context and identified natural heritage features relating to the Study Area.

Table 2: Supporting Background Documents

Source	Record Reviewed
Provincial Planning Statement (PPS), 2024	- Policies within Section 4.1
Conservation Authority Act, 1990	 Prohibited Activities, Exemptions and Permits Regulation (Ontario Regulation 41/24)
Endangered Species Act, 2007	- MECP Species at Risk Ontario (SARO), 2024 (Ontario Regulation 230/08)
Migratory Birds Convention Act, 1994	 Government of Canada, Guidelines to avoid harm to migratory birds, 2023 Government of Canada, Overview of nesting periods, 2023
Credit Valley Conservation	 Ecosystem Offsetting Guidelines, 2020 Credit River Watershed and Region of Peel NAI Report – Volume 1, 2011
Region of Peel	 Official Plan, 2022 TRCA: Peel Region Urban Forest Strategy, 2011
City of Mississauga	 Official Plan, 2024 Erosion and Sediment Control By-law 512-91, 1991 Green Development Standards, Going Green in Mississauga, 2012 Private Tree Protection By-law 0021, 2022 Public Tree Protection By-law 0020, 2022
Ministry of Natural Resources and Forestry	- Make a Map: Natural Heritage Areas, 2023



	 Natural Heritage Information Center (NHIC) Database (Square 17PJ0324 and 17PJ0424) Natural Heritage Reference Manual, 2010 Significant Wildlife Habitat Criteria Schedules For Ecoregion 7E, 2015 Significant Wildlife Habitat Technical Guide, 2023
Ministry of Environment, Conservation and Parks	 SARO Henslow's sparrow, 2021 SARO Wood thrush, 2023 SARO Eastern Wood-pewee, 2021 SARO Eastern Small-footed Myotis, 2023 SARO Little Brown Myotis, 2021 SARO Northern Myotis, 2021 SARO Tri-coloured Bat, 2021 Little Brown Myotis (Myotis lucifugus), Northern Myotis (Myotis septentrionalis), Tri-colored Bat (Perimyotis subflavus) in Ontario Ontario Recovery Strategy Series, 2019
Ministry of Mines	- GeologyOntario Spatial Search for bedrock geology
Wildlife Atlases	 Atlas of the Breeding Birds of Ontario (Birds Canada, Square 17TPJ02), 2023 Ontario Breeding Bird Atlas: Guide for Participants, 2001 Atlas of the Mammals of Ontario, 1994 Ontario Reptile and Amphibian Atlas (Ontario Nature, Square 17PJ02), 2023 Ontario Butterfly Atlas (Toronto Entomologist Association, Square 17PJ02), 2023

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Best Management Practices	 Fatal Light Awareness Program (FLAP) Canada, 2022 Government of Canada. Overview of nesting periods, 2023
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4.2 Terrestrial Environment

4.2.1 Ecological Land Classification

Ecological Land Classification (ELC) using the 1998, Lee et al., protocol was conducted to assess and map vegetation communities within the Study Area. Vegetation community boundaries were determined through the review of aerial photography and assessments were confirmed on site with revisions being made where necessary. The dominant vegetation species within the communities were determined based on visual estimates of species abundance and biomass. An examination of soil conditions of up to 120 cm below ground surface was conducted using a soil auger to create a soil profile. Soil texture and moisture characteristics were described, which correlate with vegetation assemblage and plant distribution. The second approximation classification was used to identify all vegetation communities. The Natural Heritage Information Centre (NHIC) database was consulted to determine if any occurrence or rare species/communities were recorded within the vicinity of the Property. The ELC field survey was completed on July 9, 2024 within the Study Area.

4.2.2 Botanical Inventory

An inventory of vascular plants observed within the Study Area was also conducted on July 9, 2024 while conducting the ELC survey. Each species was assigned a conservation designation based on the NHIC and the Species at Risk in Ontario (SARO) (MECP, 2024) and invasive plants were identified. The Ontario Plant List (Newmaster et al., 1998) was the basis for species nomenclature.

4.2.3 Tree Inventory

Tree Inventory and Tagging was completed by Strybos Barren King (SBK) and can be found in **Appendix C**.

4.2.4 Woodlands

Background resources identified the woodland area, Erin Woods Park, adjacent to the Property. SCS completed field investigations in 2024 to confirm ELC classifications within the woodlot and on the vegetated city owned lands to the east. The dripline of the woodlot was staked by R-PE Surveying LTD and SCS on June 27, and confirmed by staff from the City on September 26, 2024. The boundaries of the woodlot that did not



border the Property were estimated using air photo interpretation. An evaluation of the woodlot was completed to determine if significance criteria as stated in the City OP's (Section 3.3) was met, supplemented with the results of the breeding bird survey and ELC.

Results regarding the evaluation of woodland significance of features in proximity to the Property are elaborated upon in **Section 5.4.4**.

4.2.5 Terrestrial Wildlife Surveys

Based on the presence of woodland features in proximity to the Property, breeding bird surveys were conducted accompanied by incidental wildlife observations to determine baseline conditions and assess the presence of SWH and/or SAR habitat.

4.2.5.1 Breeding Bird Surveys

As a result of the timing of when SCS was retained, one breeding bird survey was conducted for the Property, within the Study Area. The survey was completed within the acceptable timing window on the morning of July 9th, 2024 with a start time of 6:45am, following the methods outlined in the Instructions for General Atlassing (Ontario Breeding Bird Atlas, 2020). The temperature was 20° C, with no rain and a wind speed of 1 on the Beaufort wind scale. The breeding bird community was surveyed at 4 point count locations within the Study Area, breeding evidence and all birds heard or seen while walking between points was recorded as well. Survey point locations are shown on **Figure 2** and results are summarized in **Section 5.4.5.1.** Subsequent breeding bird surveys can be conducted in 2025, if required.

4.2.5.2 Incidental Wildlife

Incidental observations of wildlife, including mammals, reptiles, amphibians, and migratory birds were noted during field investigations. Sightings include visual observations, tracks, sounds heard, and scat. Incidental wildlife observations that occurred within the Study Area are discussed in **Section 5.4.5.2**.

4.3 Endangered, Threatened and Rare Species

A review of NHIC database was used to identify potential occurrences of federal and/or provincial Species at Risk and/or provincially rare species in proximity to the Property. The results of the NHIC review were considered when conducting the field investigations to determine if the habitats of rare, endangered, or threatened species were present or potentially present within the Study Area. Based on a review of the NHIC and secondary source information, 5 SAR listed as Threatened or Endangered under the Ontario Endangered Species Act, 2007 (ESA, 2007) potentially occur in proximity to the Property based on historical occurrence records (**Table 3**).



Table 3: Threatened or Endangered Species with the Potential to Occur in Proximity to the Property

Scientific	Common Name	SARA ¹	ESA ²	S-Rank ³	Information
Name					Source ⁴
Birds					
Centronyx	Henslow's Sparrow	END	END	SHB	NHIC
henslowii					
Bats					
Myotis	Little Brown Myotis	END	END	S3	AMO
lucifugus					
Myotis	Northern Myotis	END	END	S3	AMO
septentrionalis					
Pipistrellus	Tri-colored Bat	END	END	S3?	AMO
subflavus					
Myotis leibii	Eastern Small-	-	END	S2S3	AMO
	footed Myotis				

¹Federal Species at Risk Act (THR = Threatened, SC = Special Concern); ²Ontario Endangered Species Act (THR = Threatened, SC = Special Concern); ³Ontario S-Rank (S4 = Apparently Secure, S3 = Vulnerable, S2 = Imperiled, B = Breeding Population, N = Non-Breeding Population); ⁴Information Sources: NHIC = Natural Heritage Information Centre, AMO = Atlas of the Mammals of Ontario (Dobbyn, 1994).

There were four Species of Conservation Concern (SCC) identified through the NHIC database and secondary source review to occur potentially within the Study Area (**Table 4**). Species of Conservation Concern are defined as species listed as Special Concern, Threatened or Endangered on the federal SARA, 2002, but not Threatened or Endangered under ESA, 2007, and/or species that are provincially rare/tracked (i.e., have a Sub-national (provincial) Rank of S1 – Critically imperiled, S2 – Imperiled or S3 – Vulnerable) or are designated as Special Concern under the ESA, 2007.

Table 4: Species of Conservation Concern with the Potential to Occur in Proximity to the Property

Scientific	Common Name	SARA ¹	ESA ²	S-Rank ³	Information
Name					Source ⁴
Birds					
Contopus	Eastern Wood-pewee	SC	SC	S4B	NHIC
virens					
Hylocichla	Wood Thrush	THR	SC	S4B	NHIC
mustelina					
Reptiles					
Chelydra	Snapping Turtle	SC	SC	S4	ORAA
serpentina					
Insects					

• • •

Danaus	Monarch			C2C4	OBA
plexippus		SC	SC	S3S4	

¹Federal Species at Risk Act (THR = Threatened, SC = Special Concern); ²Ontario Endangered Species Act (THR = Threatened, SC = Special Concern); ³Ontario S-Rank (S4 = Apparently Secure, S3 = Vulnerable, S2 = Imperiled, B = Breeding Population, N = Non-Breeding Population); ⁴Information Sources: NHIC = Natural Heritage Information Centre, ORAA = Ontario Reptile and Amphibian Atlas, OBA = Ontario Butterfly Atlas.

Additional species identified by secondary source information have secure (S5) or apparently secure (S4) designated populations in Ontario, thus they are not considered SAR or SCC. The potential for these species and their habitat to occur within the Study Area is discussed in **Section 5.5** and **5.6**.

4.4 Identification of Significant Wildlife Habitat

A general habitat assessment for significant wildlife habitat features was conducted concurrently with field assessments following the criteria for identification based on "Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E" (MNRF, 2015), the Significant Wildlife Habitat Technical Guide (SWHTG; MNR, 2023), and the Natural Heritage Reference Manual (NHRM; MNRF, 2010). These criteria along with field investigations were used to screen wildlife habitat within and immediately adjacent to the Property. Significant Wildlife Habitat (SWH) is protected under the PPS (2024), the five main categories include: seasonal concentration of animals, rare vegetation communities, specialized habitat for wildlife, habitat for species of conservation concern (not including threatened or endangered species), and animal movement corridors. Areas identified as SWH are discussed in **Section 5.5**.



5.0 Results

The following sections outline existing environmental conditions and their significance based on field investigations and background document review conducted in accordance with methods described in **Section 4**.

5.1 General Site Description

The Property is 1.008 ha in size and is currently a low-density low rise commercial strip mall with surface parking, bordered by landscape trees, an adjacent deciduous forest, and city owned lands. The surrounding land uses within and adjacent to the Property are described as follows:

North: Erin Woods Park;East: residential buildings;

South: Erin Centre Boulevard; and

West: Erin Mills Parkway.

5.2 Watershed Summary

The Study Area is located within the Credit River Watershed, specifically within the Mullet Creek subwatershed. The Credit River is approximately 90km in length, it flows through nine municipalities with headwaters originating in Orangeville, Erin and Mono. The Credit River drains into Lake Ontario in Mississauga (Port Credit). Land cover in the Credit River Watershed is comprised of 35% natural area (23% woodland, 7% wetland), 31% urban, and 34% agriculture and open space. There are no naturally occurring watercourses located within or directly adjacent to the Property.

5.3 Groundwater

Grounded Engineering Inc. provided hydrogeological engineering design advice for the proposed development at the Property in the form of a Hydrogeological Review Report (Grounded, 2024). A total of nine (9) boreholes were installed on the Property and eight (8) of them (BH101, BH102, BH103, BH104, BH105, BH106, BH107, BH108) were instrumented with monitoring wells. Of the nine boreholes, one (1) shallow borehole (BH109) was installed for environmental purposes. As reported by Grounded, groundwater measurements were collected in July and August of 2024.

Locally, groundwater is anticipated to flow Southeast towards a tributary/branch of the Credit River. Groundwater levels fluctuate with time depending on the amount of precipitation and surface runoff and may be influenced by known or unknown dewatering activities at nearby sites.



5.4 Terrestrial Environment

5.4.1 Landforms, Soils and Surficial Geology

In regards to the physiography of Southern Ontario, the Study Area falls within the South Slope region, south of the Peel Plain. This region extends from the base of the Niagara Escarpment to the Iroquois Plain and is characterized by fine grained ground moraines. Soils have low permeability and limited groundwater infiltration, tilled areas create fertile soils and support rich upland forests (Credit River Watershed and Region of Peel NAI Report – Volume 1, 2011). The Study Area is located on Upper Ordovician bedrock that consists of limestone, siltstone, dolostone, and shale (Ministry of Mines, 2024).

5.4.2 Ecological Land Classification

Through conducting the ELC survey, a total of two main natural vegetation communities were identified, and one cultural community observed within the Study Area. The survey completed was a representative ELC within 150m of the existing parking lot, as the associated woodlot extends northwest of the Property with similar composition. Communities are explained in **Table 5** and displayed on **Figure 2**, the dashed outline of the woodlot is the boundary based on aerial images compared to the solid area where ELC was conducted. Representative photographs of the ELC communities are presented in **Appendix D**. Based on respective provincial conservation (sub-national) rankings (S-Rank), the natural ELC communities and associated vegetation observed during field studies are considered common in Ontario. Additionally, numerous vegetation species observed are non-native or considered invasive in Ontario.

Table 5: Ecological Land Classification Communities

ELC Code	Classification	Vegetation or Description	Comments (Photographs Included in Appendix D)
FOD5-3	Dry – Fresh Sugar Maple – Oak Deciduous Forest	This forest community is dominated by Sugar Maple (Acer saccharum), Red Oak (Quercus rubra), Shagbark Hickory (Carya ovata), Ironwood (Ostrya virginiana), Common Buckthorn (Rhamnus cathartica), Green Ash (Fraxinus pennsylvanica), Spotted Jewelweed	FOD5-3 can be seen in Photo 1 and Photo 2.

		(Impatiens capensis), Broad-leaf Enchanter's Nightshade (Circaea canadensis), Virgina Creeper (Parthenocissus quinquefolia), Summer Grape (Vitis aestivalis), Garlic Mustard (Alliaria petiolate), False Solomon's Seal (Maianthemum racemosum) and Herb Robert (Geranium robertianum).	
TAGM5	Fencerow	Mixed Fencerows within the Property were dominated by Black Pine (Pinus nigra), English Oak (Quercus robur), Blue Spruce (Picea pungens), Norway Maple (Acer platanoides), and Common Buckthorn.	N/A
ТНМ	Mixed Thicket	Mixed thicket adjacent to a fencerow and FOD5-3 was dominated by Manitoba Maple, Blue Spruce, Black Pine, Common Buckthorn, Tatarian Honeysuckle (Lonicera tatarica), Green Ash, Summer Grape, Wild Red Raspberry (Rubus idaeus), Garden Bird'sfoot Trefoil (Lotus corniculatus), Daisy Fleabane (Erigeron hyssopifolius), Fuller's Teasel (Dipsacus fullonum), Goldenrod and Aster species.	THM can be seen in Photo 3, Photo 4 and Photo 5.



5.4.3 Botanical Inventory

In total, 55 flora species were identified within the Study Area during the terrestrial field survey. A list of plant species documented, and their federal and provincial status is shown in **Table 6** (**Appendix E**). Of the 55 species identified through field observations, 19 are either non-native or exotic species. Of the remaining native species, thirty-two (32) are ranked S4 or S5 in Ontario indicating they are common or very common species in Ontario. The last 4 species could not be ranked due to lack of information or lack of identification to a species level.

To help further characterize the vegetation found within the Study Area, a Coefficient of Conservatism (CC) value is assigned to native vegetation (non-native vegetation are unranked) based on the Floristic Quality Assessment System for Southern Ontario (Oldham et al., 1995) developed by the NHIC. Each native species is assigned a rank of 0 to 10 ("coefficient of conservatism") based on its degree of fidelity. Plants found in a wide variety of plant communities, including disturbed sites, were assigned ranks of 0 to 3. Taxa that typically are associated with a specific plant community, but tolerate moderate disturbance, were assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those taxa associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those plants with high degree of fidelity to a narrow range of ecological parameters and found in near pristine environments were assigned a value of 9 to 10. The average CC value for the Study Area based on the vascular plant list is 4.59, which indicates the species present can tolerate moderate disturbance, as compared to a more pristine natural vegetation community which generally would have an average CC value of 7 or higher.

5.4.4 Woodlands

The dripline of the woodlot was staked by R-PE Surveying LTD and SCS on June 27, and confirmed by staff from the City on September 26, 2024. The boundaries of the woodlot that did not border the Property were estimated using air photo interpretation. The northern woodlot meets required standards to be considered significant as it meets one or more of the criteria outlined in Section 6.3.12 of the City's OP, specifically it is greater than 4 ha in size.

