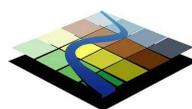




SCOPED NATURAL HERITAGE EVALUATION

Subdivision and Rezoning Applications
181 Toronto Street South, Township of Uxbridge
5 April 2022



TERRASTORY
environmental consulting inc.

Scoped Natural Heritage Evaluation

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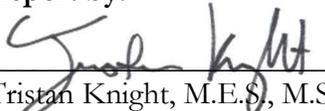
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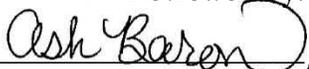
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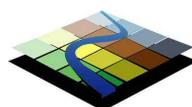

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Project No.: 21016
5 April 2022

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Notwithstanding the determinations of tree health and structural integrity made herein (e.g., good, fair, poor), it must be recognized that all trees (in good health or otherwise) have the potential for failure given adverse weather, damage due to mechanical injury, or other factors that cause stress.

Notwithstanding any recommendations concerning tree preservation or removal made herein, this report does not supersede or expunge any civil or common law property rights as they pertain to shared/boundary trees or trees occurring on adjacent properties. This report does not confirm tree ownership nor authorize the client to encroach or enter onto adjacent properties to destroy or injure trees situated on adjacent properties without the owner's consent.



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1 INTRODUCTION

1.1 Study Background

Terrastory Environmental Consulting Inc. (hereinafter “Terrastory”) was retained by Mr. Sam Arabi (hereinafter “the Applicant”) to prepare this Scoped Natural Heritage Evaluation (NHE) in support of a development application at 181 Toronto Street South (hereinafter “Subject Property”) in the Township of Uxbridge (hereinafter “Township”). The Subject Property is an approximately 0.302 hectare (0.746 acre) vacant lot of record on the east side of Toronto Street South just north of Elgin Park Drive. The development application considered herein consists of a rezoning and subdivision application to facilitate the construction of two separate semi-detached buildings each with five (5) residential units each on municipal servicing. The development is also subject to site plan control. Existing ecological conditions are represented by open meadow vegetation surrounded by scattered trees and shrubs. The location of the Subject Property within its broader landscape setting is shown in **Figure 1**.

The Subject Property is designated “Residential Area” per Schedule A (Land Use and Transportation Plan – Uxbridge Urban Area) of the Township’s Official Plan (OP) and is zoned Residential First Density (R1) per Zoning By-Law No. 81-19. The Subject Property occurs within a designated Settlement Area (i.e., Uxbridge Urban Area) pursuant to the policies of the Oak Ridges Moraine Conservation Plan (ORMCP). Owing to the presence of the Provincially Significant Uxbridge Brook Wetland Complex (hereinafter “PSW”) on Adjacent Lands to the east, development within the Subject Property is regulated by the Lake Simcoe Region Conservation Authority (LSRCA).

The Applicant pre-consulted with Township and LSRCA staff and received preliminary comments in December 2020. A second pre-consultation meeting was held on 16 August 2021. A supporting Tree Preservation Plan (TPP) and Scoped NHE were requested as part of the complete application. The Scoped NHE and TPP are provided herein.

1.2 Study Purpose

The purpose of this study is to present a biophysical characterization of the Subject Property and Adjacent Lands as a means to assess the potential for adverse effects on the natural environment and natural heritage features stemming from the proposed development applications. The scope and approach of this study address the requirements of Subsection 23 of the ORMCP. It is understood that this report will form part of the development application package(s) to be submitted for consideration by the Township, Regional Municipality of Durham (hereinafter “the Region”), and LSRCA.

2 APPROACH AND METHODS

This study is composed of five (5) discrete components which are bulleted below and further described in the following sections.

1. **Acquire background biophysical information and mapping** available for the local landscape surrounding the Subject Property (see **Section 2.1**).

2. **Conduct a site assessment and tree inventory** to field-verify the accuracy of the acquired background biophysical information and collect additional biophysical and tree-related information as necessary (see **Section 2.2**).
3. **Assess the significance** of the biophysical information collected and natural features identified within the context of applicable natural heritage and environmental policies (see **Section 2.3**).
4. **Predict the effects** of the application on the identified significant natural features and natural environment, particularly the net effects once mitigation measures and technical recommendations are implemented (see **Section 2.4**).
5. **Determine whether the proposed application addresses applicable natural heritage and environmental policies** at municipal, provincial, and federal levels (see **Section 2.5**).

2.1 Background Biophysical Information Assessment

This study is supported by background biophysical information and mapping acquired and reviewed from a variety of sources which are listed below in **Table 1**.

Table 1. Background Biophysical Information Acquired and Reviewed.

Type of Information Acquired	Description
Ortho-rectified Aerial Photographs	<ul style="list-style-type: none"> • 2005, 2009, 2016, 2017, 2019.
Natural Feature Mapping	<ul style="list-style-type: none"> • Township of Uxbridge Official Plan (January 2014) Schedules A and B. • Regional Municipality of Durham Official Plan (2020) Schedules A and B. • Land Information Ontario (LIO) accessed via MNRF’s “Make a Map” web-based platform (accessed 3 June 2021). • Lake Simcoe Region Conservation Authority (LSRCA) regulation mapping (accessed 3 June 2021). • Environmental Impact Study (Saleville Property) by Dillon Consulting (2016). • Uxbridge Downtown Flood Reduction Class EA – Existing Environmental Conditions Report by Geomorphic Solutions (2012).
Physiographic Resource Mapping and Datasets	<ul style="list-style-type: none"> • Topographic Survey of the Subject Property. • Ontario Base Mapping produced by MNRF (1:10,000) with 5 m contours. • Ontario Well Records (publicly-available). • The Soils of Ontario County (Olding et al. 1956). • Agricultural Information Atlas (accessed 19 June 2021). • Bedrock Topography and Overburden Thickness Mapping (Gao et al. 2006). • Paleozoic Geology of Southern Ontario (Armstrong and Dodge 2007). • Surficial Geology of Southern Ontario (Ontario Geological Survey 2010). • Physiography of Southern Ontario (Chapman and Putnam 1984).
Ecological Resource Mapping and Datasets	<ul style="list-style-type: none"> • Natural Heritage Information Centre (NHIC) database accessed via MNRF’s “Make a Map” web-based platform (squares: 17NH085, 17NH5084, 17NH5083, 17NH5185, 17NH5184, 17NH5183, 17NH5985, 17NH5984, 17NH5983; accessed 3 June 2021). • iNaturalist “(NHIC) Rare species of Ontario” project (accessed 3 June 2021). • iNaturalist “Herps of Ontario” project (accessed 3 June 2021). • iNaturalist “Ontario Odonata” project (accessed 3 June 2021).

Type of Information Acquired	Description
Natural Heritage Objectives and Strategies	<ul style="list-style-type: none"> • Ontario Breeding Bird Atlas (OBBA) database and the Atlas of the Breeding Birds of Ontario, 2001–2005 (Cadman et al. 2007) (square: 17PJ48, 17PJ58). • Ontario Herp Atlas database (square: 17PJ48; accessed 3 June 2021). • Butterfly Atlas database (square: 17PJ48; accessed 3 June 2021). • Aquatic Species at Risk Maps by Fisheries and Oceans Canada (accessed 3 June 2021). • Atlas of the Mammals of Ontario (Dobbyn 2005). <ul style="list-style-type: none"> • Great Lakes Conservation Blueprint for Terrestrial Biodiversity, Volume 2 (Henson and Brodribb 2005). • Great Lakes Conservation Blueprint for Aquatic Biodiversity, Volume 2 (Phair et al. 2005).

2.2 Site Assessment and Surveys

The acquired background information per **Table 1** helped direct a site assessment carried out by Terrastory staff (T. Knight, Senior Ecologist/President and ISA certified Arborist) on 12 March 2021. A second site visit was undertaken on 10 July 2021 to prepare a plant list for the Subject Property and record incidentally-observed wildlife. The site assessments centred on characterizing the land use (e.g., historical development patterns, existing built features, land maintenance, etc.), physiographic (e.g., topography, drainage, surface water features, etc.), and ecological (e.g., vegetation, wildlife, habitats, etc.) conditions and features of the Subject Property and (where appropriate) Adjacent Lands (i.e., those within 120 m of the Subject Property). All land-use, physiographic, and ecological information described for Adjacent Lands was collected from either current aerial photographs or observations from inside the Subject Property and/or publicly-accessible areas (e.g., rights-of-way, etc.). The locations and boundaries of significant natural features and/or habitats were recorded on-site with a high-accuracy GPS (Mesa II) supported by representative photographs. The data collected to date is reflective of a late winter site assessment which was undertaken in the context of previous project timelines.

In addition to collecting general biophysical information, the following targeted assessments (i.e., feature- or species-specific surveys) were undertaken:

- **Tree Inventory and Health Assessment:** Trees within or directly adjacent to the Subject Property and measuring 10 cm diameter at breast height (DBH) or greater were inventoried by an ISA-certified Arborist. Trees situated on adjacent private properties near the proposed areas of disturbance were reviewed as necessary and to the extent possible from areas in which access was granted. All assessed trees were: (1) labeled using metal number-stamped tags, (2) identified to species, (3) measured at breast-height (approximately 1.37 metres above ground) with calipers and/or DBH tape, (4) assessed for crown diameter, and (5) assessed for risk features, indicators of decline, and growth constraints (e.g., open wounds, live crown ratio, disease, etc.). The tree health and structural assessment was undertaken consistent with accepted arboricultural techniques. None of the assessed trees were cored, probed, or climbed, nor were their roots exposed for detailed assessment. As the tree inventory was undertaken during leaf-off, certain indicators of tree health and structural integrity (e.g., live crown ratio, etc.) could not be assessed.
- **Vegetation Community Mapping according to Ecological Land Classification (ELC):** Vegetation communities on the Subject Property were characterized and mapped according to

Ecological Land Classification (Lee et al. 1998) and the 2008 update to the Vegetation Type List (Lee 2008). Vegetation communities were initially identified based on current aerial photographs and then verified and refined (as necessary) on-site. ELC mapping was scaled to the finest level of resolution deemed appropriate (i.e., either Ecosite or Vegetation Type).

2.3 Significance Assessment

2.3.1 Definitions and Criteria

“Significant natural features” as described herein represent natural features and habitats that have recognized status (and therefore policy significance) within the planning jurisdiction in which an application is proposed. Significant natural features are defined herein to include all Key Natural Heritage Features (KNHFs) and Key Hydrologic Features (KHF) referenced in Sections 2.2 and 2.6 (respectively) of the ORMCP, namely:

- Wetlands;
- Habitat of endangered and threatened species;
- Fish habitat;
- Areas of natural and scientific interest (life science);
- Significant valleylands;
- Significant woodlands;
- Significant wildlife habitat (including habitat of special concern species);
- Sand barrens, savannahs, and tallgrass prairies;
- Permanent and intermittent streams;
- Kettle lakes; and
- Seepage areas and springs.