5.4.5 Terrestrial Wildlife Surveys

5.4.5.1 Breeding Birds

Due to the timing of SCS being retained for this EIS, one breeding bird survey could be completed within the birding bird survey window. To supplement collected field data, a background review of the Ontario Breeding Bird Atlas (OBBA) and Christmas Bird Count for the Region was completed. One species of interest, Eastern Wood-pewee, was documented within the last five years in proximity to the Study Area. This data coincides

with our 2024 field observations. Subsequent breeding birds survey(s) can be conducted in 2025, if required.

A total of 15 bird species were observed during the breeding bird survey (**Table 7 – See Appendix F**). Of the 15 species observed 14 are considered very common (S5) or secure (S4) in Ontario. One species of Special Concern, Eastern Wood Pewee, was observed singing within the woodlot adjacent to the Property.

A total of 12 species of breeding birds were recorded within the Study Area, with an additional 3 species listed as fly overs. The woodlot is bordered by Erin Mills Parkway to the west, a multiuse plaza and parking lot to the south, and residential area to the east, which influences avian diversity. Observations were noted throughout the Study Area with a higher concentration towards the center of the habitat and east side close to residential units.

The majority of breeding records were common species regularly found in urbanized areas, the most frequently observed across multiple survey stations were American Robin (*Turdus migratorius*), Black Capped Chickadee (*Poecile atricapillus*), and Blue Jay (*Cyanocitta cristata*).

The presence of SAR, SCC and SWH within or adjacent to the Property as indicated by the results of breeding bird surveys are outlined in **Section 5.5** and **5.6**.

5.4.5.2 Incidental Wildlife

A total of 2 species were observed within/ adjacent to the Property (**Table 8**), specifically within the Dry – Fresh Sugar Maple – Oak Deciduous Forest and in Fencerows bordering the existing parking lot. Both species are common in Ontario and have an S-Rank of S5. The Study Area likely provides habitat for other species of urban wildlife such as Raccoons (*Procyon lotor*), Eastern Cottontail (*Sylvilagus floridanus*) and Eastern Chipmunks (*Tamias striatus*).

Table 8: Incidental Wildlife Observations.

Scientific Name	Common Name	SARA ¹	ESA ²	S-Rank ³
Sciurus carolinensis	Eastern Gray Squirrel	-	-	S5
Tamiasciurus hudsonicus	Red Squirrel	-	-	S5

¹Federal Species at Risk Act (THR = Threatened, SC = Special Concern); ²Ontario Endangered Species Act (THR = Threatened, SC = Special Concern); ³Ontario S-Rank (S4 = Apparently Secure, S3 = Vulnerable, S2 = Imperiled, B = Breeding Population, N = Non-Breeding Population).

5.5 Significant Wildlife Habitat

The results of terrestrial wildlife surveys and the ELC were used to assess the presence of Candidate and Confirmed SWH within and adjacent to the Study Area, in accordance



with the Significant Wildlife Habitat Technical Guide (MNR, 2000) and Ecoregion 7E Criterion Schedule (MNRF, 2015). The following Candidate and Confirmed SWH identified through background review and field investigations are elaborated on below (**Figure 3**):

- Seasonal Concentration of Animals:
 - Bat Maternity Colonies
- ◆ Habitat for Special Concern and Rare Wildlife Species:
 - Eastern Wood-pewee
 - Wood Thrush
 - Snapping Turtle
 - Monarch

5.5.1 Seasonal Concentration of Animals

5.5.1.1 Bat Maternity Colonies

Wildlife snag surveys were not completed within the woodlot of the Study Area or the Property and no bats were observed during field investigations, although the community is considered Candidate SWH for Bat Maternity Colonies due to the presence and quality of preferred tree species. The fencerow along the east side of the Property did not contain quality habitat (snags/ cavities) conducive to bat breeding and were dominated by landscape trees and shrubs, therefore is not included as SWH for Bat Maternity Colonies.

5.5.2 Habitat for Special Concern and Rare Wildlife Species

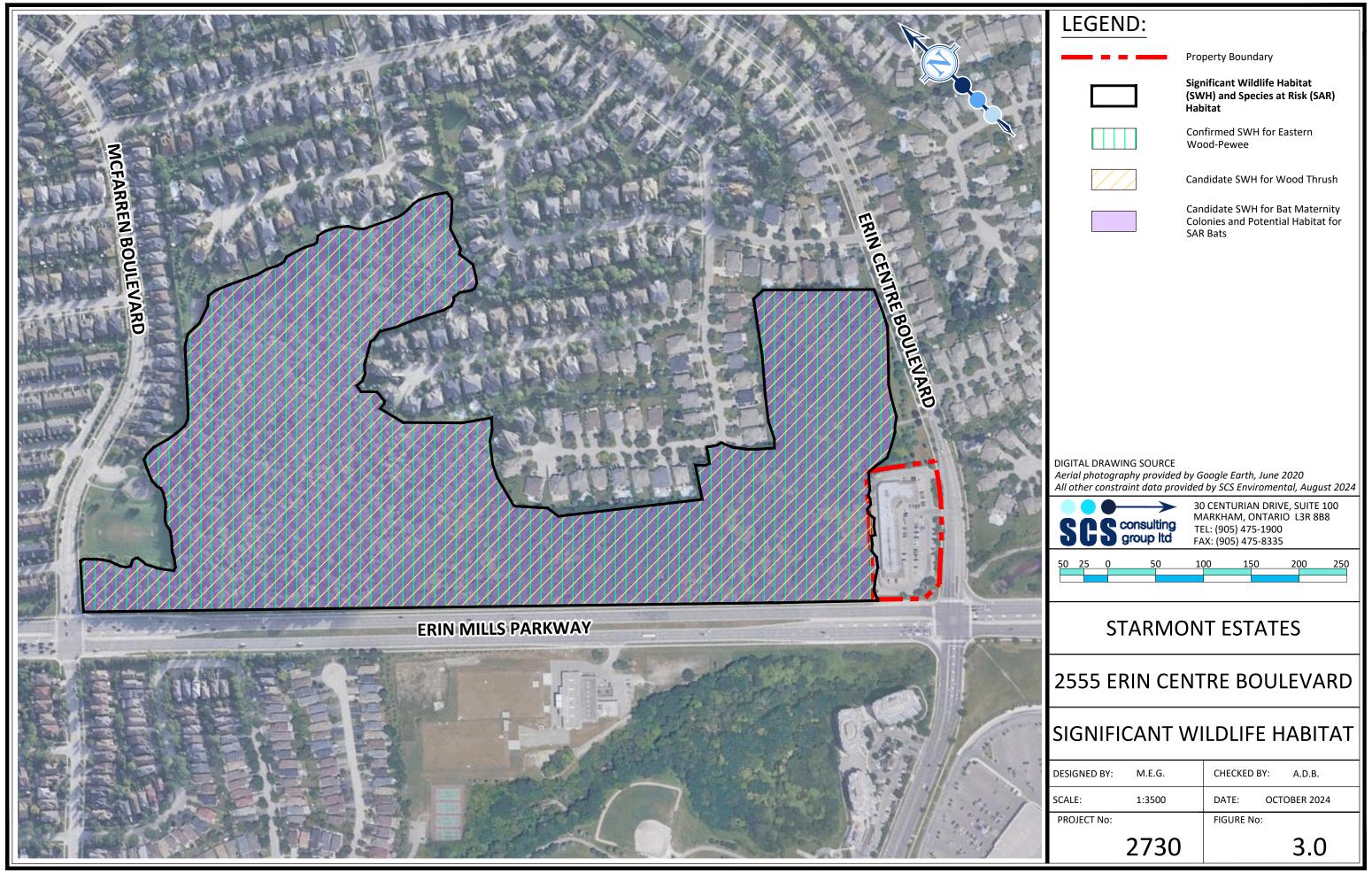
5.5.2.1 Eastern Wood-Pewee

Eastern Wood-Pewee (*Contopus virens*) was identified as a SCC with the potential to occur within the woodlot adjacent to the Property through background review of the NHIC. The preferred habitat of this species is the edges of intermediate to mature aged deciduous and mixed forests, occupying the mid-canopy layer of forest clearings with little understory (MECP, 2021). Eastern Wood-Pewee was observed near the BBS Station 3 (**Figure 2**), located in the Sugar Maple – Oak Deciduous Forest (FOD5-3). Therefore, Confirmed SWH for Eastern Wood-Pewee exists within the woodlot as breeding evidence (a male singing) was documented during the 2024 bird surveys.

5.5.2.2 Wood Thrush

Wood Thrush (*Hylocichla mustelina*) was identified as a SCC with the potential to occur within the woodlot adjacent to the Property through background review of the NHIC. The preferred habitat of this species is moist, mature deciduous or mixed forests with tall trees used for singing perches and Sugar Maples or American Beech used for nesting





(MECP, 2023). Although breeding evidence was not observed during the 2024 breeding bird surveys, Candidate SWH for Wood Thrush exists within the Sugar Maple – Oak Deciduous Forest (FOD5-3) adjacent to the Property.

5.5.2.3 Snapping Turtle

Snapping turtle (*Chelydra serpentina*) was identified as a SCC with the potential to occur in proximity to the Property through background review of the Ontario Reptile and Amphibian Atlas (ORAA). Since there are no wetlands, permanent water bodies, or suitable nesting habitat for Snapping turtles on the Study Area, SWH for Snapping Turtles is not supported.

5.5.2.4 Monarch

Monarch (*Danaus Plexippus*) butterfly was identified as a SCC with the potential to occur in proximity to the Property through background review of the Ontario Butterfly Atlas (OBA). Since there are no field vegetation communities and the Study Area is not within 5km of either Lake Erie or Lake Ontario, SWH for Monarchs is not supported.

5.6 Species At Risk

5.6.1 Henslow's Sparrow

Henslow's Sparrow (*Ammodramus henslowii*) was identified as a SAR with the potential to occur within the woodlot adjacent to the Property through background review of the NHIC. This species is a ground nester that prefers tall grasslands, wet meadows, and abandoned farm fields (MECP, 2021). As suitable habitat is not present within or adjacent to the Property, there is no candidate or confirmed SWH for Henslow's Sparrow based on field investigations.

5.6.2 SAR Bats

Mature oaks, maples, and the loose bark of Shagbark Hickory provide suitable potential SAR roosting habitat for Tri-coloured bats (*Pipistrellus subflavus*), Little brown Myotis (*Myotis lucifugus*), and Northern Myotis (*Myotis septentrionalis*). Thus, Candidate SWH for the aforementioned SAR bats is supported in the Study Area. Since rock outcrops, caves and abandoned mines were not present within the woodlot feature, SAR habitat for Eastern Small-footed Myotis (*Myotis leibii*) does not exist within the Study Area.



6.0 Ecological Function

Natural features within and adjacent to the Property were analyzed, through background review and field investigations, to determine their ecological functions. The Study Area is located within the Mary Fix Creek - Credit River watershed and on the South Slope physiographic region. The land use of surrounding areas include transportation, residential, commercial, mixed use, and greenlands. There are sections of lawn and landscape tree species on Property lands but the adjacent woodlot provides the bulk of ecological and hydrological functions. The woodlot facilitates nutrient and hydrological cycling, improves infiltration and surface runoff though pervious vegetation cover, improves local soil, water, and air quality, and prevents erosion. As described in background research and the breeding bird survey, a variety of avian species use the natural woodlot feature for habitat and breeding purposes. Additionally, urban terrestrial wildlife are supported by the forested lands through provided cover, refuge, foraging opportunities, and nesting habitat. Although, due to the busy roads bordering the Study Area, connectivity is adversely impacted and reduces the ability of urban wildlife to travel between the Study Area and nearby natural features. Based on size and ecological function criteria, the woodland is considered a significant natural feature by the municipality and NHRM guidelines (MNRF, 2010).

6.1 Hydrological Function

Pervious cover within the adjacent woodlot facilitates hydrological and nutrient cycling in addition to limiting erosion and runoff through soil stabilization and infiltration of surface flows. There are limited to no permanent or intermittent hydrological features adjacent to the Property and thus there is limited ecological hydrological function.

6.2 Terrestrial Habitat Function

Due to the presence of avian SCC and the potential for SAR species (bat) habitat conditions, the adjacent woodlot is SWH for Special Concern and Rare Wildlife Species including Eastern Wood-pewee (SCC) and Wood Thrush (SCC and federal SAR), and potential SWH for SAR species (bats). This forested area is considered candidate habitat for Bat Maternity Colonies and candidate roosting habitat for SAR Bats. It also provides refuge, food, and nesting habitat for urban terrestrial wildlife. There are no wetland features on the Property or within the representative ELC area of the adjacent woodlot.

6.3 Connectivity and Linkage Function

Connectivity between features of the natural heritage system provide areas for organisms to move between habitats. The woodlot adjacent to the Property is in proximity to surrounding parks, creeks, and meadows. Terrestrial linkages are fragmented due to multiple road crossings.

7.0 Description of the Proposed Development

The proposed development will involve the construction of three multistory high-rise towers erected within in the Property with associated surface and underground parking, an outdoor amenity area, and landscaping area which includes buffer area. The site layout and development limits are shown on the **Figure 4**. The proposed land use changes are based on current information provided by the consulting team. This plan was prepared by Arcadis Architects in October of 2024. The development limits are based on natural heritage features, stormwater management, and hydrogeological assessment. Identified development and environmental constraints related to natural heritage features were considered. Enhancement areas are identified and expanded upon in **Section 9**, the Natural Heritage System is proposed to be retained for the proposed development with regards to the adjacent woodlot. Prescribed buffers are intended to protect natural heritage features to the north of the Property.

The city owned lands to the east of the Property are proposed to be enhanced as part of the natural heritage enhancement/compensation plan.

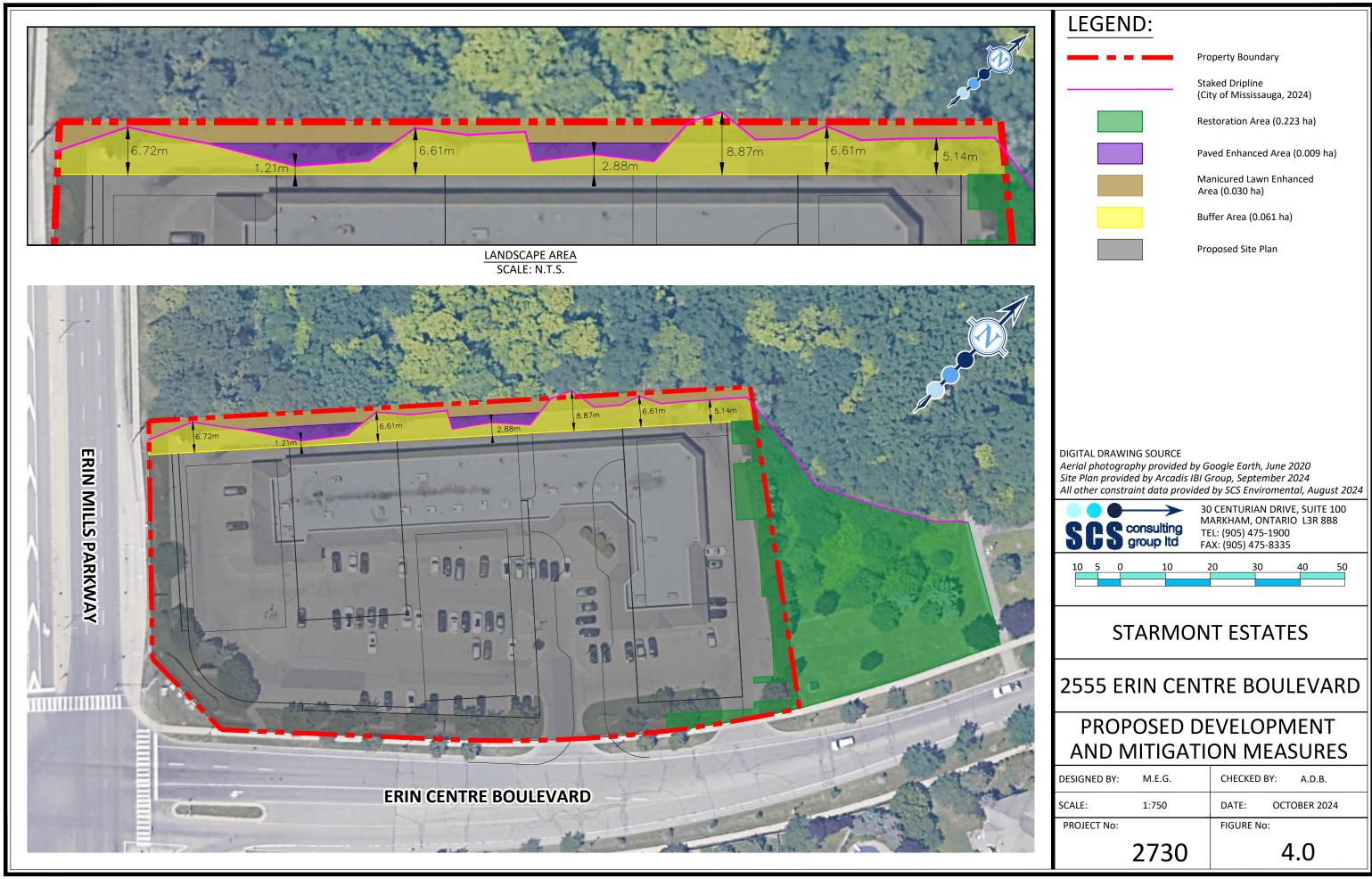
7.1 Proposed NHS

The Significant Woodlands, confirmed and candidate SWH, and candidate SAR habitat were identified through field investigations and background research.

Naturalized plantings included as part of the Landscaping and Planting Plan prepared by Strybos Barron King (SBK) are recommended within the buffer area located between the northern woodlot and the proposed development, as well as the easternly adjacent City owned lands (**Figure 4**, **Appendix G**). The buffer planting will occur in areas that are currently mowed lawn and paved asphalt, thus adding protection and an overall net ecological gain to the NHS. Existing mature native trees will be retained on the adjacent City owned lands as, while invasive species will be removed and replaced by native trees and shrubs, therefore enhancing the edge habitat of the NHS. Buffer and enhancement plantings will improve the dripline of Erin Woods Park, increase natural vegetation cover, provide additional urban wildlife habitat, and improve pedestrian exposure to natural areas within the community where the City owned lands meet the recreational trail.

Potential impacts from the proposed development and recommended mitigation measures are presented in **Section 8** and **9**.





8.0 Potential Impact Identification and Analysis

Construction of the proposed development has the potential to adversely impact the adjacent woodlot. Potential effects and proposed mitigation efforts are discussed further in the following sections.

8.1 Direct Impacts

Direct impacts are immediate results usually most evident during site preparation and construction phases of development. Potential direct impacts to the adjacent natural system include:

- Tree and vegetation removal;
- Erosion and sedimentation of Natural Features (Significant Woodland); and
- Loss of/disturbance to wildlife and their habitat.

These impacts are elaborated on in the subsequent sections.

8.1.1 Tree and Vegetation Removal

The proposed development encompasses the entirety of the Property and will require the removal of trees and ground vegetation removal where hedgerows and landscape trees in and around Property are located, in order to facilitate grading and construction. Based on the Tree Inventory and Preservation Plan (TIPP) provided by SBK (See **Appendix C**), 44 trees (18 private trees and 26 street trees) require removal, 6 on municipal land and the remaining 38 within the Property. All trees identified for removal consist of non-native species such as Norway Maple, Blue Spruce, Black Pine, English Oak, and Hawthorn sp. A portion of the trees removed show signs of decay but are located near the street, disconnected from the NHS, and the additional trees do not contain cavities or snags. Thus, potential impacts are not anticipated for candidate SWH for Bat maternity roosts or roosting habitat for SAR bats.

The 26 street trees are protected by the City's Public Tree Protection By-law (0020-2022) and the 18 private trees are protected by the City's Private Tree Protection By-law (0021-2022). Recommendations for removal with require the appropriate permits and will follow policies outlined in the By-laws. To compensate for the removals, restoration/ enhancement is proposed on the City owned lands directly east of the Property.

Vegetation removal will be minimal as the ground layer beneath removed trees consists primarily of manicured lawn and paved surfaces. The removal of the curb and asphalt closest to northern boundary may impact the root zones of vegetation that make up the adjacent woodlot dripline. Impacts should be temporary as this area will be enhanced with native buffer plantings. Swales will be installed between the NHS and the proposed

development to control surface water flows (See **Appendix G**). The installation may require select tree removal or impact the root zones of trees in the immediate vicinity, although swales can be considered a contribution to habitat diversity within the buffer area additional to the NHS.

The removal of trees will result in a reduction of tree cover, alter soil conditions and infiltration, and reduce general wildlife habitat. Site specific impacts may include:

- Direct loss of trees;
- Decreased vegetation species abundance and richness;
- Alteration to microclimate; and,
- Physical injury to trees not intended for removal as a result of construction operations.

The removal of selected trees will result in minimal loss to ecological functions as they are non- native landscape trees that are disconnected from the NHS and are bordered by paved impervious surfaces.

Mitigation and enhancement opportunities are further discussed in Section 9.

8.1.2 Erosion and Sedimentation of Natural Features

There are potential impacts to natural features as a result of development if best management practices for construction are not followed. Erosion and sedimentation may have an effect on the following:

- Disturbance to/loss of vegetation due to the deposition of dust and mobilization of soil; and
- Disturbance and sedimentation to Erin Woods Park due to the deposition of dust and mobilization of soil.

Mitigation opportunities for erosion and sedimentation control are further discussed in **Section 9.5**.

8.1.3 Loss of/Disturbance to Wildlife and Their Habitat

Field investigations and recommended development constraints were undertaken to prioritize the protection of sensitive and significant natural heritage features to minimize potential adverse environmental impacts. Development may affect habitat and wildlife through:

- Displacement, injury, or death as a result of contact with construction equipment and/or new development structures; and
- Loss of general wildlife habitat.



Marginal habitat for urban flora and fauna may be impacted as a result of site disturbances due to construction. The deciduous forest community adjacent to the Property provides habitat for breeding birds. While the woodlot is being retained, the addition of high-rise buildings in proximity to their habitat may lead to increased mortality to birds during spring and fall migration events. Large surface areas made of glass reflect light and nearby vegetation, and create a glare contributing to fatal collisions.

Mitigation opportunities relating to wildlife and their habitats are further discussed in **Section 9.3**.

8.2 Indirect Impacts

Indirect impacts do not always occur in the development area, but may occur in the lands adjacent to the development. Indirect impacts can begin in the construction phase and can persist post-construction. Potential indirect impacts of the proposed development include:

- Anthropogenic disturbance; and,
- Colonization of non-native or invasive species.

8.2.1 Anthropogenic Disturbance

Lands adjacent to the proposed development area can be indirectly impacted by construction activities and disturbance to local wildlife communities can occur if left unmitigated. Wildlife may be deterred from using natural features following vegetation removal, increased light pollution, loud noises, vibrations, and increased anthropogenic activities and human presence. Disruption to wildlife behaviour related to breeding, feeding, nesting, and raising of young could adversely influence the population size and breeding success of local wildlife. These effects are more significant when new development occurs in non-urban areas. Impacts of disturbance are anticipated to be minor as the Property is adjacent to existing highly urbanized areas and busy roads and currently supports commercial activities.

Mitigation opportunities for anthropogenic disturbances are further discussed in **Section 9**.

8.2.2 Colonization of Non-native or Invasive Species

The results of the botanical inventory and TIPP provide evidence that the Property contains a high proportion of non-native and invasive species. Physical site disturbance may have the potential to introduce additional non-native and/or invasive species to surrounding vegetation communities, primarily Erin Woods Park. Disturbed sites improve the establishment efficiency of invasive plant species, allowing them to



outcompete native counterparts. This type of colonization has occurred in the easternly adjacent City owned lands which contain species such as Common Buckthorn, Tatarian Honeysuckle, Garden Bird's-foot Trefoil, Multiflora Rose, and Fuller's Teasel. The area between the existing buildings and the northern woodlot is currently mowed lawn and has the potential to be colonized by invasive species if disturbed, adversely impacting the ecological function and native biodiversity of the forested system. Plantings of native species in landscaping and restoration/enhancement plans is recommended to mitigate the impacts of non-naïve and/or invasive species.

Mitigation and enhancement opportunities are further discussed in Section 9.2.1.

9.0 Proposed Mitigation Measures

Impacts caused by development can be minimized or avoided through mitigation efforts that may include following best construction practiced, intentional designs, and restoration/enhancement plans. The feasibility of mitigation efforts has been evaluated based on the natural heritage features on and adjacent to the Property. The potential impact assessment outlined three potential direct impacts (tree and vegetation removal, sedimentation of natural features, and loss of/disturbance to wildlife and their habitat) and two potential indirect impacts (anthropogenic disturbance and colonization of non-native and invasive species).

Various mitigation approaches can be used to address the aforementioned impacts. Proposed measures include natural heritage buffers including additional enhancement/restoration within the staked dripline, a landscaping and planting plan, invasive species management, a wildlife impact mitigation plan, bird friendly designs, a stormwater management plan, an erosion and sediment control plan, and an environmental monitoring plan. Each mitigation approach is elaborated on below.

Details will be finalized in consultation with the City as the proposed development application proceeds through the approvals process.

9.1 Natural Heritage Buffers and Restoration Area

The proposed development will be limited to the Property and development limit boundaries, shown on **Figure 4**, with a 7m landscape area (0.112 ha) that includes portions of the adjacent significant woodlot's staked dripline as well as the proposed naturalized buffer area. In order to maximize habitat potential for the NHS in this area, enhancement within the landscape area is proposed. In its current state, there are paved areas under sections of the dripline canopy and the ground cover between the woodlot and the existing parking lot is manicured lawn; therefore, these areas will also be restored with appropriate native edge and subcanopy species in addition to the buffer area beyond the staked dripline. Enhancing the buffer with native trees and shrubs will increase the quality of immediate edge habitat and provide protection to adjacent natural features. The combined 0.112 ha of natural plantings is considered an addition to the City's NHS as the conversion from paved surfaces and lawn provide a net ecological gain to the woodland system.

As illustrated on **Figure 4**, the proposed buffer width ranges from 8.87 m to 1.21 m, resulting in an overall buffer area of 0.061 ha. Additional areas currently paved that are beneath the staked dripline to be enhanced/naturalized equal to 0.009 ha. Other areas that are currently manicured grass and below the staked the dripline that are to be enhanced/naturalized equal 0.030 ha. Cross-sections of the pre- and post-construction buffer/landscape area have been prepared to illustrate the net ecological gain that is

being proposed within the Property both below and beyond the staked dripline (see **Appendix G**).

In addition, there is a proposed restoration area of City owned lands to the east of the Property. This area is identified as a Mixed Thicket (THM) in the ELC survey consisting primarily of invasive species that pose a threat to the adjacent mature Maple-Oak woodlot (Erin Mills Park). Restoration of this area would remove these invasive species and replace them with native planting appropriate for this area and inline with existing species within the park that have already established. It also provides the opportunity to plant a successional planting plan that would limit the establishment of invasive edge species. The area proposed for restoration is approximately 0.223 ha.

Therefore, the proposed buffer area (0.061 ha), enhancement areas below the dripline (0.039 ha), and the restoration area (0.223 ha) combined total approximately 0.323 ha. Whereas a dripline buffer of 10 m within the Property boundaries would result in approximately 0.149 ha. As a result, the proposed buffer area, enhancement areas, and restoration area afford a net ecological gain to the NHS of approximately 0.323 ha.

As outlined in the Regional and City OPs, impacts to the Core Area of the Greenlands system and its functions will be mitigated through enhancement and restoration to the greatest extent possible and potential negative impacts will be minimized. In accordance with Section 6.3.7 of the City's OP, the proposed buffer will aim to retain attenuation of stormwater runoff, reduce human intrusion and the predation habits of pets into Significant Natural Areas, protect tree root zones, provide a safety zone for tree fall next to woodlands, and enhance the woodland interior and edge through plantings of native species.

Enhancement plantings will be further refined in a landscaping and planting plan during the detailed design stage of the project.

9.2 Landscaping and Planting Plan

A Landscaping and Planting Plan was prepared by SBK to enhance the buffer area between the City's NHS and the proposed development at the northern boundary. These lands contribute to the NHS by providing opportunities for protection, restoration, and support ecological functions. Enhancement will increase wildlife habitat and provide a net gain to the NHS.

9.2.1 Invasive species management

City owned lands to the east of the Property currently contain invasive species (Common Buckthorn, Tatarian Honeysuckle etc.) that impede the success of native flora species and reduce the quality of native habitat. The removal of such species will improve ecological function through the addition of native species that reflect the



composition of the adjacent NHS. Control methods within the Landscaping and Planting Plan prepared during the detailed design stage of this plan will follow best management practices.

9.3 Wildlife Impact Mitigation Plan

Impacts to general wildlife populations can be mitigated prior to and during construction through the following recommended strategies:

- Ensure that construction activities are in conformance with the Migratory Birds Convention Act (1994) prior to site disturbance, confirm that no migratory birds are using the site to nest and that no nests will be impacted by development operations. Schedule vegetation clearing and grading outside of the breeding bird window (April 1st to August 31st), should activities occur within that window, qualified personnel must conduct nest searches 48 hours prior. If nests are found, proximal work should cease until fledglings have exited;
- Schedule vegetation clearing and grading outside of bat roosting windows (April 1st to September 30th);
- Where possible, maximize the distance between the woodland and heavy construction equipment usage to avoid damage to vegetation and disturbance to wildlife;
- Avoid or minimize the use of lighting where possible, especially aimed towards the NHS;
- Install wildlife exclusion fencing that directs wildlife away from construction areas, where possible;
- Visually monitor for wildlife and avoid encounters when possible, a qualified biologist may monitor areas of potential habitat and relocate wildlife found within the development area;
- Construction workers should be educated on local wildlife and the appropriate measures for avoiding them; and,
- Should an animal be injured on site or found injured, they should be transported to the nearest appropriate wildlife rehabilitation center.

9.3.1 Bird Friendly Designs

The presence of reflective surfaces and light pollution in urban areas are the leading factors that contribute to increased bird mortality due to fatal collisions. As breeding birds inhabit the adjacent woodlot, it is important to reduce the presence of these factors for new development to limit the number of associated bird mortalities.

In accordance to the Fatal Light Awareness Program (FLAP) and the City's Green Development Standards: Going Green in Mississauga (2012), the following guidelines are recommended to mitigate fatal collisions by migrating birds on the Property:

- Install treated glass with a density pattern between 10-28cm apart for at least 10-12m above grade;
- Mute glass reflections for a minimum of the first 10-12m portion of a building above grade, treat glass to a minimum of 12m above the level of adjacent green roofs;
- Install exterior walls that produce visual markers;
- Install glass with fritted or etched patterns, opaque or frosted sections if possible;
- Adhere translucent film or decals with 5cm maximum gaps between them to the exterior of glass surfaces;
- Use glass with paned framing; and
- Install window grilles or louvres.

The aforementioned design features will be further refined during the detailed design stage of the project.

9.4 Stormwater Management Plan

Current conditions on the Property prevent stormwater runoff into the NHS and proposed development aims to maintain these conditions.

The following stormwater runoff control criteria to be used for the proposed development have been established based on the City of Mississauga design criteria (2020) and the MECP Stormwater Management Planning and Design Manual (2003). The stormwater runoff criteria are summarized below in **Table 9**.

Table 9: Stormwater Runoff Control Criteria

Criteria	Control Measure
Quantity Control	As the proposed site is located within the Mullet Creek
	Subwatershed, control proposed peak flows to existing peak flows
	for the 2 through 100-year storm, and regional storm evets (CVC).
	Control peak flows to the designed capacity of the storm sewer
	(City of Mississauga).
Quality Control	Provide MECP Enhanced (Level 1) Protection for 80% TSS Removal
	(CVC, MECP).
Erosion Control	Retain the 5 mm rainfall runoff on-site by way of infiltration,
	evapotranspiration, re-use or filtration (City of Mississauga, CVC).
Water Budget	As this site does not lie within the Wellhead Protection Area
	(WHPA) or Significant Groundwater Recharge Area (SGRA), the
	water budget criteria will be achieved via the retention of the
	equivalent of 5mm of rainfall over the development area.

Mitigation for the proposed stormwater infrastructure is required to control erosion, minimize impacts to the water balance, and control quantity and quality of stormwater. Erosion control will be provided via a proposed water re-use tank, which will be located in the underground parking garage. The water re-use tank has been sized to provide a volume equivalent to the first 5 mm of runoff from all impervious surfaces. Where feasible, measures to minimize impacts on the water budget will be incorporated into the proposed development design. The required water balance is 33.9m³ and the water re-use tank is sufficient to address the water balance requirements.

The proposed 100-year piped release rate will be controlled to the existing 10-year peak runoff rate to Erin Centre Boulevard. Flows will be controlled via an orifice tube located downstream of the underground stormwater tank.

To accommodate the controlled release rate, an underground stormwater tank is located within the underground parking garage. To contribute to the treatment train approach and to improve the level of quality control, a manufactured treatment device (MTD), specifically a HydroFilter unit is provided to treat runoff from the proposed development site prior to discharging to Erin Centre Boulevard. The HydroFilter HF11 is sized to provide MECP Enhanced (Level 1) Protection (80% TSS removal).

Table 10 outlines the best management practices (BMPs) proposed for this development.

Table 10: Summary of the Recommended Stormwater Best Management Practices

Stormwater Management Control	Recommended BMP
At-Source Controls	Increased Topsoil Depth
	Passive Landscaping
Conveyance System Controls	Grassed Swales
End Of Pipe Controls	Underground Stormwater Detention System
	Manufactured Treatment Device

An increase in the proposed topsoil depth is recommended to promote at source infiltration (minimum 0.3 m depth), and will also contribute to at source quality and quantity control, and ground water recharge. A topsoil depth of 0.30 m is proposed.