Defining “significant natural features” pursuant to the ORMCP is considered warranted herein as such features are also considered through the Township’s OP and will concurrently address overlapping natural heritage requirements pursuant to the 2020 Provincial Policy Statement (PPS). It is noted that Township and Regional OPs provide provisions that consider and/or protect additional natural features beyond the requirements of the ORMCP and PPS. The potential presence of these regionally/locally significant features are also considered herein and include:

- Significant Woodlands (as defined by the Regional OP) that are greater than 10 ha, which are considered Environmental Constraint Areas per Section 2.3.3.2 the Township’s OP;
- Locally Significant Woodlands (i.e., those between 4 and 10 ha) which are considered Environmental Potential Areas per Section 2.3.3.3 of the Township’s OP;
- Waterbodies and online ponds, excluding any stormwater management (SWM) facilities which are considered Environmental Constraint Areas per OP s. 2.3.3.2; and
- Proximity linkages between Environmental Constraint Areas and Environmental Potential Areas where deemed appropriate by the Township.

Buffers to KNHFs and KHF's are also considered part of the Township's NHS.

Criteria used to determine the presence or absence of the above significant natural features within the Subject Property and Adjacent Lands were considered from a variety of sources including the local and Regional OPs, Natural Heritage Reference Manual (MNR 2010a), and (for Significant Wildlife Habitat) the Ecoregion 6E Criteria Schedule (MNRF 2015).

Apart from ORMCP-derived significant natural features, this study also seeks to determine whether any natural features or hazards regulated by LSRCAs pursuant to O. Reg. 179/06 occur within the Subject Property and/or Adjacent Lands. LSRCAs regulated features and hazard lands include:

- Wetlands (significant, evaluated, or identified);
- Watercourses and their associated meanderbelts and floodplains;
- Valleylands;
- Steep slopes and other hazard lands; and
- Shorelines.

Like significant natural features, "significant species" represent individuals of wild species which have recognized status (and therefore policy significance) within the planning jurisdiction in which an application is proposed. Significant species are defined herein to include:

- Species designated Endangered, Threatened, or Special Concern under O. Reg. 230/08 pursuant to the provincial *Endangered Species Act, 2007*.
- Species designated Provincially Rare (i.e., S1, S2, or S3) by NHIC.
- Species considered Regionally Rare in Durham Region pursuant to the Distribution and Status of the Vascular Plants of the Greater Toronto Area (Varga et al. 2005).

2.3.2 Determination

After collecting the background biophysical information and conducting the late winter site assessment, the data was interpreted to determine whether any significant natural features (i.e., KNHFs and KHF's), natural features/hazards regulated by LSRCAs, and/or significant species occur on the Subject Property and/or Adjacent Lands. If a natural feature or species met the significance criteria, it is considered "confirmed". If a natural feature or species may be present on the Subject Property and/or Adjacent Lands given the prevailing biophysical or habitat conditions but was not confirmed based on either background or site-specific biophysical data, it is considered potential or "candidate". Candidate significant natural features and species are treated as confirmed where no additional information is available.

2.4 Effects Assessment and Mitigation

The potential ecological effects of an application can be understood spatially as zones that radiate outward from the direct project footprint (e.g., building envelope, etc.) and associated areas of site alteration (e.g., grading, etc.). While the greatest potential for effects typically occurs within areas directly subject to development or disturbance, surrounding areas may also be affected indirectly. Such indirect effects can include light or noise pollution that affects wildlife communities on Adjacent Lands, or degradation of water quality within a downstream receptor resulting from sediment runoff during construction.

The following five-pronged approach is employed herein to assess the effects of an application on significant natural features and species and (where warranted) the natural environment in general:

1. **Scope** the effects assessment to environmental components that warrant consideration. The effects assessment herein centres principally on significant natural features and species (i.e., those that have policy significance within the planning jurisdiction, as defined in **Section 2.3**) but may also consider general environmental effects where warranted.
2. **Identify the predicted direct and indirect effects** of the application on each significant natural feature or species during all project stages (i.e., pre- to -post-development) in the absence of mitigation. Direct effects are those where there is a cause-effect relationship between a proposed activity and an effect on a natural feature or species (e.g., tree clearance within a building footprint, etc.). Indirect effects result when an activity is linked to a direct effect through a chain of foreseeable interactions or steps.
3. **Evaluate the significance** of the predicted effects for each environmental component based on their attributes (i.e., spatial extent, magnitude, timing, frequency, and duration) and likelihood (i.e., high, medium, low).
4. Where the potential for negative effects are anticipated, **recommend ecologically-meaningful mitigation measures** to avoid such impacts first (where possible), and where impacts cannot be avoided to minimize, compensate, and/or enhance as appropriate.
5. **Identify the predicted residual or net effects** of the application assuming implementation of all recommended mitigation measures.

Per step 4, mitigation measures are offered where the potential for negative effects are anticipated to a degree that cannot be supported given the prevailing policy context. Whenever possible, Terrastory works iteratively with the project team as a means to identify development plan options that avoid negative effects first; options that would minimize or mitigate such negative effects are less preferred and considered secondarily. In general, avoidance measures that have already been incorporated into the application or project design are not duplicated as technical recommendations herein. The effects assessment and any recommended mitigation measures are provided in **Section 5**.

2.5 Natural Heritage Policy Context

There is an overlapping municipal, provincial, and federal policy framework respecting the protection of natural heritage features and areas across southern Ontario. These requirements include objectives, policies, and directives which are principally contained in federal and provincial statutes, regulations, policy statements, Official Plans, and guidance documents. The overarching natural heritage policy framework directing development activities within the Subject Property is outlined below in **Table 2**. A determination of whether the application considered herein addresses such policies is provided in **Section 6**.

Table 2. Applicable Natural Heritage Policies.

Level of Government	Natural Heritage or Environmental Policy Requirements
Municipal	Township of Uxbridge Official Plan (January 2014 office consolidation). Regional Municipality of Durham Official Plan (May 2020 office consolidation).

Level of Government	Natural Heritage or Environmental Policy Requirements
Provincial	<p data-bbox="391 268 1230 296">Provincial Policy Statement 2020, pursuant to the <i>Planning Act</i>, R.S.O. 1990, c. P.13, including:</p> <ul data-bbox="440 310 1398 470" style="list-style-type: none"> <li data-bbox="440 310 1398 367">• Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005 (MNR 2010a). <li data-bbox="440 373 1101 401">• Significant Wildlife Habitat Technical Guide (MNR 2010b). <li data-bbox="440 407 1300 434">• Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF 2015). <li data-bbox="440 441 1182 468">• Significant Wildlife Habitat Mitigation Support Tool (MNRF 2014). <p data-bbox="391 485 1414 541">Oak Ridges Moraine Conservation Plan 2017, pursuant to the Oak Ridges Moraine Conservation Act, S.O. 2001, c. 31, including:</p> <ul data-bbox="440 556 824 583" style="list-style-type: none"> <li data-bbox="440 556 824 583">• ORMCP Technical Paper Series. <p data-bbox="391 600 1321 627">Lake Simcoe Protection Plan 2009, pursuant to the <i>Lake Simcoe Protection Act</i>, S.O. 2008, c. 23, including:</p> <ul data-bbox="440 653 1406 709" style="list-style-type: none"> <li data-bbox="440 653 1406 709">• Technical Definitions and Criteria for Identifying Key Natural Heritage Features and Key Hydrologic Features for the Lake Simcoe Protection Plan. <p data-bbox="391 743 1365 770">Growth Plan for the Greater Golden Horseshoe 2019, pursuant to the Places to Grow Act, S.O. 2005, c. 13.</p> <p data-bbox="391 804 906 831"><i>Conservation Authorities Act</i>, R.S.O. 1990, c. C.27, including:</p> <ul data-bbox="440 846 1406 940" style="list-style-type: none"> <li data-bbox="440 846 1406 903">• Ontario Regulation 179/06 – Lake Simcoe Region Conservation Authority Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation. <li data-bbox="440 909 1398 936">• LSRCA Guidelines for the Implementation of Ontario Regulation 179/06 (June 1, 2020). <p data-bbox="391 953 873 980"><i>Endangered Species Act</i> (ESA), S.O. 2007, c. 6, including:</p> <ul data-bbox="440 995 1110 1052" style="list-style-type: none"> <li data-bbox="440 995 1110 1022">• Ontario Regulation 230/08 – Species at Risk in Ontario List. <li data-bbox="440 1029 878 1056">• Ontario Regulation 242/08 – General. <p data-bbox="391 1073 889 1100"><i>Fish and Wildlife Conservation Act</i>, S.O. 1997, c. 41.</p>
Federal	<p data-bbox="391 1136 781 1163"><i>Fisheries Act</i>, R.S.C. 1985, c. F-14, including:</p> <ul data-bbox="440 1178 1143 1205" style="list-style-type: none"> <li data-bbox="440 1178 1143 1205">• Fish and Fish Habitat Protection Policy Statement (DFO 2019). <p data-bbox="391 1230 883 1257"><i>Migratory Birds Convention Act</i>, S.C. 1994, c. 22, including:</p> <ul data-bbox="440 1272 943 1299" style="list-style-type: none"> <li data-bbox="440 1272 943 1299">• Migratory Birds Regulations, C.R.C., c. 1035.

3 EXISTING BIOPHYSICAL CONDITIONS

The following is a description of the biophysical features and conditions of the Subject Property, which are shown spatially on **Figure 2**. Representative photographs are provided in **Appendix 1**.

3.1 Land-use and Landscape Setting

The Subject Property is situated within the community of Uxbridge north of the intersection of Toronto Street South and Elgin Park Drive. Parcels immediately adjacent to the Subject Property contain condominium and single detached residences and amenity space, while the surrounding landscape consists of a mixture of residential areas, natural features (mostly treed swamp), and “main street” commercial land uses.

3.2 Physiographic Setting

The Subject Property is largely flat and sits between approximately 277-279 metres above sea level (masl). The topographic apex is situated within a central plateau while the topographic low is associated with a surface water drainage feature (“ditch”) along the southern boundary of the Subject Property. The Subject Property is mapped as containing sandy deposits associated with glaciofluvial and glaciolacustrine deposition near the terminus of the Pleistocene ice age (Ontario Geological Survey 2010).

The identified “ditch” conveys flow onto the Subject Property through an approximately 20 cm wide corrugated steel pipe (CSP) culvert. The ditch terminates at a retaining wall in the southeast corner of the Subject Property (see **Figure 2**); no culvert or other crossing structure was identified at the downstream end of the ditch. A stand of Common Reed (*Phragmites australis* ssp. *australis*) has emerged at the retaining wall where the ditch terminates.

3.3 Ecological Setting

3.3.1 Vegetation Communities

Two (2) vegetation communities have been mapped from the Subject Property. Treed portions of the Subject Property are represented by a Manitoba Maple-dominated woodland (WODM5-3). Beyond the woodland is a mixed meadow containing Red Fescue (*Festuca rubra*), Dog-strangling Vine (*Vincetoxicum rossicum*), Tall Goldenrod (*Solidago altissima*), and scattered regenerating Manitoba Maple and Trembling Aspen (*Populus tremuloides*).

3.3.2 Trees

A total of 77 trees situated within or adjacent to the proposed area of disturbance were inventoried and assessed. The full results of the tree inventory and health assessment are provided in **Appendix 2**. The locations of all trees assessed are shown in **Figure 2**. A brief description of the overall tree composition and conditions observed is provided below and in **Table 3**.

While some of the on-site trees were found to have been correctly geolocated on the property survey (Barich Grenkie Surveying Ltd.), certain trees appeared to be inaccurately positioned and represented generic locations of existing vegetation. This is particularly true for the eastern portion of the lands. Terrastory has provided more accurate positioning of several tree locations (particularly for trees #939-967) with a GPS unit (i.e., non-survey grade) per **Figure 2**.

Manitoba Maple (*Acer negundo*) is the dominant tree species present within the Subject Property and comprises 74% of the trees assessed. Many of the Manitoba Maple are in poor condition owing to weak multi-stem attachments, lean, and/or copious epicormic shoots. The remaining 10 tree species assessed are represented by a small number (1-5) of individuals each. While many of the Manitoba Maple trees appear to represent natural colonization of the Subject Property, some of the trees assessed (e.g., White Spruce, etc.) appeared to have been planted. Trees #911 and #976, both of which are Ginkgo (*Ginkgo biloba*), appear to be municipal plantings situated in the road allowance.

Table 3. Composition and Abundance of Trees within and/or adjacent to the proposed Areas of Development and Disturbance.

Species	Total Assessed	Percentage of Total (%)
Black Walnut (<i>Juglans nigra</i>)	4	5.2
Common Apple (<i>Malus pumila</i>)	1	1.3
Eastern White Cedar (<i>Thuja occidentalis</i>)	2	2.6
European Mountain-ash (<i>Sorbus aucuparia</i>)	1	1.3
Freeman’s Maple (<i>Acer x freemanii</i>)	1	1.3
Ginkgo (<i>Ginkgo biloba</i>)	2	2.6
Manitoba Maple (<i>Acer negundo</i>)	57	74
Scots Pine (<i>Pinus sylvestris</i>)	1	1.3
Sugar Maple (<i>Acer saccharum</i>)	2	2.6
White Elm (<i>Ulmus americana</i>)	1	1.3
White Spruce (<i>Picea glauca</i>)	5	6.5
TOTAL	77	~100

3.3.3 Vascular Plants

A total of 47 vascular plant species were recorded within the Subject Property (see **Appendix 3**). No species at risk vascular plants were documented.

Culver’s Root (*Veronicastrum virginicum*) was documented in the northern portion of the Subject Property. This species is considered provincially rare (S2) and is generally restricted to relatively high-quality, undisturbed meadows/prairies, riverbanks, and open woodlands in extreme southwestern Ontario (e.g., Essex County, Lambton County, Chatham-Kent). This species is also commonly planted in gardens and is known to spread into adjacent natural areas in southern Ontario. The individuals documented within the Subject Property have undoubtedly originated from plantings in the local landscape and therefore are not considered suitable candidates of conservation interest.

3.3.4 Incidental Wildlife

A variety of common, urban bird species were recorded during the 10 July 2021 site assessment. This includes Northern Cardinal (*Cardinalis cardinalis*), Song Sparrow (*Melospiza melodia*), European Starling (*Sturnus vulgaris*), and Mourning Dove (*Zenaida macroura*).

4 SIGNIFICANCE ASSESSMENT

Based on the biophysical information collected during background information gathering (per **Table 1**) and the results of Terrastory’s site assessment (per **Sections 2.2** and **3**), **Table 4** below provides a determination of the presence (or potential presence) of each significant natural feature considered herein. Shaded rows denote features which were confirmed or may be present within the Subject Property or Adjacent Lands and are considered further as part of the effects assessment in **Section 5**. Significant natural feature mapping is provided in **Figure 3**.

Table 4. Summary of the Assessment of Significant Natural Features on the Subject Property and Adjacent Lands.

Significant Natural Feature	Status on the Subject Property	Status on Adjacent Lands (i.e., < 120 m from the Subject Property)
ORMCP Significant Natural Features		
Wetlands	Absent. See Section 4.1.	Confirmed. See Section 4.1.
Habitat of Endangered and Threatened Species (per ESA)	Absent. See Section 4.2.	Candidate. See Section 4.2.
Fish Habitat (per <i>Fisheries Act</i>)	Absent. See Section 4.3.	Confirmed. See Section 4.3.
Significant Areas of Natural and Scientific Interest	Absent.	Absent.
Significant Valleylands	Absent. See Section 4.4.	Confirmed. See Section 4.4.
Significant Woodlands	Absent. See Section 4.5.	Confirmed. See Section 4.5.
Significant Wildlife Habitat	Absent. See Section 4.6.	Confirmed/Candidate. See Section 4.6.
Sand Barrens, Savannahs, and Tallgrass Prairies	Absent.	Absent.
Permanent and Intermittent Streams	Absent. See Section 4.7.	Present. See Section 4.7.
Kettle Lakes	Absent.	Absent.
Seepage Areas and Springs	Absent.	Unknown.
Locally Significant Natural Features		
Environmental Constraint Area Significant Woodland	Absent. See Section 4.5.	Absent. See Section 4.5.
Environmental Potential Area Significant Woodland	Absent. See Section 4.5.	Confirmed. See Section 4.5.
Waterbodies and Online Ponds	Absent.	Absent.
Linkages between Environmental Constraint Areas and Environmental Potential Areas	Absent.	Absent.
Conservation Authority Regulated Features and Hazard Lands		
Wetlands, watercourses, valleylands, meanderbelts, floodplains, steep slopes, and shorelines.	Absent. See below.	Confirmed. See below.

4.1 Wetlands

A natural area east of the Subject Property contains the Uxbridge Brook Headwater Wetland Complex. A variety of wetland communities have been mapped by MNRF to date within the PSW including hardwood swamp, dead tree swamp, and thicket swamp.

An assessment of potential effects to the PSW associated with implementation of the proposed development plan is provided in **Section 5.2.1**.

4.2 Habitat of Endangered and Threatened Species

An assessment of the likelihood that any Endangered and Threatened species or their habitats occur within the Subject Property or Adjacent Lands is provided in **Appendix 4**. A total of three (3) Endangered or Threatened species are considered to have at least a possible likelihood of being impacted by the proposed development plan given their habitat associations and current distribution in southern Ontario:

- 1) Little Brown Myotis (*Myotis lucifugus*)
- 2) Northern Myotis (*Myotis septentrionalis*)
- 3) Tri-colored Bat (*Perimyotis subflavus*)

A general description of each Endangered/Threatened species and their habitat is offered below. An assessment of potential effects to these Endangered/Threatened species associated with the proposed development plan is provided in **Section 5.2.2**.

4.2.1 Bats

Per the assessment in **Appendix 4**, Little Brown Myotis, Northern Myotis, and Tri-colored Bat have the potential to roost and forage on the Subject Property. Each of these bat species are designated Endangered in Ontario per O. Reg. 230/08 pursuant to the *Endangered Species Act* (ESA) and are federally designated Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Little Brown Myotis and Northern Myotis form maternity colonies that roost in large-diameter trees with cracks, crevices, and/or exfoliating bark; Little Brown Myotis will also frequently roost in buildings (e.g., attics, barns, etc.). Roosting sites for Tri-colored Bat maternity colonies are less understood but have been documented in dead or dying leaf clusters of oaks (*Quercus* spp.) and maples (*Acer* spp.), along with live foliage and buildings (Humphrey and Fotherby 2019). Individuals (i.e., non-reproductive females and males) of all three bat species may roost in smaller diameter trees and other spaces (e.g., beneath house siding, etc.) which are not occupied by maternity colonies. Overwintering habitat includes caves and mines that maintain temperatures above 0°C. White Nose Syndrome (a fungal disease caused by an introduced pathogen) has devastated populations of each species across their ranges. The fungus causes hibernating individuals to become dehydrated, leading to excessive arousal, depleted fat reserves, and ultimately emaciation and/or death.

While most of the trees within the Subject Property have a low potential to support *Myotis* bats given their small size and lack of cracks, cavities, and/or other features that could support roosting, a few of the larger trees (#922, etc.) may provide suitable roosting habitat for bat maternity colonies. It is further noted that individual bats (e.g., males and non-reproductive females) can be found roosting in a variety of different tree sizes/conditions and are less restricted to larger-diameter trees with obvious crevices.

4.3 Fish Habitat

Uxbridge Brook flows in a predominantly northerly direction approximately 80 m east of the Subject Property. Based on available background information (e.g., Geomorphic Solutions 2012) it is understood that 18 species of fish have been documented in Uxbridge Brook, including Brook Trout (*Salvenius fontinalis*) and Sculpin (*Cottidae* spp.).

An assessment of potential effects to fish habitat associated with the proposed development plan is provided in **Section 5.2.4**.

4.4 Significant Valleylands

The natural area to the east which is associated with Uxbridge Brook appears to exhibit a distinct valleyland morphology. In the absence of more detailed information pertaining to this natural area (which is wholly on Adjacent Lands), it is assumed that a Significant Valleyland is present.

An assessment of potential effects to the Significant Valleyland associated with the proposed development plan is provided in **Section 5.2.3**.

4.5 Significant Woodlands

The woodland east of the Subject Property, which includes treed upland and wetland communities, measures approximately 4.30 ha in size and (owing to its greater than 20 m separation from other woodlands) is not considered contiguous with adjacent woodlands. As the woodland is between 4 and 10 ha, it qualifies as a Locally Significant Woodland (Environmental Potential Area) per the Township's OP. This woodland is also considered significant in the context of the ORMCP as it has a minimum average width of 40 metres and is greater than 4 ha per ORMCP Technical Paper Series #7.

Per the vegetation community mapping in **Figure 2**, a Manitoba Maple dominated deciduous woodland is present within the Subject Property. This feature is relatively open, highly disturbed, and <0.35 ha (including any minor extension onto Adjacent Lands). This feature is not considered significant in the context of Township OP, Regional OP, or ORMCP policies.

An assessment of potential effects to the Significant Woodland on Adjacent Lands to the east associated with the proposed development plan is provided in **Section 5.2.3**.

4.6 Significant Wildlife Habitat

An assessment of the likelihood that any candidate or confirmed SWH types occur within the Subject Property or Adjacent Lands is provided in **Appendix 5**. The results of this assessment has confirmed the potential presence of several SWH types that may be associated with the natural area associated with Uxbridge Brook to the east. This includes:

- Seasonal Concentration Areas of Animals
 1. Bat Maternity Colonies
 2. Turtle Wintering Areas
 3. Colonially - Nesting Bird Breeding Habitat Breeding Habitat (Tree/Shrubs)
- Rare Vegetation Communities or Specialized Habitats for Wildlife
 4. Waterfowl Nesting Area
 5. Woodland Raptor Nesting Areas
 6. Amphibian Breeding Habitat (Wetlands)
- Habitat of Species of Conservation Concern
 7. Terrestrial Crayfish
 8. Special Concern and Rare Wildlife Species
- Animal Movement Corridors
 9. Amphibian Movement Corridors

Also based on this assessment, a total of nine (9) Special Concern or provincially rare species are considered to have at least a possible likelihood of occurrence in the local landscape (particularly the natural area to the east) given their habitat associations and current distribution in southern Ontario:

- 1) Canada Warbler (*Cardellina canadensis*)
- 2) Eastern Wood-pewee (*Contopus virens*)
- 3) Wood Thrush (*Hylocichla mustelina*)
- 4) Monarch (*Danaus plexippus*)
- 5) Yellow-banded Bumblebee (*Bombus terricola*)
- 6) Eastern Ribbonsnake (*Thamnophis sauritus sauritus*)
- 7) Snapping Turtle (*Chelydra serpentina*)
- 8) Western Chorus Frog (*Pseudacris triseriata*)
- 9) Schweinitz's Sedge (*Carex schweinitzii*)

An assessment of potential effects to the candidate/confirmed SWH types on Adjacent Lands to the east associated with the proposed development plan is provided in **Section 5.2.3**.