Planting of gardens and other vegetation designed to minimize local runoff or use rainwater as a watering source can be used to reduce rainwater runoff by increasing evaporation, transpiration, infiltration and contribute to groundwater recharge. By



promoting infiltration through passive landscaping, water quality and quantity control is provided for the volume of water infiltrated. Landscaped areas are proposed on the north and east sides of the proposed development. Grassed swales conveying runoff are proposed to promote infiltration, filtration, and evapotranspiration, contributing to water quality and quantity control, and contribute to groundwater recharge.

9.5 Erosion and Sediment Control Plan

Construction operations that involve the handling of soil significantly increases the accessibility of sediment that can be carried by surface flows. Measures for erosion and sediment control are required for construction sites to mitigate the negative environmental impacts caused by the release of sediment loaded runoff and the removal of soil from vegetated systems, such as the dripline trees of Erin Woods Park. These strategies aim to protect adjacent habitat and natural heritage features. Inspection and maintenance of control measures is required to ensure effectiveness is preserved.

An Erosion and Sediment Control Plan will be finalized in consultation with the City at the detailed design stage.

9.6 Environmental Monitoring Plan

An Environmental Monitoring Plan should be conducted throughout the duration of construction work on site to assess and control potential impacts to natural features due to erosion and sedimentation. Monitoring should occur from the initial earthworks until site stabilization has concluded. The site is defined as stabilized once buildings have been completed, plantings (including restoration) and landscaping have taken place, and roads have been paved.

The Environmental Monitoring Plan will include monitoring of erosion and sediment control measures as well as restoration/enhancement/compensation plantings. Maintenance, including periodic cleaning or reinforcing structure, may be required as part of erosion and sediment control monitoring efforts. Replacement of damaged control measures should be implemented promptly following detection. Inspections should be completed by a certified monitor following the City of Mississauga Erosion and Sediment Control By-law 512-91.

Protected vegetation areas, including restoration/enhancement/compensation planting areas, should be monitored periodically to ensure they are not impacted by development activities. Effected vegetation must be replaced or restored. The Environmental Monitoring Plan should be carried out either on a biweekly bases or after every rainfall event >10 mm during the active construction period.



10.0 Summary

This EIS was prepared in support of proposed development at 2555 Erin Centre Boulevard in the City of Mississauga. The findings of the 2024 field investigations, which consisted of secondary source reviews, ELC, botanical inventory, and breeding bird survey, completed for the Study Area are presented in this EIS. Due to the presence of natural heritage features adjacent to the Property with the potential to be impacted by development activities, this EIS was prepared in consideration of the City's EIS ToR (2002).

Through background review and field studies, it was determined that the Property consists of Mixed Use commercial buildings that include retail stores, restaurants etc. and associated parking lots. The forested portion of the Study Area, Erin Woods Park, along the northern Property border is part of the Region and City's Greenland system. This forest community is dominated by Sugar Maple, Red Oak, and Shagbark Hickory, with a trail network that community members use for recreation. Appropriate buffers will be established to protect the NHS, the habitat and ecological functions it provides. In addition, buffer plantings, and enhancement planting of native species will be used within and adjacent to the Property. On City owned lands to the east of the Property exists a non-native/invasive species (e.g., Common Buckthorn, Tatarian Honeysuckle) dominated thicket that abuts the woodlot. An opportunity exists to facilitate invasive species control within this area and restore with native plantings, the increase in natural vegetation (0.323 ha, **Figure 3**) within buffer areas and City owned lands will provide an overall net gain to the NHS.

Potential ecological impacts of development may include tree and vegetation removal, diversion of surface water flows, sedimentation into forest areas, and loss of potential wildlife habitat. Implementing the mitigation, restoration, compensation, enhancement and management measures described in this report will minimize or avoid these impacts. As such, a Landscaping and Planting Plan has been developed by SBK to provide buffer plantings, restore the thicket on City owned lands, and assist in preventing the colonization of non-native/invasive species. A SWM Plan has also been created by SCS to ensure the maintenance of existing surface water flow patterns. An ESC Plan will be developed during the detailed design stage to ensure proposed development activities to not adversely affect natural features in proximity to the Property. Additionally, an EMP is recommended during the active construction period to monitor the effectiveness of mitigation strategies being implemented to protect the natural environment.

Based on the information currently available and presented in this report, proposed development is in accordance with the intent of the applicable policies described in **Section 3** of this report.



Respectfully Submitted

SCS Consulting Group Ltd.

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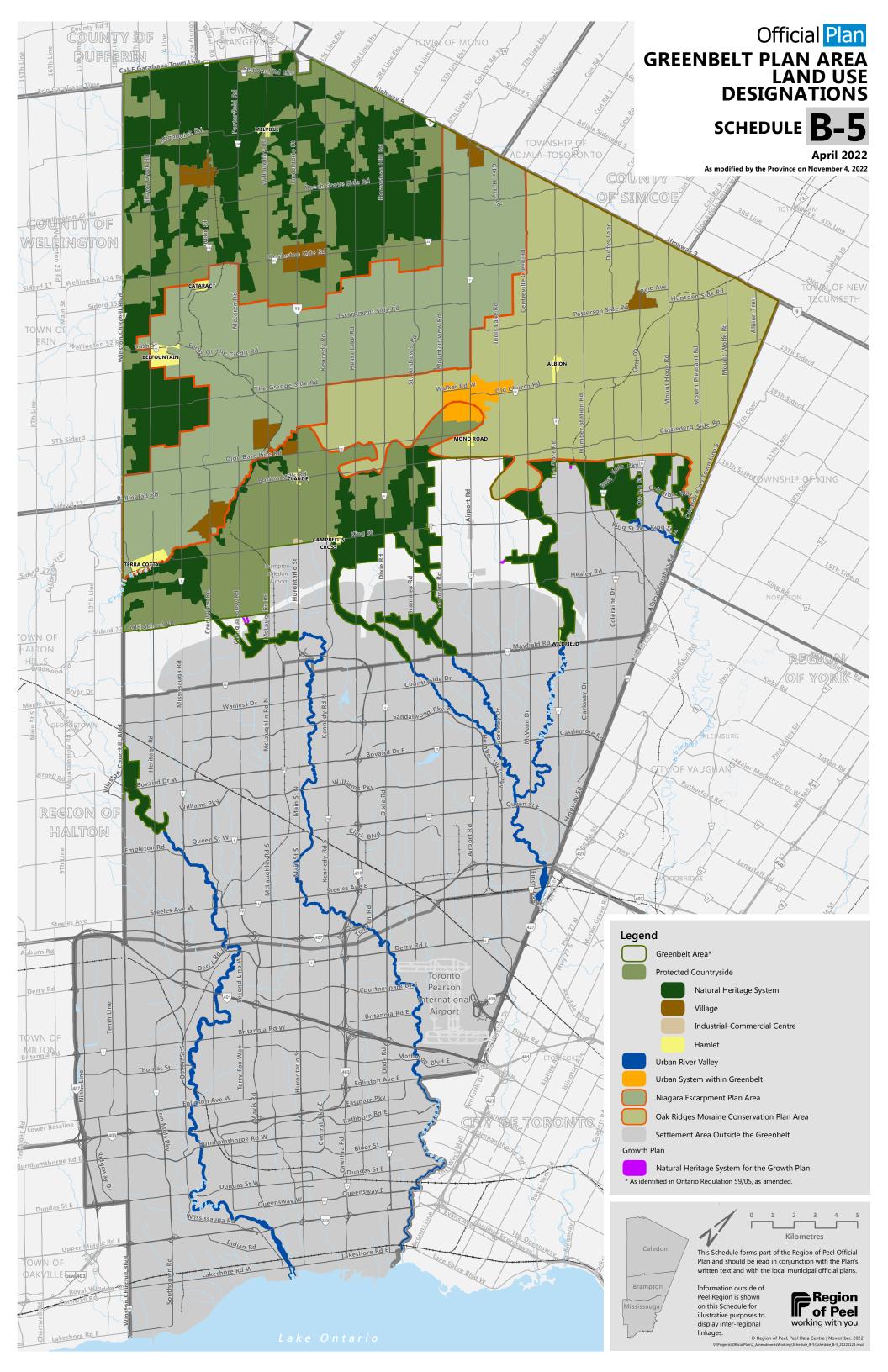
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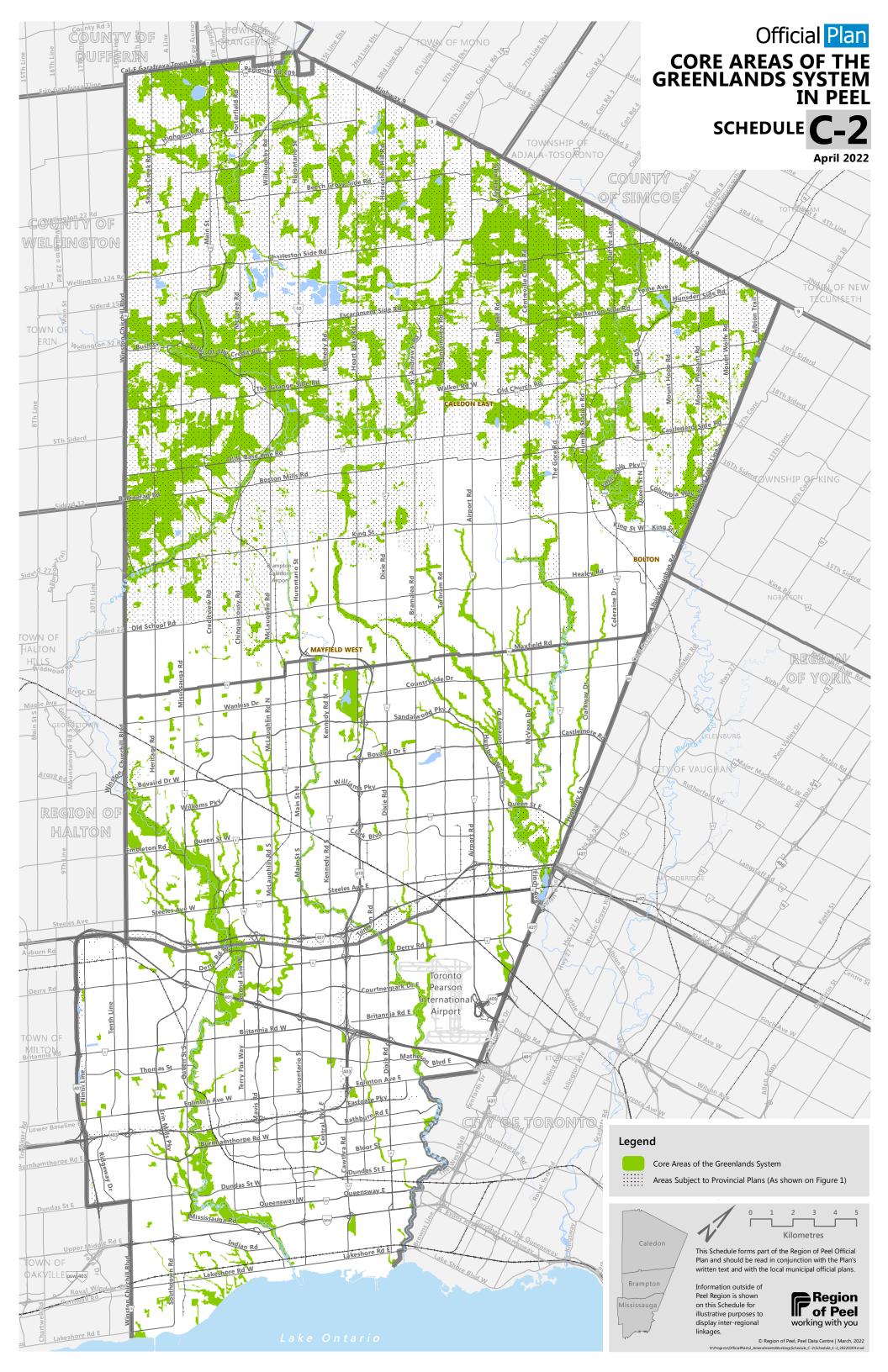
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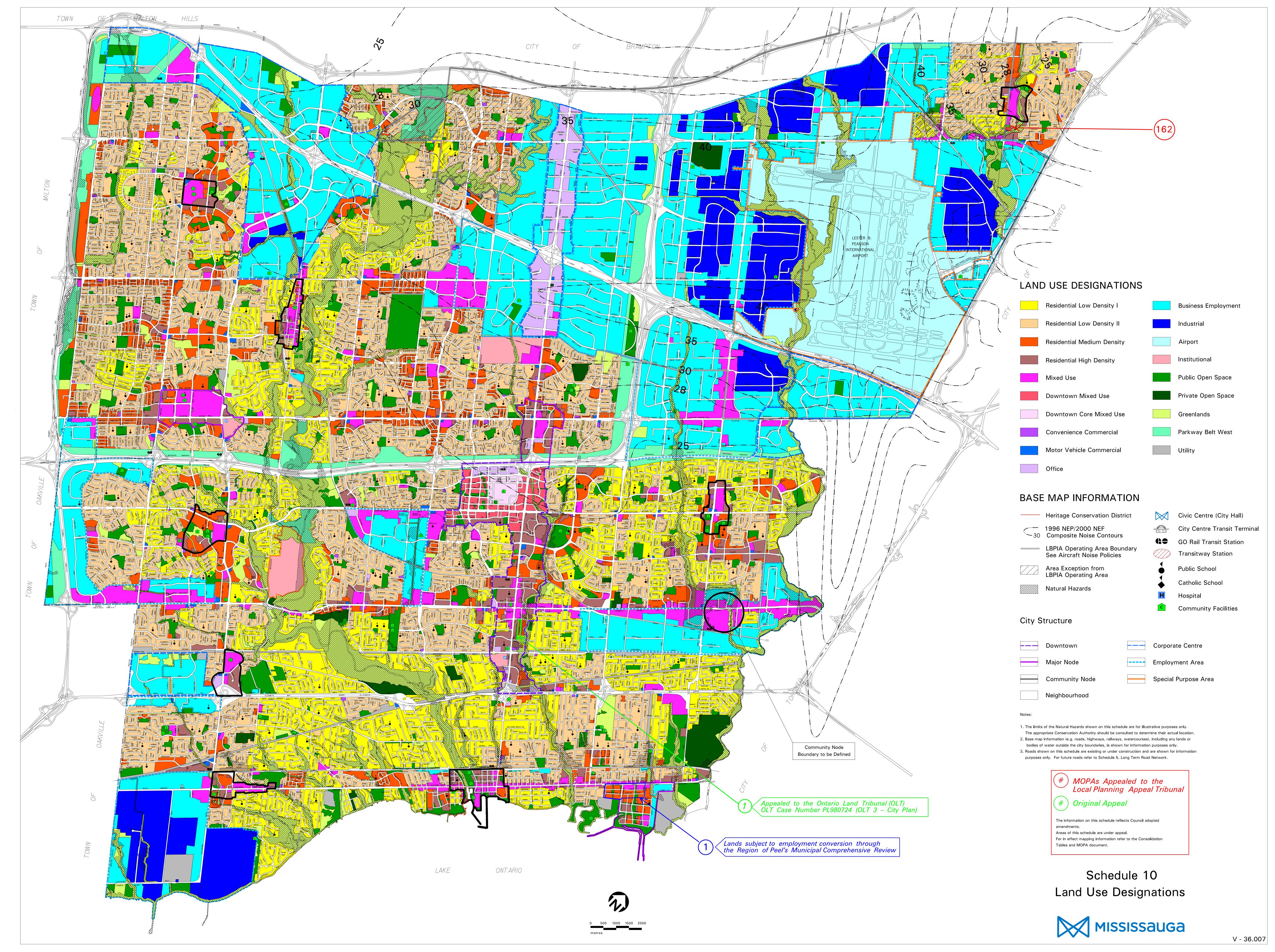
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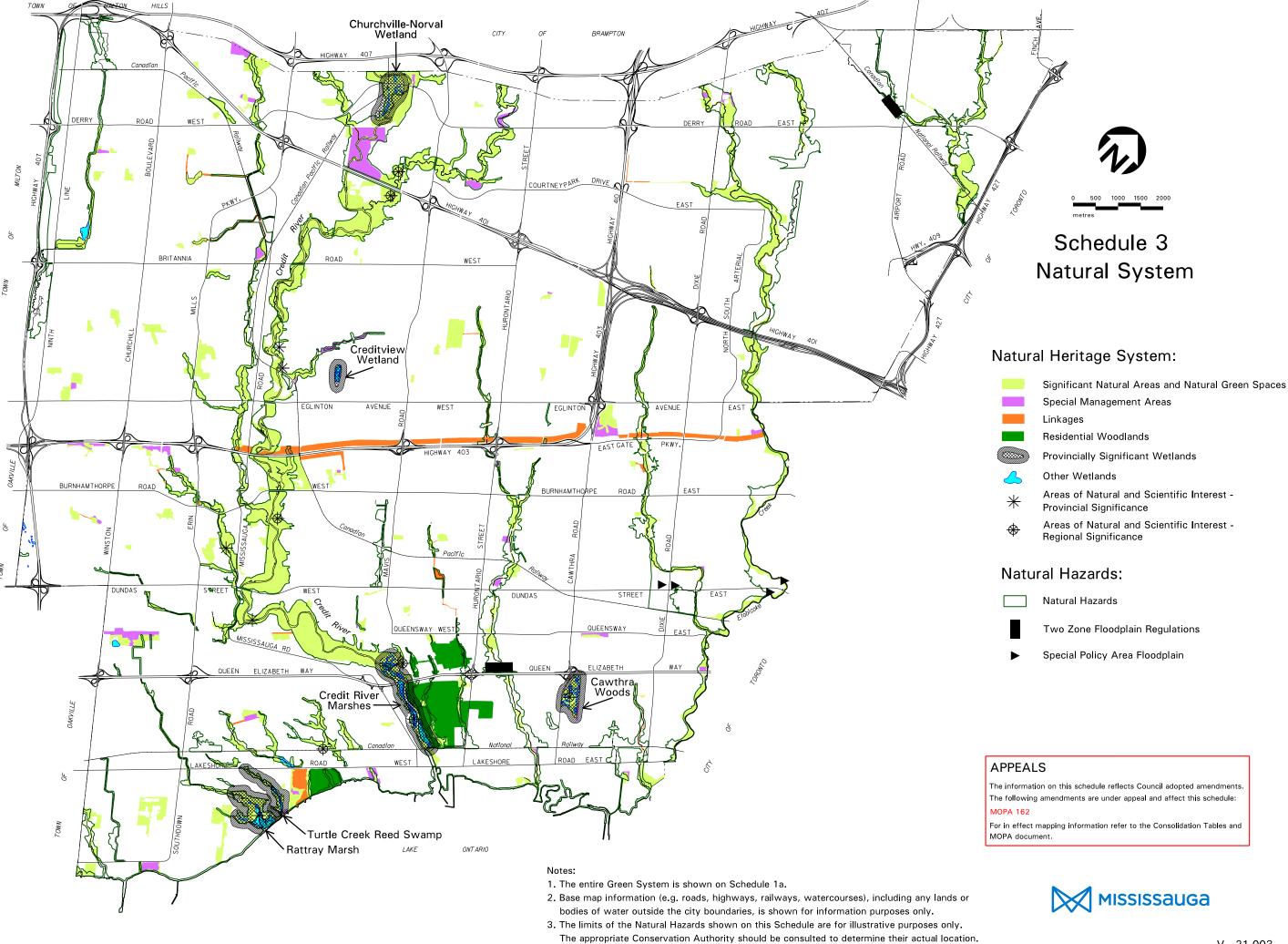
APPENDIX A POLICY PLANNING SCHEDULES