4.7 Key Hydrologic Features

Uxbridge Brook contains fish habitat (per **Section 4.3**) and is therefore expected to be a permanent watercourse. This surface water feature appears to extend no closer than 80 m from the northeast corner of the Subject Property.

5 EFFECTS ASSESSMENT AND MITIGATION

The purpose of this Scoped NHE is to present a biophysical characterization of the Subject Property and Adjacent Lands as a means to identify the potential for adverse effects on the natural environment and natural heritage features stemming from the proposed rezoning and subdivision applications. Several significant natural features and species were documented (or may occur) in the area pursuant to the assessments in **Section 3.3.3**. The following effects assessment provides an evaluation of the potential for the proposed application and subsequent development of the lots to result in negative effects to such environmental components and offers technical recommendations to mitigate such effects where warranted. Certain technical recommendations offered herein apply to several natural features and/or species simultaneously; as such, all technical recommendations should be read and considered in their entirety. The baseline or existing conditions against which the application is assessed are treated as the state of the Subject Property at the time of the site assessment. The effects assessment herein is based on the design drawings provided in **Appendix 6**.

5.1 Proposed Development Plan

The proposed development and site alteration activities consist of the following elements:

- Creation of ten (10) lots for semi-detached dwellings.
- A single laneway entrance to the site (6 m wide) from Toronto Street South with individual driveway connections for each lot.
- Walkway connections to the sidewalk on Toronto Street South.
- Water meter room in the northeast corner of the lands.
- Municipal water and wastewater servicing connections at Toronto Street South.
- Infiltration chambers (for storage and infiltration).

5.2 Feature-based Effects Assessment and Technical Recommendations

5.2.1 Wetlands

Where development and/or site alteration activities are proposed adjacent to wetlands, adverse effects may occur via the following pathways:

- Alterations to surface water and/or groundwater contributions to the wetland from construction (e.g., dewatering, etc.), grading that modifies the existing topography or drainage, and/or increased coverage of impervious surfaces (e.g., roads, roofs, etc.);
- Increased sediment loadings and/or nutrient enrichment within the wetland via runoff exiting from development areas during and post construction. This may alter wetland water quality and vegetation communities via increased turbidity, eutrophication, contamination by toxic substances, changes in pH, etc.
- Noise and/or light pollution that may adversely affect the ability of wetland wildlife to successfully carry out their life processes (e.g., breeding, feeding, etc.); and
- Increased human activity (i.e., encroachment) within the wetland which may result in soil compaction, dumping, etc.

As described in **Section 4.1**, the Provincially Significant Uxbridge Brook Wetland Complex occurs on Adjacent Lands to the east. This feature forms part of a broader natural area that is considerably set back from the Subject Property and separated by an existing road (Fred Barnard Way). Based on a review of the existing topographic contours, much of the Subject Property appears to drain towards either Toronto Street South or a swale along the southern property boundary (i.e., away from the PSW) which terminates at a retaining wall. The limited overland runoff conveyed northeastward towards PSW is expected to be intercepted and controlled by stormwater controls along Fred Barnard Way. Existing PSW mapping indicates that the wetland is no closer than 51 m from the northeast corner of the Subject Property. It is further noted that stormwater runoff within the proposed lots will be controlled by a rear-yard infiltration gallery.

During construction it is anticipated that the proposed development areas will contain exposed soils, which are inherently unstable and have a greater potential for runoff into adjacent areas (including adjacent wetlands) during rainfall events. The most effective erosion and sediment control system emphasizes the prevention of erosion first, minimizes sediment transport off-site through a multi-barrier approach, and involves regular inspection and maintenance. An Erosion and Sediment Control Plan (Counterpoint Engineering) has also been prepared as part of the application to control construction-related runoff.

Overall, the above conditions and mitigation measures incorporated directly into the application indicate that potential impacts to the adjacent PSW anticipated as part of implementing the proposed development plan are negligible.

5.2.2 Habitat of Endangered and Threatened Species

Per the assessment in **Appendix 4** a total of three (6) Endangered Bat species are considered to have a possible likelihood of occurrence on the Subject Property given their habitat associations and current distribution in southern Ontario:

- 1) Little Brown Myotis (*Myotis lucifugus*)

- 2) Northern Myotis (*Myotis septentrionalis*)
- 3) Tri-colored Bat (*Perimyotis subflavus*)

The Subject Property may provide roosting opportunities to the above-noted bats. While there is relatively limited roosting opportunities for maternity colonies for *Myotis* bats (which are associated with larger-diameter trees containing cavities or crevices), males or non-reproductive females are more generalist in their roosting requirements and could use a variety of trees on-site. It is also noted that Tri-colored Bat roosts in dead-leaf clusters of maple trees, which are dominant on-site (Manitoba Maple).

The following recommendations are provided to avoid potential impacts on Endangered bats.

- **Any necessary tree removal within the proposed development envelopes will only take place between October 1 and April 30 to avoid the active season for bats. Should minor tree removal be required between May 1 and September 31, a qualified professional will complete an exit survey of suitable maternal roosting sites identified for removal a maximum of 24 hours before removal. The exit survey must make use of a bat detector and will occur for no less than the time period between sunset and 60 minutes after sunset. If an Endangered bat is identified during the survey, MECP should be contacted to obtain further direction prior to removal of the tree.**
- **If construction activities occur during the active bat season (i.e., May 1 and September 31), work will be restricted to daylight hours only and the use of artificial lighting will be avoided.**
- **Any lighting incorporated into the final building designs should be directed downward (i.e., towards the ground) and/or away from the adjacent woodlot (i.e., directed eastward) to the extent practicable.**

5.2.3 Significant Woodland, Significant Valleyland, and Significant Wildlife Habitat

Where development and/or site alteration activities are proposed adjacent to forests or woodlands, adverse effects may occur via the following pathways:

- Mechanical injury to the trunk, roots, branches, and/or foliage of retained woody vegetation.
- Soil compaction from the use of heavy machinery.
- Smothering or exposure of roots due to changes in grade.
- Noise and/or light pollution that may adversely affect the ability of woodland wildlife to successfully carry out their life processes (e.g., breeding, feeding, etc.).
- Increased human activity (i.e., encroachment) within or adjacent to the woodland which may result in soil compaction, dumping, etc.

As described above, the Significant Woodland, Significant Valleyland, and candidate/confirmed SWH are associated with a natural area flanking Uxbridge Brook to the east of the Subject Property. The limit of contiguous natural vegetation (i.e., dripline) associated with this natural area extends no closer than 30 m from the northeast corner of the property. As such, no development or site alteration is proposed within the minimum VPZ of these overlapping KNHFs. Further, the natural

area is also separated from the Subject Property by a road (Fred Barnard Way) and recently constructed townhouse development. This setback, coupled with implementation of the Erosion and Sediment Control Plan (Counterpoint Engineering), is considered sufficient to avoid impacts to these KNHF types.

5.2.4 Fish Habitat and Permanent Watercourse

Where development and/or site alteration activities are proposed adjacent to watercourses that support (or are assumed to support) fish and/or aquatic organisms, adverse effects may occur via the following pathways (amongst others):

- Alterations to surface water and/or groundwater contributions to the watercourse from construction (e.g., dewatering, etc.), grading that modifies the existing topography or drainage, and/or increased coverage of impervious surfaces (e.g., roads, roofs, etc.);
- Increased sediment loadings and/or nutrient enrichment within the watercourse via runoff exiting from development areas during and post construction. This may alter water quality and/or degrade habitat quality via increased turbidity, eutrophication, contamination by toxic substances, changes in pH, etc.
- Introduction of invasive species including aquatic organisms and aquatic plants.
- Increased human activity (i.e., encroachment) in the vicinity of the watercourse which may result in bank compaction, exploitation of fish, dumping, etc.

As described in **Section 4.3**, Uxbridge Brook occurs approximately 80 m northeast of the Subject Property. This setback is considered sufficient to protect associated fish and aquatic habitats, provided that the Erosion and Sediment Control Plan (Counterpoint Engineering) is implemented in full.

5.2.5 Other Natural Environment Considerations

While the recommendations offered herein restrict development activities from all significant natural heritage features, some vegetation removal (i.e., woody and herbaceous vegetation) is required to facilitate development. To further minimize potential adverse effects to the natural environment and breeding birds during construction, the following measures are recommended:

- **All necessary vegetation removal (e.g., trees, meadow vegetation, etc.) will be completed outside the primary bird nesting period (i.e., to be completed between September 1 and March 31). Should minor vegetation removal be proposed during the bird nesting period, a bird nesting survey will be undertaken to confirm the presence or absence of nesting birds or bird nests within or adjacent to the areas subject to vegetation clearance. The survey is to take place within 48 hours of vegetation removal.**

The proposed development plan involves grading to the northern property limit (i.e., at 179 Toronto Street). The installation of silt fence along the property line will sever/injure the root systems of boundary trees (i.e., trees along a property line with shared ownership) and neighbouring trees (i.e., trees occurring entirely on an adjacent property). Four (4) boundary/neighbouring trees requiring removal (due to extensive root severance which will adversely affect structural stability and short/long-term health) given the proposed development plan include Trees #902-905. A further

one (1) neighbouring tree (#932) will be subject to root injury (but can be retained). It is further noted that Trees #911, #976, and #977 (proposed for removal) appear to be situated in the road allowance and are therefore municipal assets.

The following measures are recommended to address expected impacts to the identified boundary/neighbouring trees:

- **Root-sensitive excavation techniques (either pneumatic excavation, hydro-vac excavation, or hand-digging) will be employed within the areas shown during sediment fence installation and prior to the commencement of grading or machine excavation. The excavated trench will be approximately 30 cm deep and 15 cm wide to expose roots at the limit of disturbance. root-sensitive excavation and subsequent backfilling to secure the sediment fence will be undertaken on the outside edge of the Tree Protection Zone only.**
- **Following root exposure, a qualified arborist will supervise the root cutting procedures and examine if any excessive or large structural roots require cutting. all exposed tree roots will be severed cleanly in accordance with standard arboricultural practices. Loss of structural roots may necessitate removal of the subject tree, to be determined by the on-site qualified arborist.**
- **The Applicant must secure approval to impact shared and boundary trees from relevant property owners (179 Toronto Street South) prior to construction.**

6 APPLICABLE NATURAL HERITAGE AND ENVIRONMENTAL POLICIES

The following sections summarize the various municipal, provincial, and federal environmental policies that may apply to the proposed development plan and describe how the recommendations provided in this study will address these policies (where applicable).