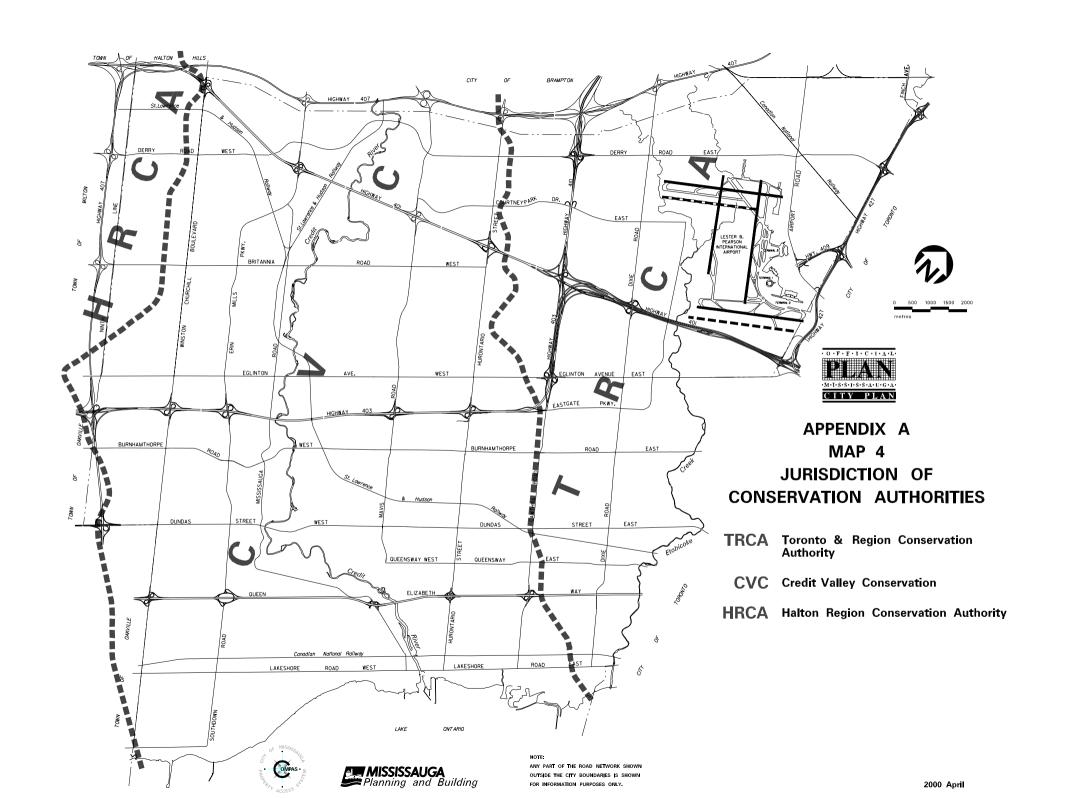








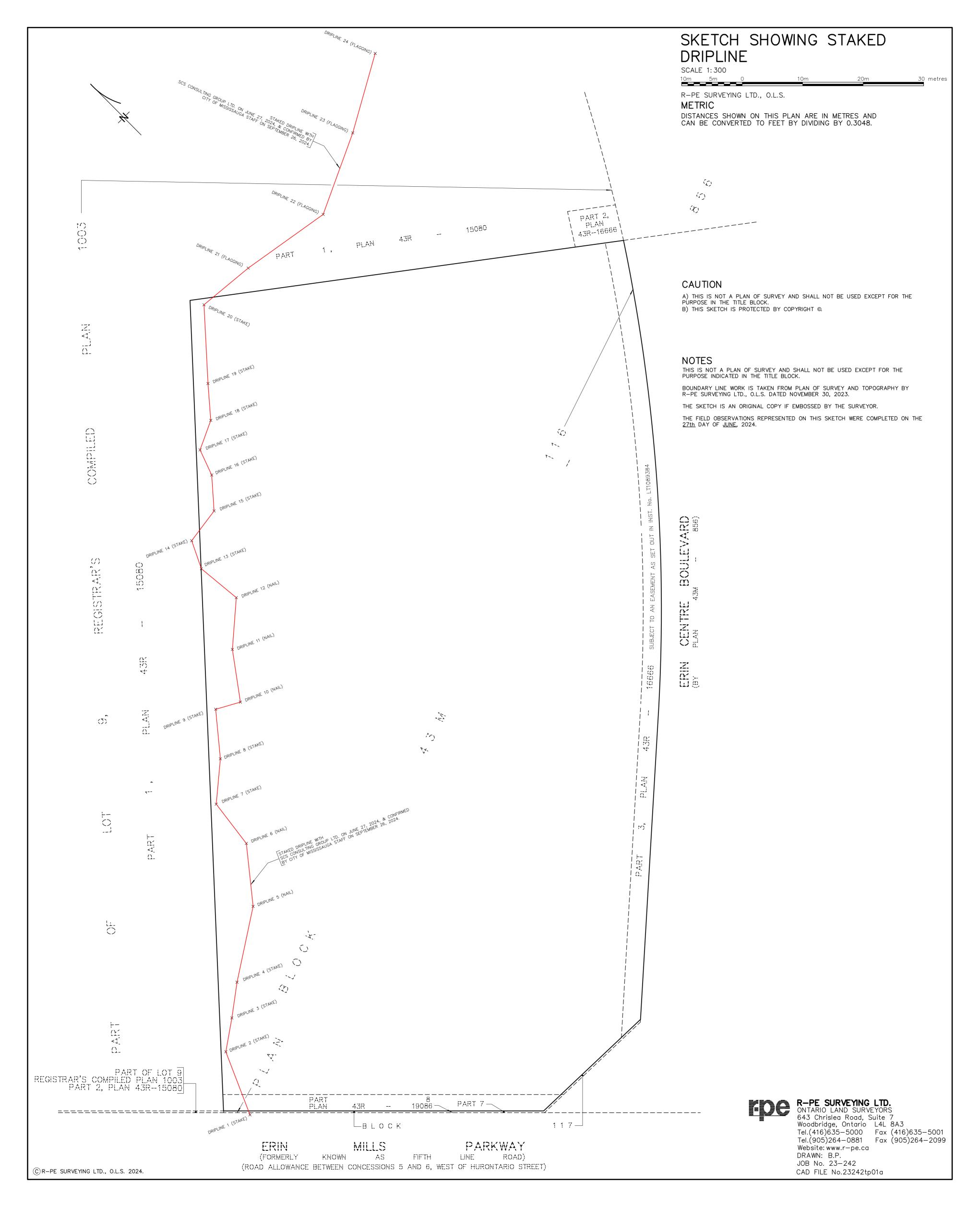




APPENDIX B

SITE STAKING CONFIRMATION





From: Jeffrey Driscoll < Jeffrey.Driscoll@mississauga.ca>

Sent: Friday, October 11, 2024 12:55 PM

To: Carmina Tupe

Cc: Paul Tripodo; Simon Latam; Gabe DiMartino; Jim

Greenfield; Benson, Al; Golin, Misha

Subject: RE: 2555 Erin Centre - EIS Site Visit

CAUTION: This email originated from an **EXTERNAL SOURCE**. Please use caution when opening attachments, clicking on links or responding. When in doubt, contact our IT Department.

Hi Carmina,

Thank you for circulating the results of the dripline survey. I have no objections to the dripline as provided. However, there is a minor edit required in the labelling of the line work. Please update the text to read: "Staked Dripline with SCS Consulting Group Ltd. On June 27, 2024, & confirmed by City of Mississauga Staff on September 26, 2024."

Cheers,

Jeff



Jeffrey Driscoll, MSc., MEnvSc.

Natural Heritage Specialist Forestry Section T 905-615-3200 ext. 4345 jeffrey.driscoll@mississauga.ca Pronouns: he / him / his

City of Mississauga | Community Services Department,

Parks, Forestry & Environmnet Division

R Please consider the environment before printing.

My working hours and yours may be different. Please do not feel obligated to reply outside of your normal working hours.

From: Carmina Tupe < ctupe@trinitypoint.com>
Sent: Thursday, October 10, 2024 4:01 PM

To: Jeffrey Driscoll < Jeffrey. Driscoll@mississauga.ca>

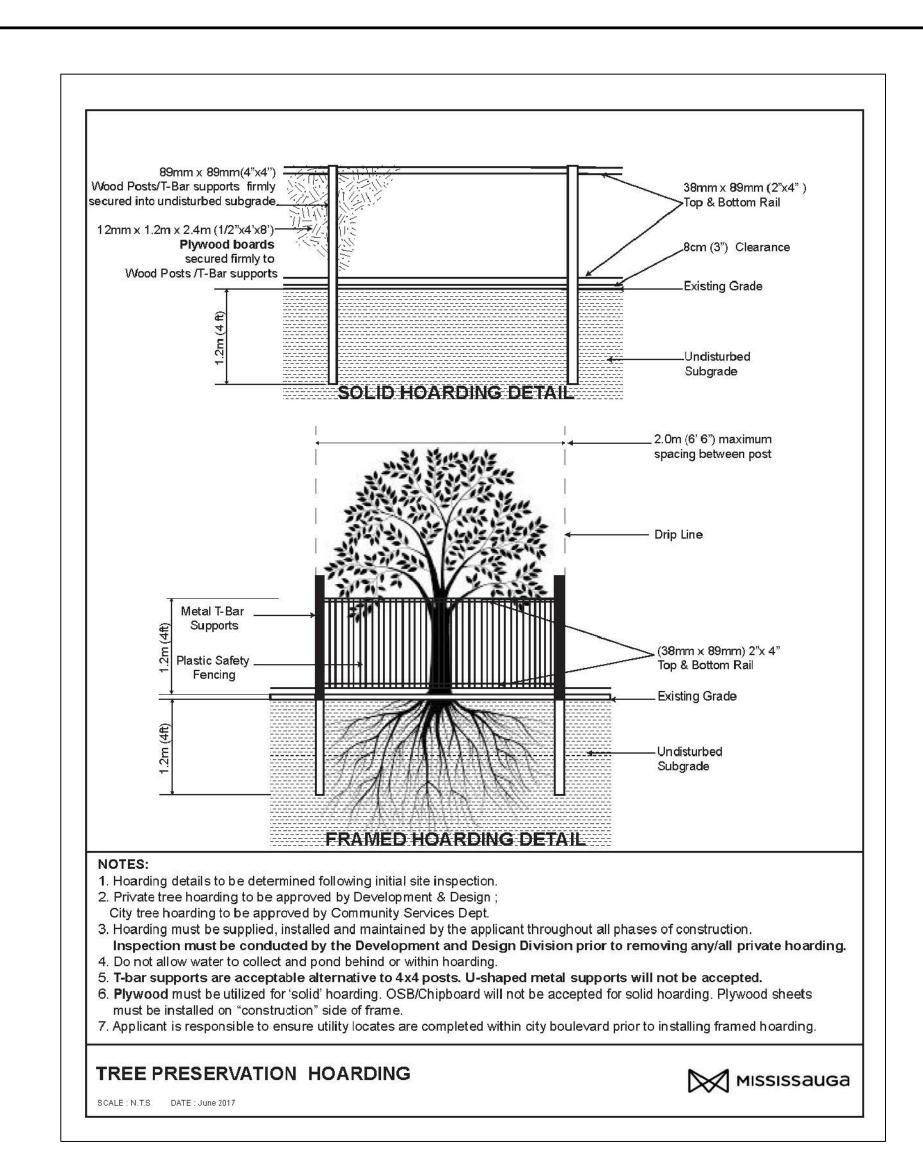
Cc: Paul Tripodo < Paul.Tripodo@mississauga.ca; Simon Latam < Simon.Latam@mississauga.ca; Gabe DiMartino < gdimartino@trinitypoint.com; Jim Greenfield < Jim.Greenfield@mississauga.ca; Benson, Al Abenson@scsconsultinggroup.com; Golin, Misha mgolin@scsconsultinggroup.com;