6.1 Township of Uxbridge Official Plan (office consolidation January 2014)

The Township's OP is a legal document prepared as required under section 14.7(3) of the *Planning Act*. An OP sets out goals, objectives, and policies that direct and manage land-use and future development activities and their effects on the social and natural environment of a municipality. Provincial plans that offer direction on matters of provincial interest (e.g., Greenbelt Plan, etc.) are implemented principally through the Township's OP. Provided herein is a description of relevant environmental and natural heritage policies contained within the Township's OP and an assessment of whether the application addresses such policies.

The Subject Property is situated within the Uxbridge Urban Area per Schedule A of the Township's OP and is wholly designated "Residential Area". Uxbridge Urban Area Secondary Plan policies are provided in Section 2 of the OP. Sections 1.9, 2.1.6, and 2.3.5 carries forward the requirements of the ORMCP, which are reviewed in greater detail in **Section 6.4**.

The Township's NHS policies are provided in Section 2.3 of the OP. Key components of the NHS include:

- i. Natural Hazard Area;
- ii. Environmental Constraint Area and Environmental Potential Area;
- iii. Environmental Buffer Area; and,
- iv. ORM Key Natural Heritage and Hydrologically Sensitive Features.

Section 2.3.2 identifies **Natural Hazard Area** lands as being comprised of floodplains. There are no Natural Hazard Area overlays within the Subject Property per Schedules A and B of the OP.

The **Environmental Constraint Area** designation represents features identified by LSRCA as being critical components of the Lake Simcoe NHS. Environmental Constraint Area components include:

- a) Provincially Significant Wetlands (PSWs);
- b) Significant Woodlands as defined in the Regional Official Plan that are greater than 10 ha in size;
- c) Significant Habitat of Endangered or Threatened Species;
- d) Significant valleylands;
- e) Watercourses, excluding drains, and
- f) Waterbodies and online ponds, excluding any stormwater management facilities.

Per Clause 2.3.3.2(iv), development and site alteration are generally not permitted within Environmental Constraint Areas or their Vegetation Protection Zones except in restricted circumstances.

Environmental Potential Areas are shown on Schedule B of the OP and include significant components of the Lake Simcoe NHS. Environmental Potential Areas include:

- a) identified wetlands of greater than 0.5ha in size;
- b) woodlands between 4ha and 10ha in size;
- c) significant valleylands;
- d) significant wildlife habitat;
- e) confirmed Provincial Life Science Areas of Natural and Scientific Interest (ANSIs);
- f) fish habitat; and
- g) proximity linkages between Environmental Constraint Areas and Environmental Potential Areas where deemed appropriate by the Township.

Per Clause 2.3.3.3(iii), development and site alteration are generally not permitted within Environmental Potential Areas or their Vegetation Protection Zones unless it can be demonstrated through an EIS that no feature encroachment is proposed and no negative impacts to the form and function of the feature are anticipated.

Environmental Buffer Areas are established around KNHFs and KHF's designated as Environmental Constraint Area or Environmental Potential Area. Environmental Buffer Area lands are established to minimize conflict between human uses and adjacent sensitive features and also to provide an appropriate setback during development activities.

The Township's ORM KNHF and KHF policies are provided in Section 2.3.5.2, which are considered further herein in **Section 6.4**.

The rezoning and subdivision application considered herein addresses relevant Township OP requirements for the following reasons:

- Natural Hazard Areas are absent from the Subject Property per Schedule A (floodplain is restricted to the adjacent Uxbridge Brook natural area to the east).
- Environmental Constraint Areas are absent from the Subject Property per Schedule A (PSW is present within the Uxbridge Brook natural area to the east).
- While the boundary of a mapped Significant Woodland extends slightly into the southwest corner of the Subject Property (along with its associated Vegetation Protection Zone) per Schedule B, this feature appears to have been removed as part of constructing the adjacent townhouse development along Fred Barnard Way. Overall, Environmental Potential Areas are absent from the Subject Property.
- The application addresses relevant OMRCPP policies as they pertain to the protection of KNHFs and KHFs, as described in **Section 6.4**.
- An Erosion and Sediment Control Plan has been prepared by Counterpoint Engineering which will limit sediment-laden runoff from entering any downgradient receptors such as Uxbridge Brook and the associated PSW.
- Infiltration galleries are proposed for the rear yards which will control stormwater runoff.

Based on the preceding discussion, it is concluded that the proposed development plan appropriately addresses the natural heritage protection provisions of the Township's OP.

6.2 Regional Municipality of Durham Official Plan (consolidation May 26, 2021)

A list of key provisions from the Region's OP that pertain to the protection of natural heritage features and areas are provided below.

- Section 2 provides the Regional "Environmental" policy framework.
 - Section 2.3.15 restricts development and site alteration in key natural heritage and/or hydrologic features, including any associated vegetation protection zone, with minor exceptions.
- Section 10 provides the Regional Greenlands System policies.
 - Policy 10.3.1 identifies the components of the Greenlands Systems as shown on Schedule A and directs that the boundaries of such components be mapped per Section 15 (Interpretation).

The Regional Greenlands System does not extend onto the Subject Property, which is situated within a designated Living Area (i.e., Uxbridge Settlement Area) per Schedule A. Notwithstanding this, a KNHF overlaps with portions of the Subject Property per Schedule B. It is expected that this KNHF mapping reflects the "Significant Woodland" identified and mapped in Schedule B of the Township's OP. This feature appears to have been removed as part of constructing the townhouse development along Fred Barnard Way. As such, neither the Regional Greenlands System nor any KNHFs/KHFs/VPZs extend onto the Subject Property.

Overall, Regional natural heritage policies are generally consistent with the Township's policies as described in **Section 6.1**. It is concluded that the proposed development plan appropriately addresses the natural heritage protection provisions of the Regional OP.

6.3 Provincial Policy Statement 2020, pursuant to the Planning Act, R.S.O. 1990, c. P. 13

The Provincial Policy Study (PPS) is promulgated under the authority of the *Planning Act* and came into effect on 1 May 2020. The PPS provides direction to municipalities on land-use matters of provincial interest and sets the policy framework for regulating the use and development of land. Municipal OP's must be consistent with the PPS. Per its preamble, the PPS *provides for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment.*

The principal PPS policies that apply to natural heritage protection are outlined in section 2.1. While recognizing that the natural heritage protection framework is not intended to limit the ability of agricultural uses to continue (Policy 2.1.9), the PPS instructs that *natural features and areas shall be protected for the long term* (Policy 2.1.1) and that their diversity and connectivity be *maintained, restored or, where possible, improved* (Policy 2.1.2). In Ecoregions 6E and 7E the PPS separates significant features into three categories:

- 1) Those in which development and site alteration are not permitted, including 1) Provincially Significant Wetlands and 2) Significant Coastal Wetlands (Policy 2.1.4);
- 2) Those in which development and site alteration are not permitted unless it can be demonstrated that no negative impacts on the significant natural feature and/or its functions will occur, including: 1) Significant Woodlands, 2) Significant Valleylands, 3) Significant Wildlife Habitat, 4) Significant Areas of Natural and Scientific Interest, 5) Non-significant Coastal wetlands, and 6) Adjacent Lands (Policy 2.1.5 and 2.1.8).
- 3) Those in which development and site alteration are not permitted except in accordance with federal/provincial requirements, including: 1) fish habitat (Policy 2.1.6) and 2) habitat of Endangered and Threatened Species (Policy 2.1.7).

In considering the aforementioned PPS policies, it has been determined that the proposed development plan addresses relevant natural heritage provisions of the PPS for the following reasons:

- Per **Table 4** of this report, Significant Areas of Natural or Scientific Interest are absent from the Subject Property and Adjacent Lands.
- Per **Table 4** of this report, while several PPS Significant natural features occur on Adjacent Lands (e.g., PSW, Significant Woodland, Significant Valleyland, SWH, etc.), each of these features are setback from the northeast corner of the Subject Property by >30 m.
- Per **Section 5.2** of this report, no negative impacts to any significant natural features identified on Adjacent Lands is anticipated given implementation of the Erosion and Sediment Control Plan (Counterpoint Engineering).

6.4 Oak Ridges Moraine Conservation Plan 2017, pursuant to the *Oak Ridges Moraine Conservation Act, S.O. 2005, c. 31*

The ORMCP guides land use and resource management decisions across the Oak Ridges Moraine, an approximately 470,000 acre geological feature consisting of rolling hills, kettle lakes, and sandy substrate derived from glacial outwash. The ORMCP provides four land-use designations: 1) Natural Core Areas, 2) Natural Linkage Areas, 3) Countryside Areas, and 4) Settlement Areas. The Subject Property is located within a designated Settlement Area (Uxbridge Urban Area).

The most restrictive natural heritage provisions of the ORMCP are outlined in section 22 (for KNHFs) and section 26 (for KHF's). All development and site alteration are prohibited within KNHFs including their minimum VPZs, apart from certain exceptions including flood or erosion control projects. KNHFs and KHF's are typically afforded a minimum 30 m VPZ.

The ORMCP also provides direction for the completion of Natural Heritage Evaluations and Hydrological Evaluations. Both types of reports are expected to demonstrate that the development and site alteration activities proposed have no adverse effects on any KNHFs and KHF's (including their related ecological functions) and also identify planning/design/construction practices that will maintain (and/or improve) the KNHFs and KHF's. An NHE is also required to demonstrate how connectivity between KNHFs and KHF's will be maintained or (if possible) improved or restored.

The application considered herein is consistent with the ORMCP for the following reasons:

- No development or site alteration are proposed within 30 m (i.e., minimum VPZ) of a KNHF or KHF.
- An Erosion and Sediment Control Plan (Counterpoint Engineering) will be implemented during construction to minimize the potential for release of sediment-laden runoff into downstream receptors.
- A timing restriction on tree/vegetation removal has been established (i.e., no removals between April 1 and September 30) to protect nesting birds and roosting bats.

6.5 Lake Simcoe Protection Plan 2009, pursuant to the *Lake Simcoe Protection Act, S.O. 2008, c. 23*

The Lake Simcoe Protection Plan (LSPP) seeks to address long-term environmental degradation of the Lake Simcoe watershed. Chapter 6 provides targets, indicators, and policies for the protection of shorelines and natural heritage features. The most restrictive natural heritage policies of the LSPP pertain to KNHF's and KHF's that are located outside of designated Settlement Areas and areas within the Greenbelt Plan and Oak Ridges Moraine area. As the Subject Property is situated on the ORM, the natural heritage policies of the ORMCP govern as directed by LSPP Designated Policy 6.20.

6.6 Growth Plan 2019, pursuant to the *Places to Grow Act, S.O. 2005, c. 13*

The Growth Plan provides a framework for growth management across the Greater Golden Horseshoe. Provisions related to the protection of natural heritage features and areas are contained in sections 4.2.2 through 4.2.4.