Subject: [EXTERNAL] RE: 2555 Erin Centre - EIS Site Visit

APPENDIX C

TREE INVENTORY AND PRESERVATION PLAN

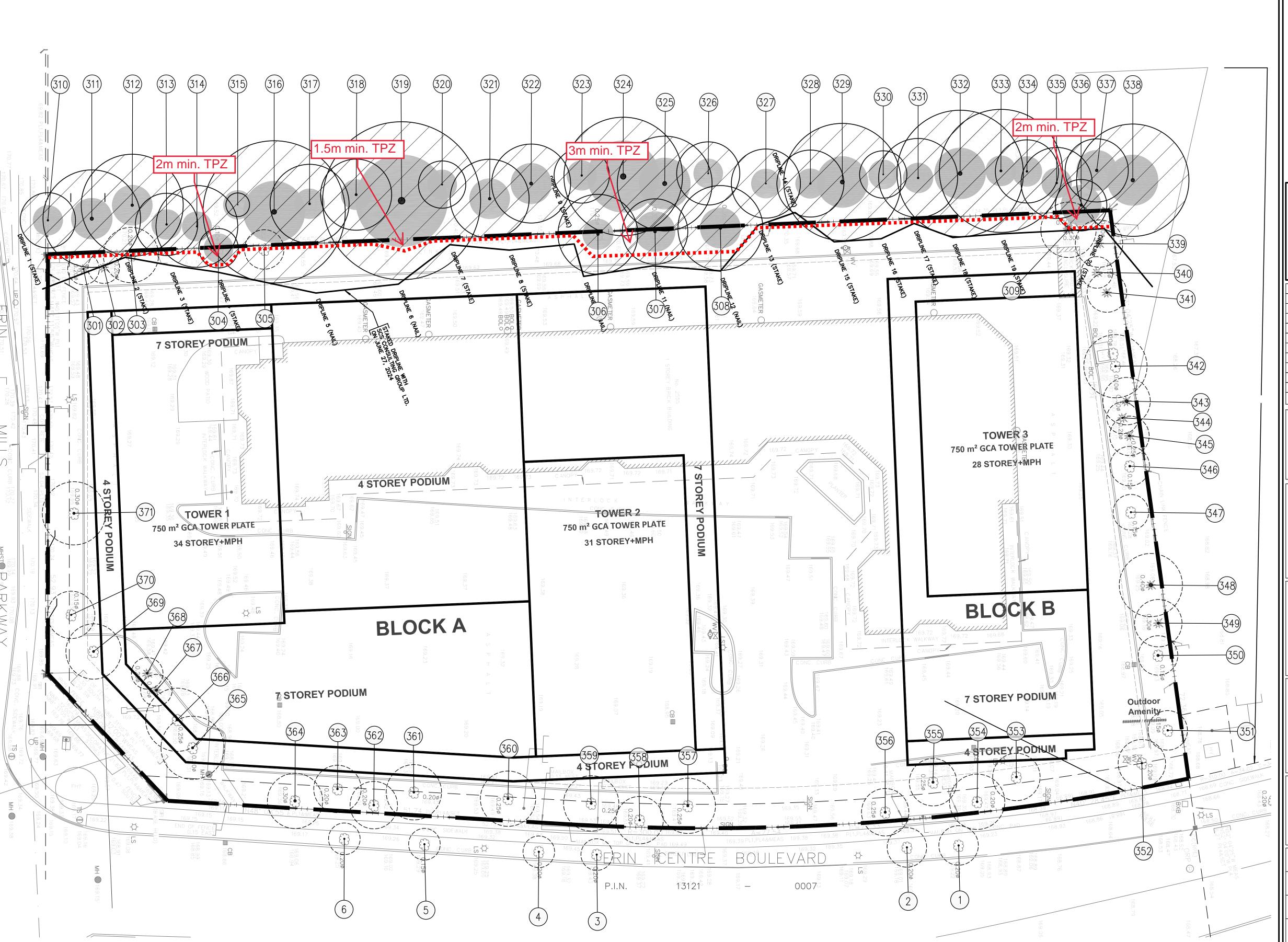




1 TREE PRESERVATION HOARDING DETAIL

KEV	STING TREE	DBH		HEALTH	STRUCTURE	COMMENTS	PRESERVATION	TREE CATEGORY	MIN. TPZ	KE
KEI	SPECIES	(cm)	(m)	G/F/P	STRUCTURE	COMMENTS	DIRECTION	CATEGORY	IVIIIN. IPZ	NE
1	Norway Maple	20.0	5.0	Poor	Narrow form	Significant crown dieback throughout	Remove	Municipal	1.8	1
2	Norway Maple	18.0	5.0	Poor	Narrow form	Significant crown dieback throughout	Remove	Municipal	1.8	2
3	Norway Maple	19.0	4.0	Poor	Narrow form	Declining	Remove	Municipal	1.8	3
4	Norway Maple	20.0	4.0	Poor	Narrow form	Declining	Remove	Municipal	1.8	4
5	Norway Maple	19.0	4.0	Poor	Narrow form	Declining	Remove	Municipal	1.8	5
6	Norway Maple	19.0	4.0	Dead			Remove	Municipal	1.8	6
	Colorado Blue	22.0	4.0	Fair	Irregular form	Crowded by adjacent tree	Remove	Private	1.8	30
	Spruce					,,,,				
302	Colorado Blue Spruce	20.0	4.0	Fair	Narrow form	Crowded by adjacent tree, dieback throughout	Remove	Private	1.8	30
03	Hawthorn	20-22	7.0	Poor	Double stem	One sided form, crowded by adjacent tree, significant decay and dieback	Remove	Private	1.8	30
0.4	l	44.0	F 0	0	0	throughout	D	Day and an a	4.0	1
	Ironwood	11.0	5.0	Good	One sided form	Crowded by adjacent tree	Preserve	Boundary	1.8	30
	Hawthorn	18.0	5.0	Poor	One sided form	Cavities in stem, deadwood in crown	Remove	Private	1.8	30
	Sugar Maple	28.0	12.0	Good	One sided form	Crowded by adjacent tree	Preserve	Boundary	1.8	30
	Sugar Maple	31.0	11.0	Good	One sided form	Crowded by adjacent tree	Preserve	Boundary	2.4	30
	Sugar Maple	33.0	12.0	Good	One sided form	Crowded by adjacent tree	Preserve	Boundary	2.4	30
309	Austrian Pine	32.0	7.0	Good	Asymmetrical	Elevated crown	Remove	Private	2.4	30
					form					
310	Manitoba Maple	13-18	7.0	Fair	Multi-stemmed	Asymmetrical form, leaning into subject site	Preserve	Parkland	1.8	31
311	Shagbark Hickory	40.0	20.0	Good	Good form	High crown	Preserve	Parkland	2.4	31
	Red Oak	26-30	15.0	Good	Double stem	One stem with decay, asymmetrical form	Preserve	Parkland	2.4	31
	Sugar Maple	20.0	5.0	Good	Asymmetrical	Crowded by adjacent tree	Preserve	Parkland	1.8	31
	-				form					
314	Apple	14.0	7.0	Fair	One sided form	Subordinated crown	Preserve	Parkland	1.8	31
	White Ash	6.0	3.0	Good	One sided form	Crowded by adjacent tree	Preserve	Parkland	1.8	31
	Red Oak	59.0	18.0	Good	Good form	High crown, leaning south	Preserve	Parkland	3.6	31
	Shagbark Hickory	22.0	10.0	Good	One sided form	Crown subordinated by adjacent tree	Preserve	Parkland	1.8	31
	Ironwood	25.0	9.0	Good	One sided form	Crown subordinated by adjacent tree Crown subordinated by adjacent tree, most of crown overhangs subject site	Preserve	Parkland	1.8	3
	White Oak	84.0	20.0	Good	High crown	Mature, some dieback in upper crown	Preserve	Parkland	5.4	31
	Black Cherry	13.5	6.0	Fair	One sided form	Subordinated crown	Preserve	Parkland	1.8	32
	Sugar Maple	30.5	10.0	Good	Good form	Crowded by adjacent tree	Preserve	Parkland	2.4	32
322	Sugar Maple	36.0	10.0	Good		Crowded by adjacent tree	Preserve	Parkland	2.4	32
323	Hawthorn	18.0	7.0	Good	Multi-stemmed	Leaning south, one sided form	Preserve	Parkland	1.8	32
324	Sugar Maple	68.0	15.0	Good	One sided form	High crown	Preserve	Parkland	4.2	32
	Sugar Maple	50.0	12.0	Good	One sided form	High crown	Preserve	Parkland	3.0	32
	Sugar Maple	11.0	8.0	Good	One sided form	Crowded by adjacent tree	Preserve	Parkland	1.8	32
	Sugar Maple	11.0	6.0	Good	One sided form	Crowded by adjacent tree	Preserve	Parkland	1.8	32
	Sugar Maple	17.0	7.0	Good	One sided form	Crowded by adjacent tree	Preserve	Parkland	1.8	32
	Red Oak	48.0	20.0	Good	High crown	Slightly asymmetrical crown	Preserve	Parkland	3.0	32
	Sugar Maple	11.0	6.0	Good	Narrow form	Crowded by adjacent tree	Preserve	Parkland	1.8	33
	Basswood	20.0	10.0	Good	Leaning	One sided form, crowded by adjacent tree	Preserve	Parkland	1.8	33
	Shagbark Hickory	47.0	16.0	Good			Preserve	Parkland	3.0	33
					High crown	Broad, asymmetrical canopy			1.8	33
	Sugar Maple	25.0	15.0	Good	High crown	Good form	Preserve	Parkland		
	Basswood	25.0	8.0	Fair	One sided form	Leaning south	Preserve	Parkland	1.8	33
	Ironwood	20.0	9.0	Good	Narrow form	Crowded by adjacent tree	Preserve	Parkland	1.8	33
		30.5	8.0	Good	Narrow form	Asymmetrical form, crowded by adjacent tree	Preserve	Parkland	2.4	33
	Shagbark Hickory	31.5	8.0	Good	One sided form	Crowded by adjacent tree	Preserve	Parkland	2.4	33
	Red Oak	42.0	12.0	Good	One sided form	Subordinated crown, some dieback on lower branches	Preserve	Parkland	3.0	33
	Austrian Pine	22.0	6.0	Good	Irregular form	Elevated crown	Remove	Private	1.8	33
340	Austrian Pine	1.0	4.0	Good	Narrow form	Elevated crown	Remove	Private	1.2	34
341	Austrian Pine	30.0	5.0	Good	One sided form	Multiple leaders, leaning	Remove	Private	2.4	34
342	Russian Olive	22.0	8.0	Fair	Multi-stemmed	Irregular form, leaning, internal dieback throughout	Remove	Private	1.8	34
343	Colorado Blue Spru	40.0	6.0	Good	Curved stem	Elevated crown, crowded by adjacent tree	Remove	Private	2.4	34
344	Colorado Blue	21.0	4.0	Fair	One sided form	Crowded by adjacent tree	Remove	Private	1.8	34
345	Spruce Colorado Blue	30.0	5.0	Good	One sided form	Crowded by adjacent tree	Remove	Private	2.4	34
	Spruce									
346	Pyramidal English Oak	25.0	5.0	Good	Good form	Minor dieback on lower branches	Remove	Private	1.8	34
347	Pyramidal	18.0	4.5	Fair	Good form	Dieback on lower branches	Remove	Private	1.8	34
140	English Oak	45.0	<u> </u>	0 '	Const	NA désala la calava		<u> </u>	1 22	+-
	Austrian Pine	45.0	8.0	Good	Good form	Multiple leaders	Remove	Private	3.0	34
	Austrian Pine	30.0	6.0	Good	Good form	Dieback on lower branches	Remove	Private	1.8	34
500	Pyramidal English Oak	30.0	5.0	Good	Good form	Minor upper crown dieback	Remove	Private	2.4	35
351	Pyramidal	22.0	5.0	Good	Good form		Remove	Private	1.8	35
	English Oak	20.5						<u> </u>	1	1
	Norway Maple	23.0	6.0	Poor	Good form	Girdles roots, significant internal crown dieback	Remove	Private	1.8	3
	Norway Maple	24.5	6.0	Poor	Good form	Half dead	Remove	Private	1.8	3
	Norway Maple	24.0	7.0	Fair	Good form	Dead leader, internal crown dieback	Remove	Private	1.8	35
555	Norway Maple	28.0	6.0	Fair	Good form	Internal crown dieback	Remove	Private	1.8	3
	Norway Maple	28.5	6.0	Poor	Good form	Significant dieback in crown	Remove	Private	1.8	3
	English Oak	28.0	7.0	Poor	Good form	Significant upper crown dieback	Remove	Private	1.8	3
	English Oak	22.5	6.0	Poor	Good form	Declining	Remove	Private	1.8	3
	English Oak	27.0		Fair	Good form	Dead leader, internal crown dieback	Remove	Private	1.8	3
60	English Oak	27.0	7.0	Poor	Good form	Half dead, declining	Remove	Private	1.8	36
	English Oak	24.0	7.0	Poor	Good form	Significant crown dieback throughout	Remove	Private	1.8	36
	English Oak	23.5	6.0	Good	Good form	Minor twig tip dieback in crown	Remove	Private	1.8	30
	English Oak	23.0	6.0	Fair	Good form	Dieback on east side of crown	Remove	Private	1.8	36
	English Oak	33.5	7.0	Fair	Good form	Twig tip dieback throughout	Remove	Private	2.4	36
	Norway Maple	28.0	8.0	Good	Good form	Slightly crowded by adjacent tree	Remove	Private	1.8	36
	Norway Maple	31.0	8.0	Good	Double leader	Narrow form, crowded by adjacent tree	Remove	Private	2.4	36
	Colorado Blue	31.0	4.0	Good	Narrow form	Elevated crown, dieback on lower branches	Remove	Private	2.4	36
368	Spruce Colorado Blue	28.0	4.0	Good	One sided form	Crowded by adjacent tree	Remove	Private	1.8	36
	Spruce	_ ∠o.∪ 	4.0		One sided form	Chowded by adjacent tiee	Neiliove	riivate	1.0	ال
	Norway Maple	26.5	7.0	Poor	High crown	Girdled roots, some dieback in crown	Remove	Private	1.8	30
370	Norway Maple	19.0	6.0	Fair	Irregular form	Pollarded crown, double leader	Remove	Private	1.8	37
_		20.0								

2 EXISTING TREE INVENTORY



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ERIN CENTRE BLVD

LEGEND

TREE PROTECTION HOARDING -EXISTING TREES TO BE PRESERVED MINIMUM TREE PROTECTION ZONE (TPZ) TREES TO BE PRESERVED EXISTING TREES TO BE REMOVED

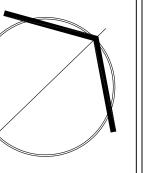
-MINIMUM TREE PROTECTION ZONE (TPZ)

-VEGETATION NUMBER KEY

MATTHEW C. GEHRES
International Society of Arboriculture
Certified Arborist #ON-1114A
Date: AUGUST 06, 2024

No. DATE. REVISION.

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PRELIMINARY TREE INVENTORY AND PRESERVATION PLAN

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APPENDIX D

STUDY AREA PHOTOGRAPHS





Representative Photos of ELC Vegetation Communities

Photo 1

Shows the Dry – Fresh Sugar Maple – Oak Deciduous Forest on the western extent of the Study Area.



Photo 2

Shows the Dry – Fresh Sugar Maple – Oak Deciduous Forest on the eastern extent of the Study Area.





Photo 3

Shows the edge of the Mixed Thicket facing south.



Photo 4

Shows the internal section of the Mixed Thicket, facing north towards the forest (FOD5-3).





Photo 5

Shows the internal section of the Mixed Thicket facing south towards the landscape trees and Fencerow (TAGM5).



APPENDIX E PLANT LIST





Table 6: Botanical Inventory

Scientific name	Common Name	SARA ¹	ESA ²	S-Rank ³	CC
Acer negundo	Manitoba Maple	-	-	S5	0
Acer platanoides	Norway Maple	-	-	SNA	
Acer saccharum	Sugar Maple	-	-	S5	4
Actaea	White Baneberry	-	-	S5	
pachypoda					
Alliaria petiolata	Garlic Mustard	-	-	SNA	
Arctium minus	Common Burdock	-	-	SNR	
Arisaema	Jack in the Pulpit	-	-	S5	5
triphyllum					
Asclepias syriaca	Common	-	-	S5	0
	Milkweed				
Carya ovata	Shagbark Hickory	-	-	S5	6
Circaea	Broad-leaved	-	-	S5	3
canadensis	Enchanter's				
	Nightshade				
Cornus	Alternate Leaved	-	-	S5	6
alternifolia	Dogwood				
Crataegus sp.	Hawthorn sp.	N/A	N/A	N/A	N/A
Daucus carota	Wild Carrot	-	-	SNR	
Dipsacus	Fuller's Teasel	-	-	SNR	
fullonum					
Elaeagnus	Russian Olive	-	-	SNR	6
angustifolia					
Erigeron	Daisy Fleabane	-	-	S5	10
hyssopifolius					
Fagus grandifolia	American Beech	-	-	S4	6
Fraxinus	White Ash	-	-	S5	4
americana					
Fraxinus	Green Ash	-	-	S4	3
pennsylvanica					
Geranium	Spotted Geranium	-	-	S5	6
maculatum					
Geranium	Herb Robert	-	-	S5	
robertianum					
Geum urbanum	Wood Avens	-	-	S5	
Gleditsia Honey Locust		-	-	S5	3
triacanthos					
Hypericum	Common St. John's	-	-	SNA	
perforatum	wort	1	1		



Scientific name	Common Name	SARA ¹	ESA ²	S-Rank ³	СС
Impatiens	Spotted Jewelweed	-	-	S5	4
capensis					
Leonurus cardiaca	Common	-	-	SNA	4
	Motherwort				
Lonicera tatarica	Tatarian	-	-	SNA	
	Honeysuckle				
Lotus corniculatus	Garden Bird's-foot	-	-	SNR	4
	Trefoil				
Maianthemum	False Solomon's	-	-	SNR	4
racemosum	Seal				
Malus sp.	Apple sp.	N/A	N/A	N/A	N/A
Ostrya virginiana	Ironwood	-	-	S5	4
Parthenocissus	Virginia Creeper	-	-	S4	6
quinquefolia					
Picea glauca	White Spruce	-	-	S5	6
Picea pungens	Blue Spruce	-	-	SNA	
Pinus nigra	Black Pine	-	-	SNR	
Pinus resinosa	Red Pine	-	-	S5	8
Plantago major	Common Plantain	-	-	S5	
Prenanthes altissi	Tall Rattlesnake	-	-	S5	5
та	Root				
Prunus serotina	Black Cherry	-	-	S5	3
Quercus alba	White Oak	-	-	S5	6
Quercus robur	English Oak	-	-	SNR	
Quercus rubra	Red Oak	-	-	S5	6
Rhamnus	Common	-	-	SNA	
cathartica	Buckthorn				
Robinia	Black Locust	-	-	SNA	
pseudoacacia					
Rosa multiflora	Multiflora Rose	-	-	SNR	0
Rubus idaeus	Red Raspberry	-	-	SNA	5
Sanguinaria	Bloodroot	-	-	S5	5
canadensis					
Solanum	Bittersweet	-	-	SNA	
dulcamara	Nightshade				
Solidago sp.	Goldenrod sp.	N/A	N/A	N/A	N/A
Symphyotrichum	Aster sp.	N/A	N/A	N/A	N/A
sp.					
Tilia americana	American	-	-	S5	4
	Basswood				



Scientific name	Common Name	SARA ¹	ESA ²	S-Rank ³	CC
Trillium grandiflorum	White Trillium	-	-	S5	5
Ulmus americana	American Elm	-	-	S5	3
Vitis aestivalis	Summer Grape	-	-	S5	7
Waldsteinia fragarioides	Barren Strawberry	-	-	S5	5

¹Federal Species at Risk Act (THR = Threatened, SC = Special Concern); ²Ontario Endangered Species Act (THR = Threatened, SC = Special Concern); ³Ontario S-Rank (S4 = Apparently Secure, S3 = Vulnerable, S2 = Imperiled, B = Breeding Population, N = Non-Breeding Population).