Policy 4.2.2 authorizes the creation of a Natural Heritage System which is to be incorporated by municipalities as an overlay into their OP schedules. New development or site alteration within the

Natural Heritage System must demonstrate that there will be no negative impacts to KNHF's and KHF's or their functions, and that the connectivity between KNHF's and KHF's located within 240 metres of each other will be maintained or enhanced. New development and site alteration must also consider and avoid other non-significant natural features where possible. **Policy 4.2.2(3)(iv)** further requires that developments within the Natural Heritage System not generate disturbance in excess of 25% of the total developable area, nor create impervious surfaces in excess of 10% of the total developable area.

Policy 4.2.3 prohibits development or site alteration within KNHF's and KHF's within the Natural Heritage System. Certain activities and land-uses are excepted (e.g., wildlife management, flood control projects, infrastructure authorized under an environmental assessment process, etc.), but such exemptions do not apply to the application considered herein. It is noted that expansions to existing buildings and structures are also exempt from the prohibition on development within KNHF's and KHF's, but only where the expansion brings the use into better conformity with the Growth Plan. **Policy 4.2.4** mandates that a vegetation protection zone (VPZ) be established for all identified KNHF's and KHF's, which is a) of sufficient width to protect the feature and its functions from potential impacts, b) is maintained as natural self-sustaining vegetation, and c) is a minimum of 30 m for KHF's, fish habitat, and significant woodlands.

The Subject Property is outside of the provincial NHS and Regional Greenlands system. No KNHF's or KHF's occur within 30 m of the Subject Property.

6.7 Lake Simcoe Region Conservation Authority Regulation 179/06, pursuant to the Conservation Authorities Act, R.S.O. 1990, c. C.27

LSRCA's regulatory jurisdiction includes areas within and adjacent to valley and stream corridors, the Lake Simcoe shoreline, hazard lands (e.g., floodplains, steep slopes, etc.), watercourses, and wetlands as provided under O. Reg. 179/06 of the *Conservation Authorities Act*.

LSRCA regulates development and site alteration activities within 120 m of a PSW. Should the rezoning and subdivision application be approved, construction of the townhouse development considered herein requires a permit/approval from LSRCA under O. Reg. 179/06 to proceed. Notwithstanding this, and as described throughout this report, the application poses negligible potential impacts to the adjacent Uxbridge Brook natural area (including PSW, Significant Woodland, Significant Valleyland, and fish habitat/watercourse) given the considerable setback from the Subject Property and inclusion of an Erosion and Sediment Control Plan to control stormwater during construction.

An on-site review of the "ditch" along the southern property boundary by LSRCA staff may be warranted to confirm regulatory requirements.

6.8 Provincial Endangered Species Act, S.O. 2007, c. 6

The *Endangered Species Act* (ESA) is administered by MECP and protects designated Endangered and Threatened species in Ontario from being killed, harmed, or harassed (s. 9) or having their habitat damaged or destroyed (s. 10). The protection afforded to Endangered and Threatened species "habitat" is either prescribed by O. Reg. 242/08, or (for those species that lack regulated habitat) is defined as *an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding*. Activities that constitute habitat

damage and/or destruction can only proceed subject to requirements of s. 17 or (in limited circumstances) an activity registration under O. Reg. 242/08.

A detailed assessment of potential Endangered and Threatened habitat within the Subject Property is provided in **Appendix 4**. Per this assessment, potential roosting habitat for Endangered bats (Little Brown Myotis, Northern Myotis, and Tri-colored Bat) were documented within the Subject Property. Provided that relevant technical recommendations outlined in **Section 5.2** are implemented in full (particularly a restriction on vegetation removal), it has been determined that the proposed development plan is consistent with the species and habitat protection provisions of the ESA.

6.9 Federal Fisheries Act, R.S.C. 1985, c. F-14

The amended federal *Fisheries Act* (Bill C-68) received Royal Assent in June 2019 while the updated fish and fish habitat protection provisions came into force in August 2019. Subsection 34.4(1) of the amended *Fisheries Act* prohibits all work, undertaking, or activity from causing the death of fish (other than fishing). Subsection 35(1) requires that project activities not result in the “*harmful alteration, disruption or destruction of fish habitat*” (HADD) unless undertaken in accordance with the requirements of a statutory exemption per subsection 35(2). Based on the Fish and Fish Habitat Protection Policy Statement (August 2019), HADD is interpreted by DFO to include “*any temporary or permanent change to fish habitat that directly or indirectly impairs the habitat’s capacity to support one or more life processes of fish*”.

No in-water works or fill placement below the high-water mark of a surface water feature containing fish habitat is proposed through this application. Consistent with the assessment carried out in **Section 5.2.4** and provided that the Erosion and Sediment Control Plan (Counterpoint Engineering) is implemented in full, it has been determined that the proposed development plan is consistent with the fish and fish habitat protection provisions outlined in the *Fisheries Act*.

6.10 Federal Migratory Birds Convention Act, S.C. 1994, c. 22

Section 6 of the Migratory Birds Regulations under the *Migratory Birds Convention Act, 1994* (MBCA) prohibits the disturbance or destruction of nests, eggs, or nest shelters of a migratory bird. The provincial *Fish and Wildlife Conservation Act, 1997* extends the protection of bird nests and eggs to certain species not listed under the Migratory Birds Regulations (e.g., certain Corvids, Strigids, Accipitrids, etc.).

Provided that the recommendations outlined in **Section 5.2.5** are implemented in full (i.e., prohibition on vegetation removal during the bird breeding season), no impacts to breeding birds or bird nests protected by the MBCA or FWCA are anticipated.

7 CONCLUSIONS

The preceding Scoped Natural Heritage Evaluation provides a characterization of the natural environment occurring within and adjacent to 181 Toronto Street South in Uxbridge. This Scoped NHE has been prepared in support of rezoning and subdivision applications which will facilitate a semi-detached townhouse development associated creation of ten (1) residential lots, and to support LSRCA’s regulatory review under O. Reg. 179/06 pursuant to the *Conservation Authorities Act*. Included herein is a comprehensive approach to identifying the presence or absence of several significant natural features afforded varying degrees of protection by applicable environmental

policies. Potential negative impacts to the identified significant natural features are described with mitigation measures and technical recommendations offered to avoid or minimize such impacts as appropriate.

Based on the findings presented in this report, the following natural features with ecological and/or policy significance have been identified:

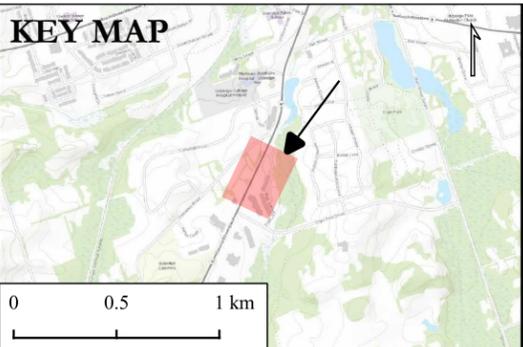
- A natural area to the east of the Subject Property associated with **Uxbridge Brook** contains several overlapping significant features including a **Provincially Significant Wetland, Significant Woodland, Significant Valleyland, candidate/confirmed Significant Wildlife Habitat, and Fish Habitat**.
- The Subject Property provides potential roosting habitat for **Endangered bats** (Little Brown Myotis, Northern Myotis, and Tri-colored Bat).

Based on the presence of the above-mentioned significant natural heritage features, a comprehensive set of recommendations and mitigation measures are offered in **Section 5.2** to achieve “no negative impact” and address applicable municipal, provincial, and federal policies outlined in **Section 6**. It is emphasized that none of the identified significant natural features nor their Vegetation Protection Zones extend onto the Subject Property. An Erosion and Sediment Control Plan (Counterpoint Engineering) will be implemented during construction, while a timing restriction on tree/vegetation removal will be established (i.e., no removals between April and September 30) to protect nesting birds and roosting bats. The proposed development application also incorporates extensive low-impact development measures (e.g., infiltration chambers) to control the quantity and quality of stormwater runoff. Notwithstanding this, impacts to trees which are partly or wholly situated on a neighbouring property (179 Toronto Street South) are anticipated, and approval from relevant owners is required before such trees can be removed or injured.

It has been determined that no negative impacts to the above-noted significant natural features (per the ORCMP and LSPP) will occur and that the application appropriately addresses applicable natural heritage policies provided that all technical mitigation measures identified herein are implemented in full. It is advised that such technical recommendations be incorporated into any necessary development approvals that permit the application.

8 REFERENCES

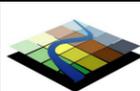
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Legend

Study Area
 Subject Property

GENERAL NOTES:
 -Features depicted herein should not be used in place of a professional survey.
 -Numeric scale is for a 11x17 inch print.



TERRASTORY
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1:1,000 0 10 20 30 m



Location:
 181 Toronto Street South,
 Township of Uxbridge

Project No.: 21016
Date: 2021-06-19
By: TK **Checked:** AB
Orthophotograph Date:
 2018 (SCOOP).

Figure 1:
 Location of the
 Subject Property



Legend

Study Area

Subject Property

Built Structures and Infrastructure

Culvert Outlet

Retaining Wall

Biophysical Conditions - Terrastory

Trees Inventoried

Vegetation Communities

"Ditch"

Significant Natural Features - Agency Identified

Provincially Significant Uxbridge Brook Wetland Complex

Vegetation Community Codes:

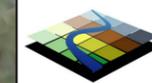
WODM5-3: Fresh-Moist Manitoba Maple Deciduous Woodland

MEMM3: Dry-Fresh Mixed Meadow

GENERAL NOTES:

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-Numeric scale is for a 11x17 inch print.



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1:500

0 5 10 15 m

Location:

181 Toronto Street South,
Township of Uxbridge

Project No.: 21016

Figure 2:

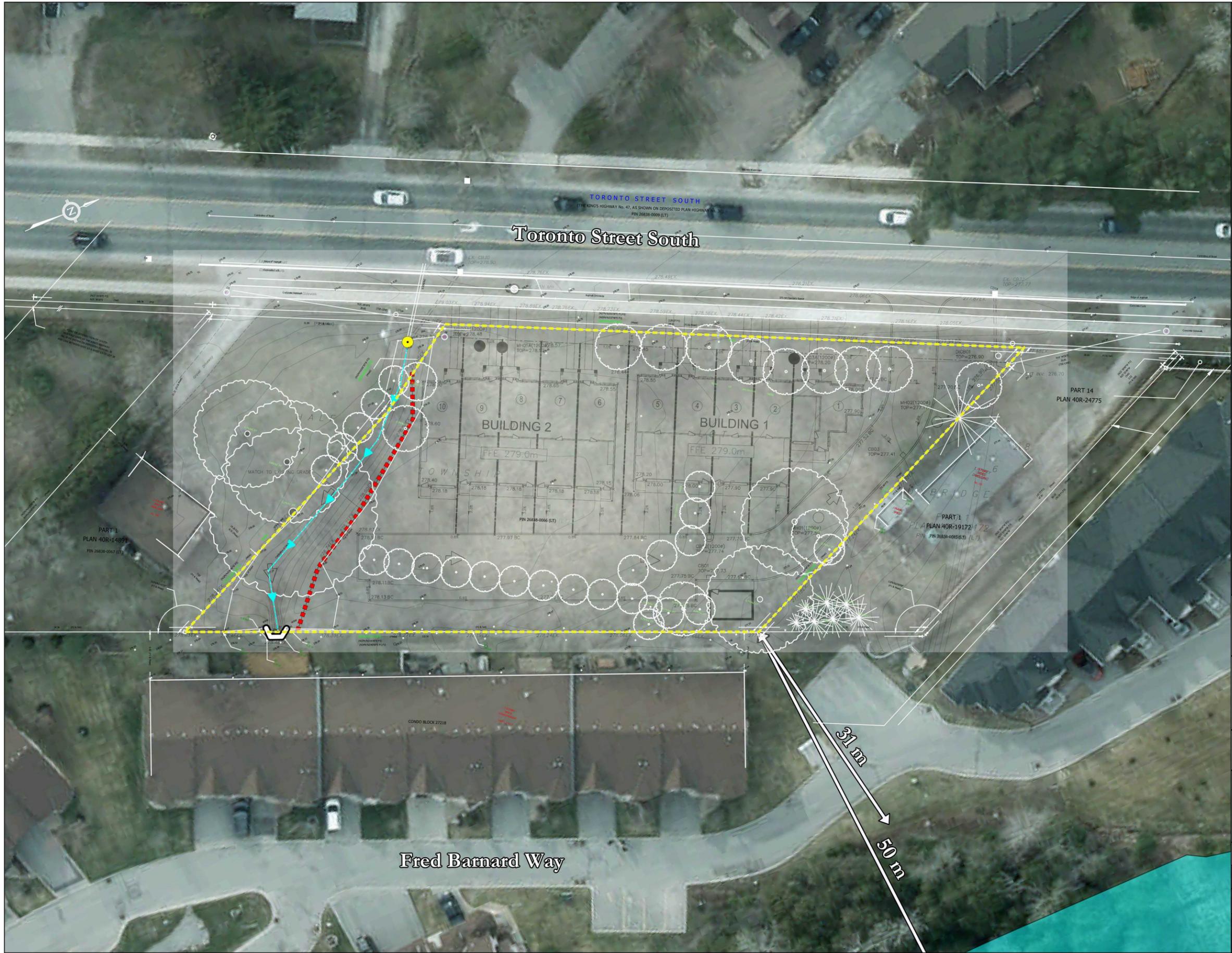
Date: 2022-04-05

By: TK

Checked: AB

Orthophotograph Date:
2018 (SCOOP).

Biophysical
Features and
Conditions



Legend

Study Area

Subject Property

Built Structures and Infrastructure

Culvert Outlet

Retaining Wall

Biophysical Conditions - Terrastory

"Ditch"

Significant Natural Features - Agency Identified

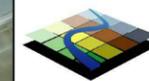
Provincially Significant Uxbridge Brook Wetland Complex

Proposed Activities

Limit of Grading

GENERAL NOTES:

- Features depicted herein should not be used in place of a professional survey.
- Numeric scale is for a 11x17 inch print.



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1:500



Location:

181 Toronto Street South,
Township of Uxbridge

Project No.: 21016

Figure 3:

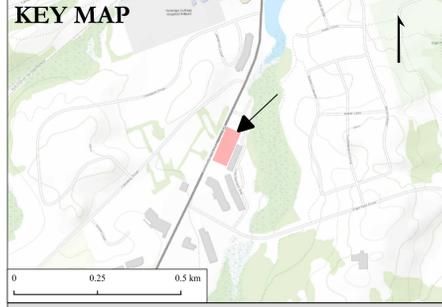
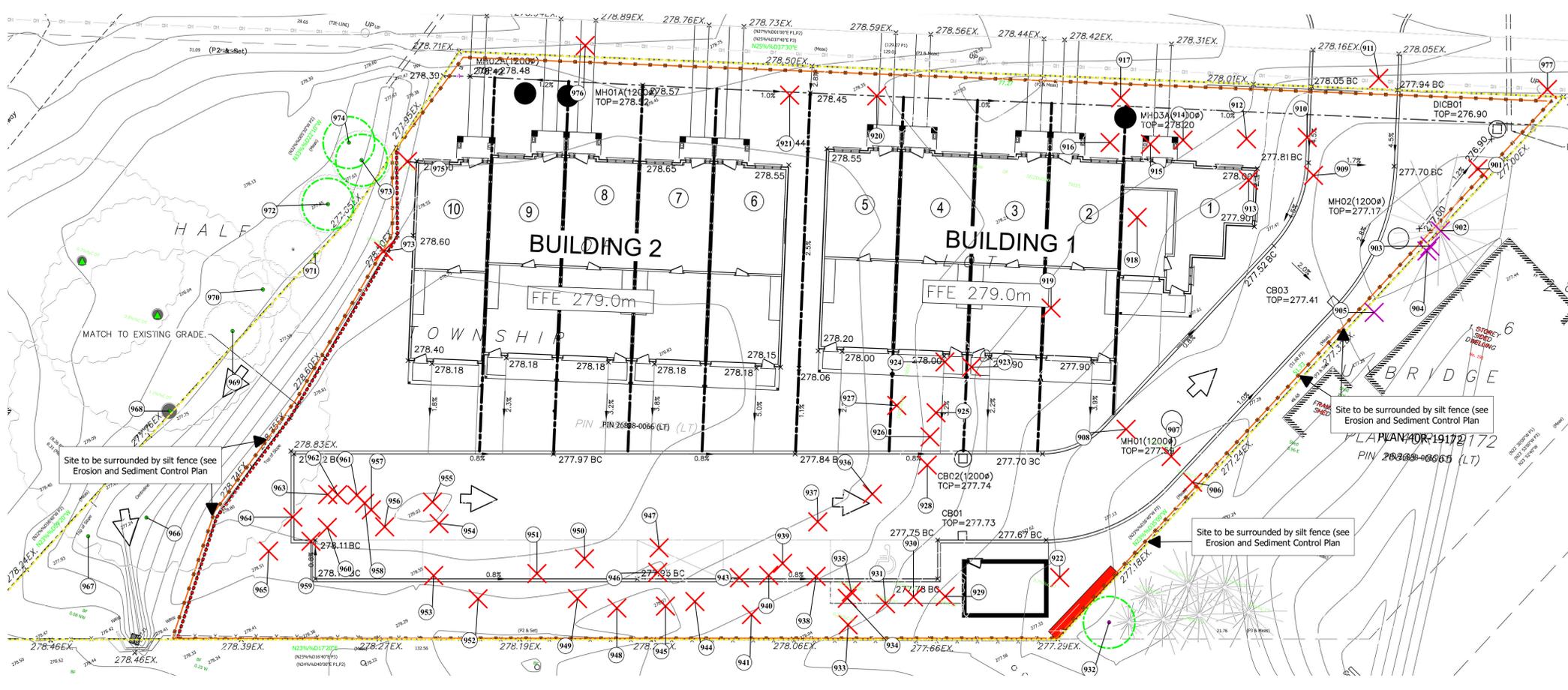
Date: 2022-04-05

By: TK

Checked: AB

Development
Overlay

Orthophotograph Date:
2018 (SCOOP).



Legend

Study Area

- Subject Property

Tree Preservation

- Tree to be Retained
- Neighbouring/Boundary Tree to be Retained but Injured (subject to owners approval)
- Neighbouring/Boundary to be Removed (subject to owners approval)
- Tree to be Removed
- Tree on Neighbouring Property (could not be assessed in detail)
- Minimum Tree Protection Zone for Nearby Neighbouring Trees