APPENDIX F

BREEDING BIRD SURVEY RESULTS





Table 7: Breeding Bird Survey Observations

Scientific Name	Common Name	SARA ¹	ESA ²	S-Rank ³	Breeding Evidence ⁴
Cardinalis cardinalis	Northern Cardinal	-	-	S5	S
Bombycilla cedrorum	Cedar Waxwing	-	-	S5	Х
Turdus migratorius	American Robin	-	-	S5B	S
Cyanocitta cristata	Blue Jay	-	-	S5	S
Larus delawarensis	Ring Billed Gull	-	-	S5	Х
Buteo jamaicensis	Red tailed Hawk	-	-	S5	S
Poecile atricapillus	Black capped Chickadee	-	-	S5	S
Sitta carolinensis	White breasted Nuthatch	-	-	S5	S
Corvus brachyrhynchos	American Crow	-	-	S5	S
Ardea herodias	Great Blue Heron	-	-	S4	Х
Carduelis tristis	American Goldfinch	-	-	S5	S
Spizella passerina	Chipping Sparrow	-	-	S5B, S3N	
Vireo olivaceus	Red eyed Vireo	-		S5B	S
Contopus virens	Eastern Wood- Pewee	SC	SC	S4B	S
Carpodacus mexicanus	House Finch	-	-	SNA	S

¹Federal Species at Risk Act (THR = Threatened, SC = Special Concern); ²Ontario Endangered Species Act (THR = Threatened, SC = Special Concern); ³Ontario S-Rank (S4 = Apparently Secure, S3 = Vulnerable, S2 = Imperiled, B = Breeding Population, N = Non-Breeding Population); ⁴Breeding Evidence (X = Observed, S = Singing male present).

APPENDIX G

LANDSCAPING AND PLANTING PLAN

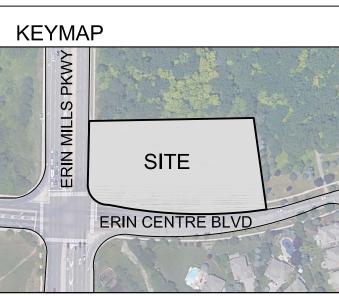




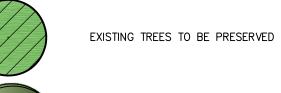
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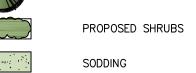
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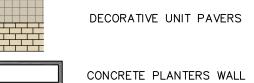












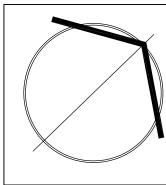
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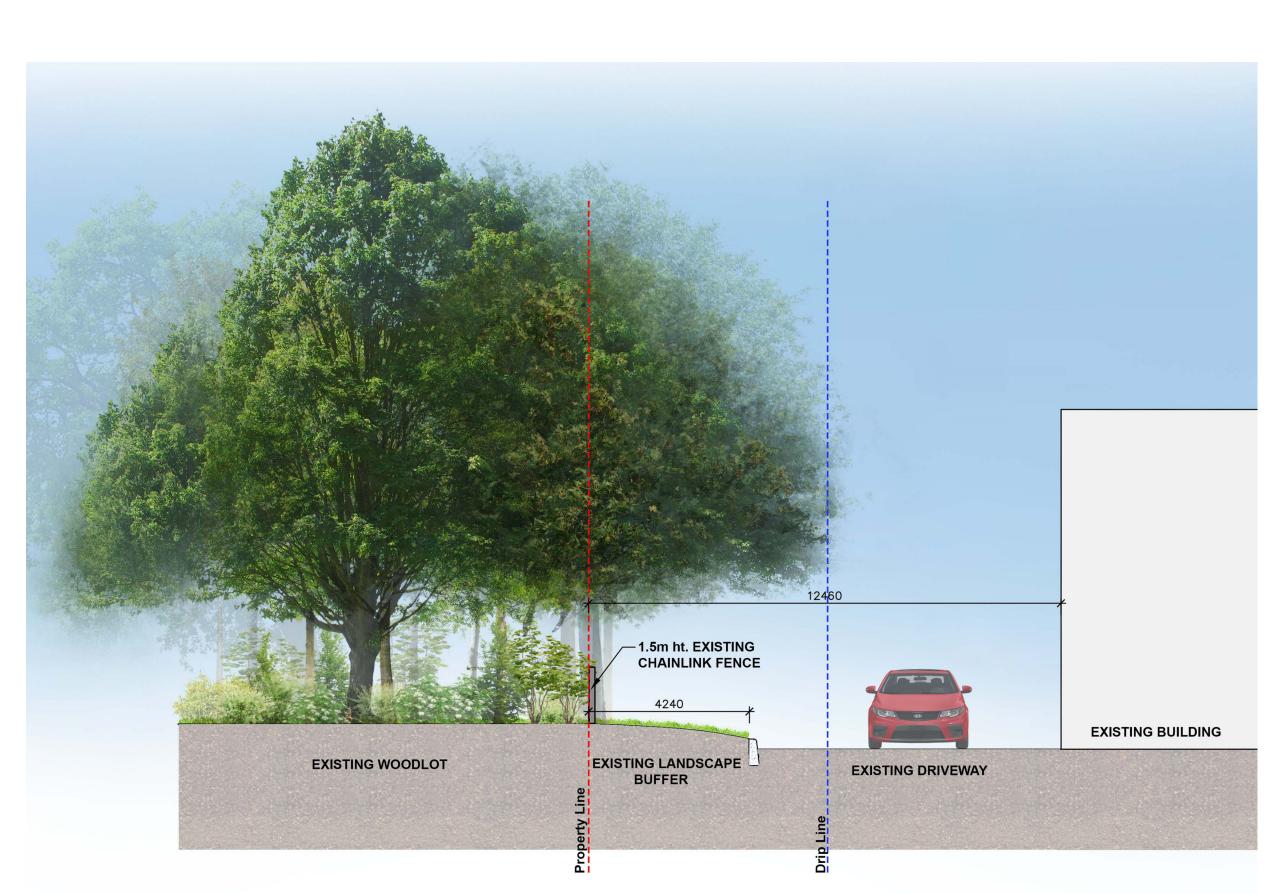
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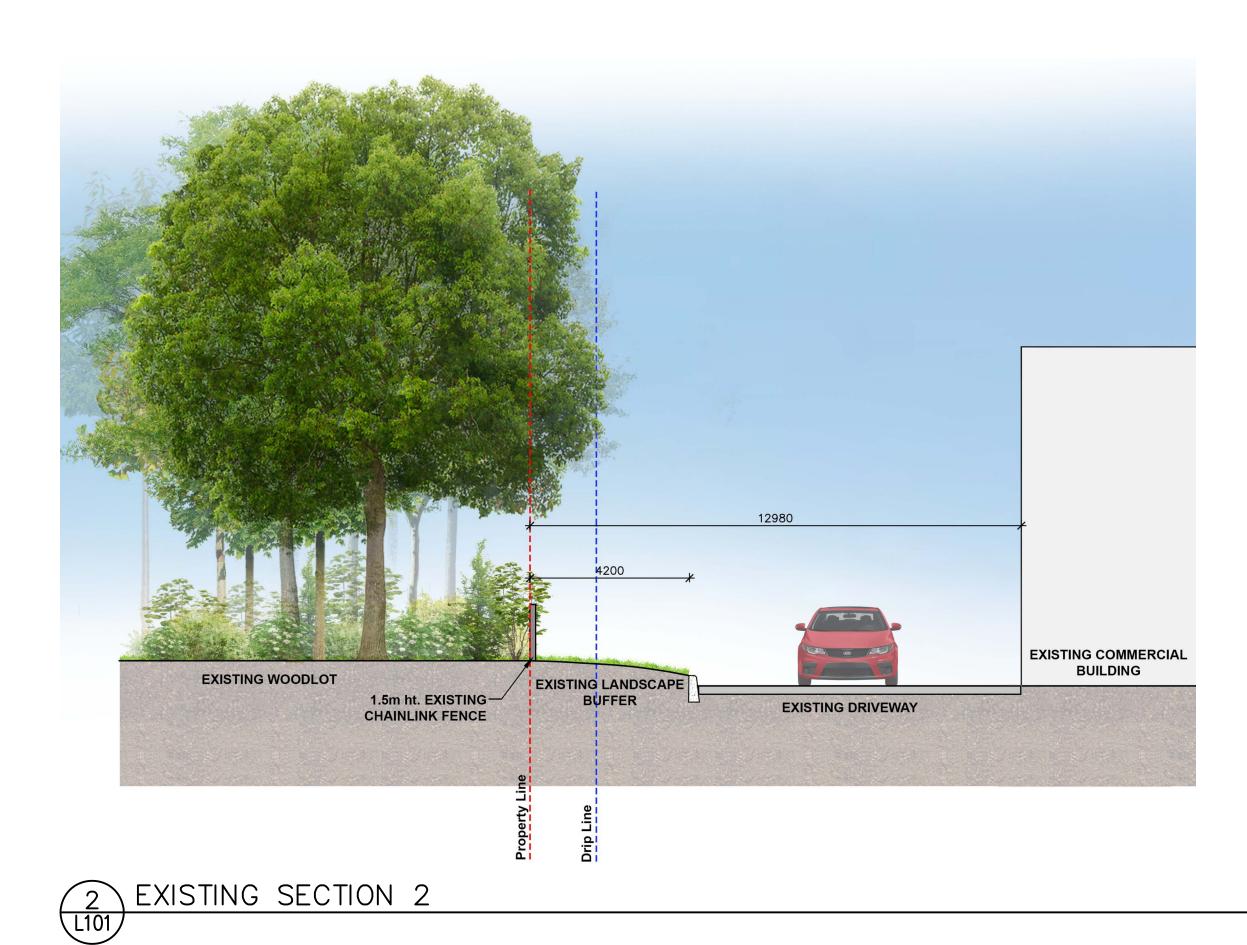
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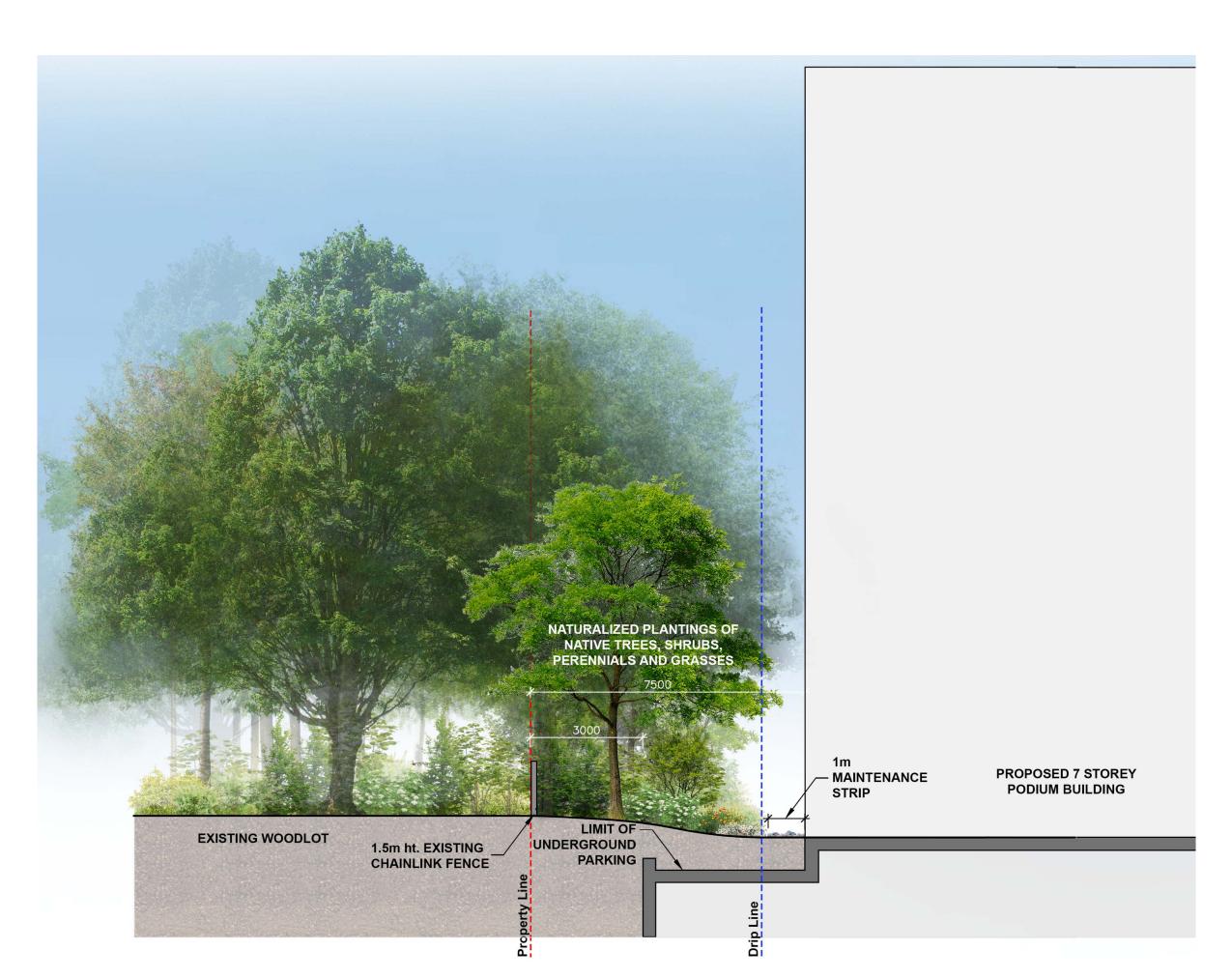
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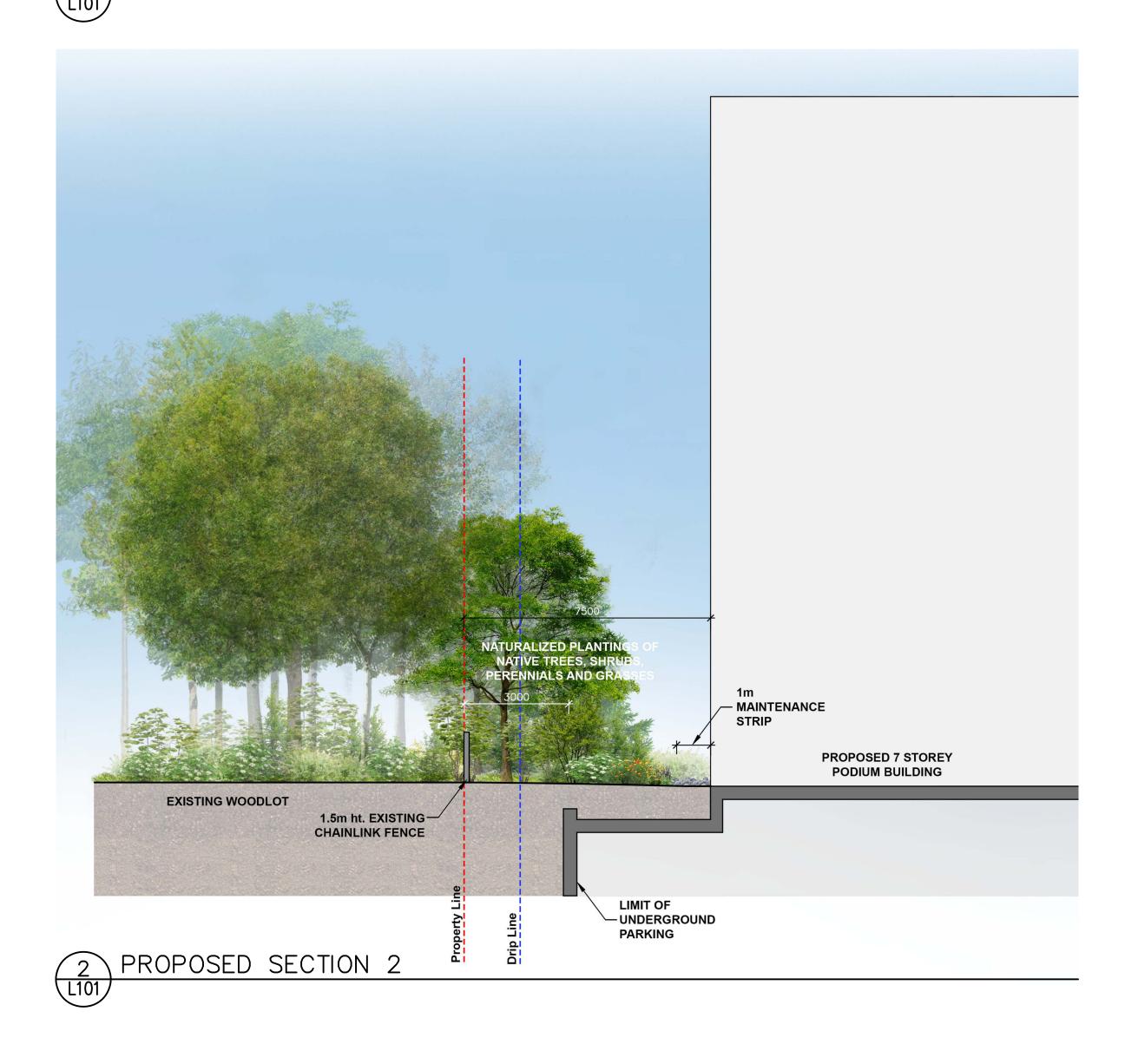






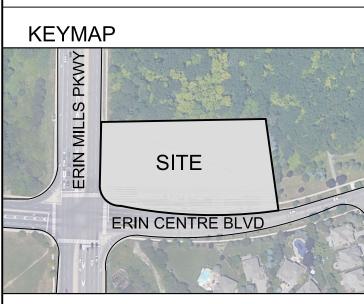


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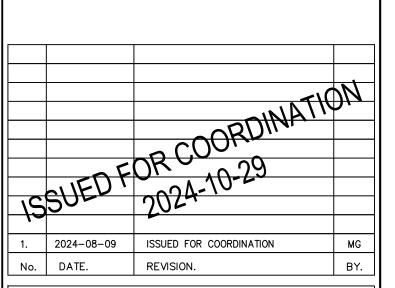


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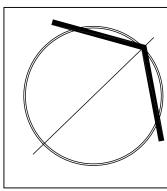
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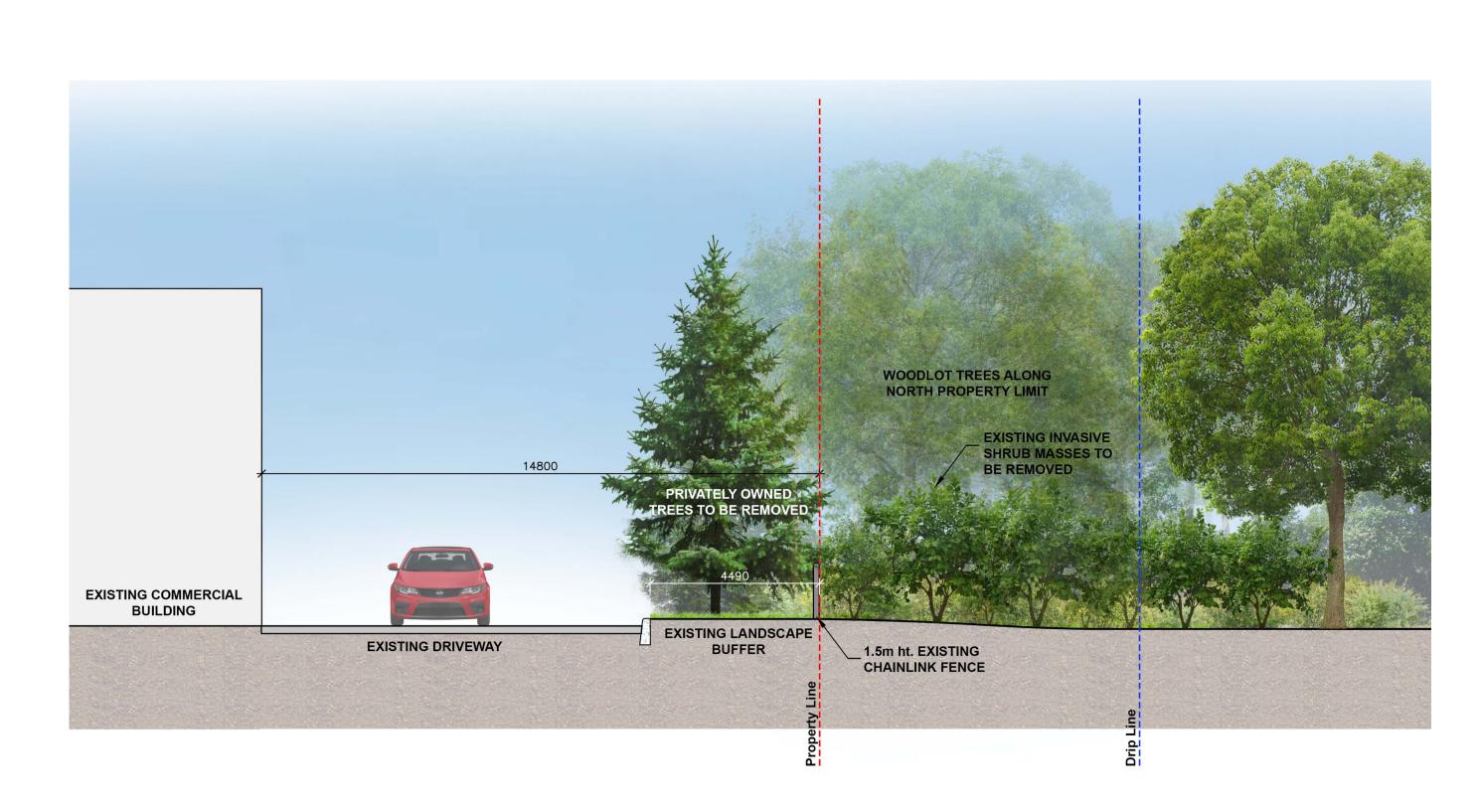
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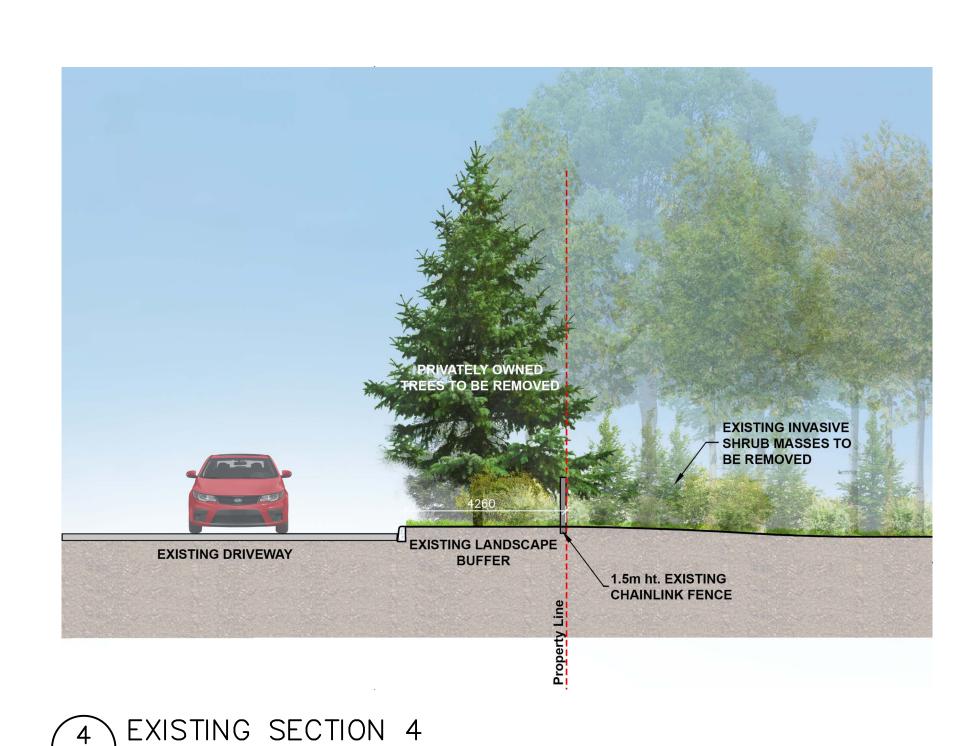
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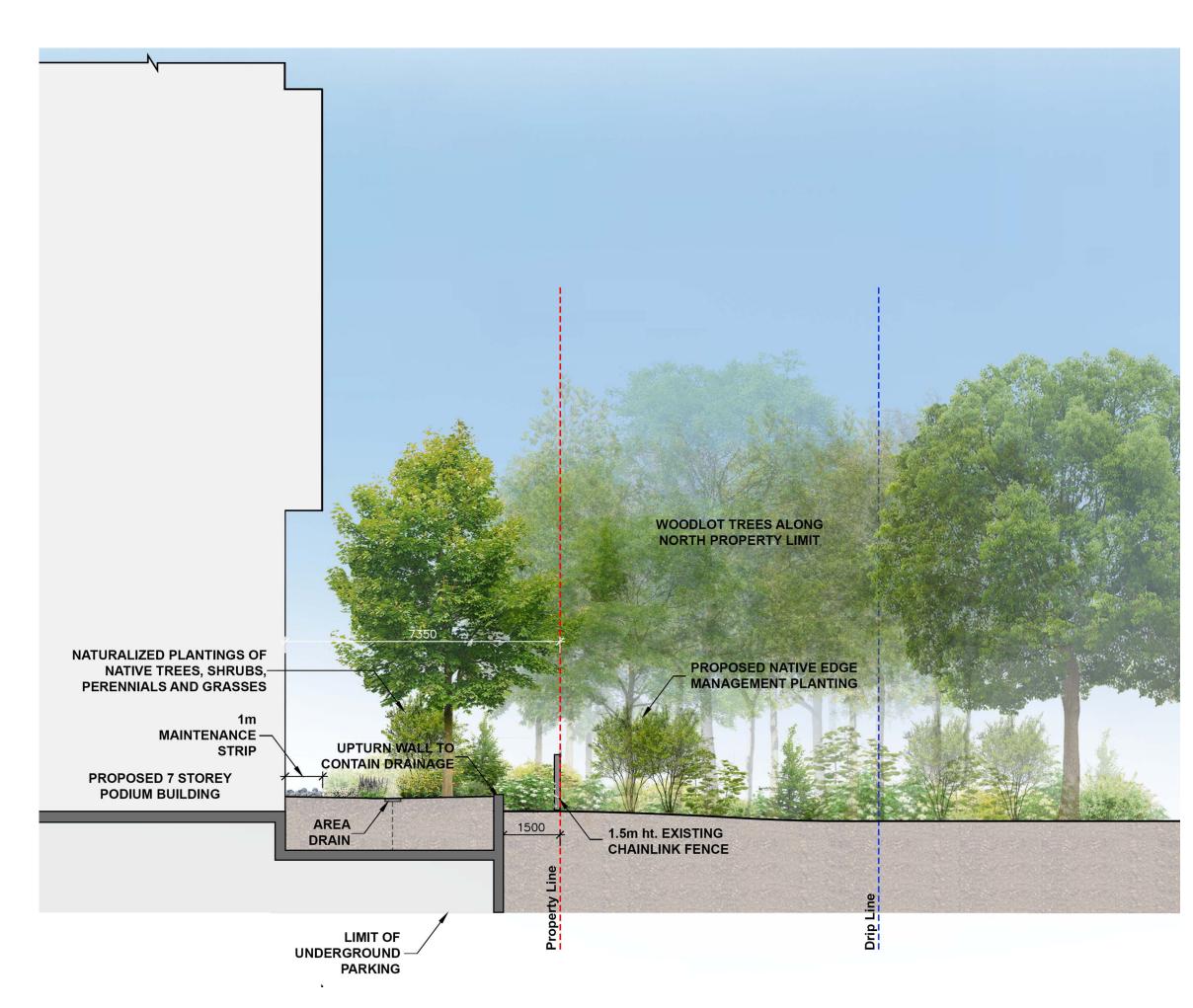
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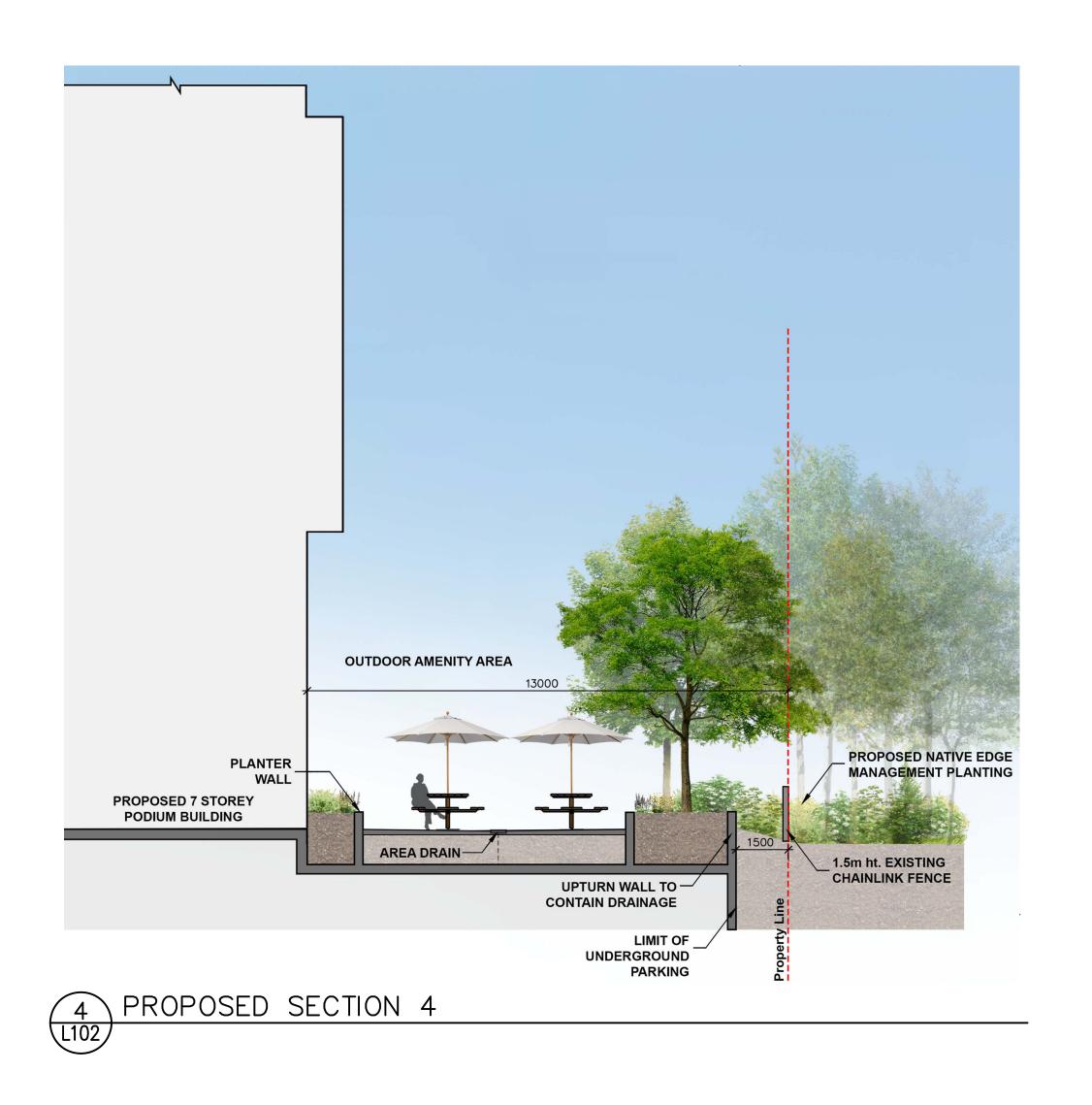








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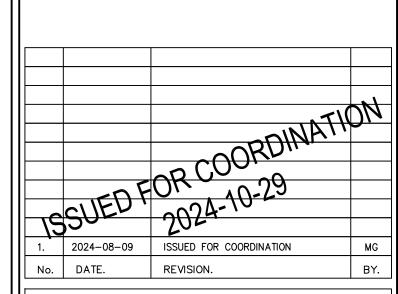




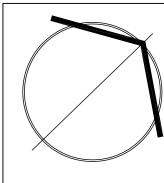
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