Mitigation Measures

- Sediment Fence (see ESC Plan)
- Sensitive Root Excavation Zone

TREE INVENTORY

Tag No.	Common Name	Scientific Name	Ownership ¹	DBH (cm)	Height (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition	Structural Condition	Tree Preservation Direction
901	Common Apple	<i>Malus domestica</i>	Shared with 179 Toronto Street South	32	5	lower branches mostly dead	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
902	White Spruce	<i>Picea glauca</i>	Shared with 179 Toronto Street South	39	4	lower branches through hydro	good	good	Remove - proposed grading and/or site alteration with minimum TPZ; approval from neighbouring owner required.
903	Eastern White Cedar	<i>Thuja occidentalis</i>	179 Toronto Street South	14	1	supported by TPZ	good	fair/poor	Remove - proposed grading and/or site alteration with minimum TPZ; approval from neighbouring owner required.
904	Eastern White Cedar	<i>Thuja occidentalis</i>	179 Toronto Street South	13.10	1	frank tree base, included bark	poor	fair/poor	Remove - proposed grading and/or site alteration with minimum TPZ; approval from neighbouring owner required.
905	White Spruce	<i>Picea glauca</i>	179 Toronto Street South	30	3	severe included bark at 1.8 m	good	good	Remove - proposed grading and/or site alteration.
906	Sugar Maple	<i>Acer saccharum</i>	Applicant	54	5	lean, dieback	fair/poor	fair/poor	Remove - conflicts with proposed development features.
907	Manitoba Maple	<i>Acer negundo</i>	Applicant	41	8	lean, dieback	fair/poor	fair/poor	Remove - conflicts with proposed development features.
908	Manitoba Maple	<i>Acer negundo</i>	Applicant	18.22	4	broken branch, included bark at 1 m	fair	poor	Remove - conflicts with proposed development features.
909	Manitoba Maple	<i>Acer negundo</i>	Applicant	15.13	4	included bark at 1 m, dieback	fair/poor	poor	Remove - conflicts with proposed development features.
910	Manitoba Maple	<i>Acer negundo</i>	Applicant	14.14	5	road allowances, pruned, dieback in lower canopy, recently planted	fair	fair	Remove - conflicts with proposed development features.
911	Grass	<i>Cynodon dactylon</i>	Montclair Road Allowance	0	1	included bark at base, epicormic shoots	fair	fair	Remove - conflicts with proposed development features.
912	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	5	epicormic shoots, broken branches, poor branch attachment	fair	fair	Remove - conflicts with proposed development features.
913	Manitoba Maple	<i>Acer negundo</i>	Applicant	16.12	3	dead branches, epicormic shoots, included bark at base	poor	poor	Remove - conflicts with proposed development features.
914	Manitoba Maple	<i>Acer negundo</i>	Applicant	14	3	epicormic shoots, lean	fair/poor	poor	Remove - conflicts with proposed development features.
915	Manitoba Maple	<i>Acer negundo</i>	Applicant	14.15	4	included bark at base, epicormic shoots	poor	poor	Remove - conflicts with proposed development features.
916	White Elm	<i>Ulmus americana</i>	Applicant	8	3	cluster of stems, largest 8 cm, may with poor attachment or included bark, growing through hydro wires	fair	poor	Remove - conflicts with proposed development features.
918	Manitoba Maple	<i>Acer negundo</i>	Applicant	18.17	5	included bark at base, epicormic shoots, sig dieback	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
919	Manitoba Maple	<i>Acer negundo</i>	Applicant	11	7	included bark at base of all stems, minor dieback	fair	poor	Remove - conflicts with proposed development features.
920	Manitoba Maple	<i>Acer negundo</i>	Applicant	11	3	clump of stems, all poorly attached	good	poor	Remove - conflicts with proposed development features.
921	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	4	clump of stems, all poorly attached	good	poor	Remove - conflicts with proposed grading and/or site alteration.
922	Manitoba Maple	<i>Acer negundo</i>	Applicant	65	9	mature, woody stems, minor dieback, included bark, dieback	fair/poor	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
923	Manitoba Maple	<i>Acer negundo</i>	Applicant	28	3	large hollowed second, leaning, lean	fair/poor	poor	Remove - conflicts with proposed development features.
924	Manitoba Maple	<i>Acer negundo</i>	Applicant	10.13	3	poor stem attachment at base of all stems, epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
925	Manitoba Maple	<i>Acer negundo</i>	Applicant	13.11, 11, 6	6	poor stem attachment at base (all stems), epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
926	Manitoba Maple	<i>Acer negundo</i>	Applicant	21	4	poor stem attachment at base (all stems), epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
927	Manitoba Maple	<i>Acer negundo</i>	Applicant	13.11	4	poor stem attachment at base (smaller stem top), epicormic shoots, dieback	poor	poor	Remove - conflicts with proposed development features.
928	Manitoba Maple	<i>Acer negundo</i>	Applicant	16.12, 12	4	poor stem attachment at base of all stems, epicormic shoots, dieback	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
929	Manitoba Maple	<i>Acer negundo</i>	Applicant	16.22, 13	6	included bark, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
930	Manitoba Maple	<i>Acer negundo</i>	Applicant	33.20	8	included bark, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
931	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	6	slight lean, poor branch attachment	fair	fair	Remove - conflicts with proposed development features.
932	Sugar Maple	<i>Acer saccharum</i>	179 Toronto Street South	20	6	woodywood, crowded by adjacent tree, neighbouring	fair	fair	Retain - root sensitive excavation measures required during all fence installation; approval from neighbouring owner required.
933	Manitoba Maple	<i>Acer negundo</i>	Applicant	18	3	primary stem cut, poor stem attachment at base	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
934	Manitoba Maple	<i>Acer negundo</i>	Applicant	14	3	epicormic shoots, crooked stem	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
935	Manitoba Maple	<i>Acer negundo</i>	Applicant	19	4	epicormic shoots, crooked stem, dead branches	fair/poor	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
936	Manitoba Maple	<i>Acer negundo</i>	Applicant	28	3	epicormic shoots, poor stem attachment at base	fair	poor	Remove - conflicts with proposed development features.
937	Manitoba Maple	<i>Acer negundo</i>	Applicant	18.10, 11	5	epicormic shoots, poor stem attachment at base	poor	poor	Remove - conflicts with proposed development features.
938	Manitoba Maple	<i>Acer negundo</i>	Applicant	21.19	6	severe included bark at base, dieback, epicormic shoots	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
939	Manitoba Maple	<i>Acer negundo</i>	Applicant	18.12	5	included bark at base, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
940	Manitoba Maple	<i>Acer negundo</i>	Applicant	16	4	lean, minor epicormic shoots	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
941	Manitoba Maple	<i>Acer negundo</i>	Applicant	19	5	large pruning cuts, epicormic shoots	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
942	Manitoba Maple	<i>Acer negundo</i>	Applicant	19	5	epicormic shoots	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
943	Manitoba Maple	<i>Acer negundo</i>	Applicant	20	5	included bark at base with rot, severe epicormic shoots	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
944	Manitoba Maple	<i>Acer negundo</i>	Applicant	18.14	5	included bark at base, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
945	Manitoba Maple	<i>Acer negundo</i>	Applicant	20	4	epicormic shoots, lean	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
946	Manitoba Maple	<i>Acer negundo</i>	Applicant	16	4	epicormic shoots, lean	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
947	Manitoba Maple	<i>Acer negundo</i>	Applicant	18.14	5	epicormic shoots, lean, poor stem attachment at base	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
948	Manitoba Maple	<i>Acer negundo</i>	Applicant	17	4	lean open wound, severe dieback	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
949	Manitoba Maple	<i>Acer negundo</i>	Applicant	20.19	5	poor stem attachment at base, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
950	Manitoba Maple	<i>Acer negundo</i>	Applicant	23	5	epicormic shoots, girdling root	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
951	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	4	lean, epicormic shoots	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
952	Manitoba Maple	<i>Acer negundo</i>	Applicant	15	5	epicormic shoots	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
953	Scout Pine	<i>Pinus strobus</i>	Applicant	13	2	small stems	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
954	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	2	lean, dead branches, epicormic shoots	fair/poor	poor	Remove - conflicts with proposed grading and/or site alteration.
955	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	2	crooked stem, dead branches	fair/poor	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
956	Manitoba Maple	<i>Acer negundo</i>	Applicant	19	5	severe lean	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
957	Manitoba Maple	<i>Acer negundo</i>	Applicant	13	3	lean	good	poor	Remove - conflicts with proposed grading and/or site alteration.
958	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	3	lean, included bark	good	poor	Remove - conflicts with proposed grading and/or site alteration.
959	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	5	lean, included bark	good	poor	Remove - conflicts with proposed grading and/or site alteration.
960	Manitoba Maple	<i>Acer negundo</i>	Applicant	15	2	epicormic shoots, minor lean	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
961	Manitoba Maple	<i>Acer negundo</i>	Applicant	17	3	lean, epicormic shoots	fair	fair/poor	Remove - conflicts with proposed development features.
962	Manitoba Maple	<i>Acer negundo</i>	Applicant	26	5	lean, epicormic shoots	fair	poor	Remove - conflicts with proposed development features.
963	Manitoba Maple	<i>Acer negundo</i>	Applicant	32.22	5	severe included bark, epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
964	Manitoba Maple	<i>Acer negundo</i>	Applicant	33.22	2	epicormic shoots, leaning stems	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
965	Manitoba Maple	<i>Acer negundo</i>	Applicant	21, 23, 21	6	severe included bark, dead branches, epicormic shoots	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
966	Black Walnut	<i>Juglans nigra</i>	Applicant	13	4	lean	good	good	Retain.
967	Black Walnut	<i>Juglans nigra</i>	Applicant	19	5	lean	good	good	Retain.
968	Freeman's Maple	<i>Acer x freemanii</i>	Shared with 191 Toronto Street South	95	10	severe included bark, some rot, leaning	good	poor	Retain.
969	White Spruce	<i>Picea glauca</i>	191 Toronto Street South	16	2		good	good	Retain.
970	White Spruce	<i>Picea glauca</i>	191 Toronto Street South	19	3		good	good	Retain.
971	Black Walnut	<i>Juglans nigra</i>	Applicant	11	4		good	good	Retain.
972	Emerald Green Ash	<i>Fraxinus pennsylvanica</i>	191 Toronto Street South	23	4	sprouting at base	fair/good	fair/good	Retain.
973	Black Walnut	<i>Juglans nigra</i>	191 Toronto Street South	19	5		good	good	Retain.
974	White Spruce	<i>Picea glauca</i>	191 Toronto Street South	17	2		good	good	Retain.
975	Manitoba Maple	<i>Acer negundo</i>	Applicant	25.18	6	severe included bark at base, epicormic shoots	fair/poor	poor	Remove - conflicts with proposed grading and/or site alteration.
976	Grass	<i>Cynodon dactylon</i>	Montclair Road Allowance	0	1	dieback, spittle	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
977	Manitoba Maple	<i>Acer negundo</i>	Applicant	12.11	5	poor stem attachment at base of all stems, dead branches	fair	poor	Remove - conflicts with proposed grading and/or site alteration.

¹ All annotations of tree ownership are approximate and have been made on the basis of owner property boundary markers or other direction from a licensed surveyor.
² Notwithstanding the determinations of tree health and structural integrity made herein (e.g., good, fair, poor), it must be recognized that all trees (in good health or otherwise) have the potential for failure given adverse weather, damage due to mechanical injury, or other factors that cause stress.

TREE REMOVAL AND PRESERVATION NOTES:

GENERAL:

1. CONSTRUCTION ACTIVITIES WILL TREAT ALL TREES RECOMMENDED FOR RETENTION SHOWN HEREIN AS CONSTRAINTS.

TREE REMOVAL:

2. ALL NECESSARY TREE REMOVALS WILL BE COMPLETED OUTSIDE THE PRIMARY BIRD NESTING AND BAT ACTIVITY PERIODS (I.E., TO BE COMPLETED BETWEEN OCTOBER 1 AND MARCH 31). IF LIMITED TREE REMOVAL IS REQUIRED DURING THIS PERIOD, A SURVEY WILL BE CONDUCTED BY A QUALIFIED ECOLOGIST WITHIN TWO (2) DAYS OF THE COMMENCEMENT OF TREE REMOVAL ACTIVITIES TO DETERMINE HABITAT SUITABILITY AND/OR CONFIRM THE PRESENCE/ABSENCE OF NESTING BIRDS AND ROOSTING BATS. SHOULD A NESTING BIRD OR ROOSTING BAT BE IDENTIFIED, A MITIGATION PLAN MUST BE DEVELOPED (WHICH MAY INCLUDE DISCUSSIONS WITH RELEVANT AGENCIES) TO ADDRESS REGULATORY REQUIREMENTS.

ROOT SENSITIVE EXCAVATION:

3. ROOT-SENSITIVE EXCAVATION TECHNIQUES (EITHER PNEUMATIC EXCAVATION, HYDRO-VAC EXCAVATION, OR HAND-DIGGING) WILL BE EMPLOYED WITHIN THE AREAS SHOWN DURING SEDIMENT FENCE INSTALLATION AND PRIOR TO THE COMMENCEMENT OF GRADING OR MACHINE EXCAVATION. THE EXCAVATED TRENCH WILL BE APPROXIMATELY 30 CM DEEP AND 15 CM WIDE TO EXPOSE ROOTS AT THE LIMIT OF DISTURBANCE. ROOT-SENSITIVE EXCAVATION AND SUBSEQUENT BACKFILLING TO SECURE THE SEDIMENT FENCE WILL BE UNDERTAKEN ON THE OUTSIDE EDGE OF THE TREE PROTECTION ZONE ONLY.

4. FOLLOWING ROOT EXPOSURE, A QUALIFIED ARBORIST WILL SUPERVISE THE ROOT CUTTING PROCEDURES AND EXAMINE IF ANY EXCESSIVE OR LARGE STRUCTURAL ROOTS REQUIRE CUTTING. ALL EXPOSED TREE ROOTS WILL BE SEVERED CLEARLY IN ACCORDANCE WITH STANDARD ARBORICULTURAL PRACTICES. LOSS OF STRUCTURAL ROOTS MAY NECESSITATE REMOVAL OF THE SUBJECT TREE, TO BE DETERMINED BY THE ON-SITE QUALIFIED ARBORIST.

SHARED/BOUNDARY TREES:

5. THE APPLICANT MUST SECURE APPROVAL TO IMPACT BOUNDARY/NEIGHBOURING TREES FROM RELEVANT PROPERTY OWNERS (179 TORONTO STREET SOUTH) PRIOR TO CONSTRUCTION.

GENERAL NOTES:

- Tree inventory completed by ISA-certified Arborist T. Knight on 12 March 2021.
- The tree health and structural assessment was undertaken consistent with accepted arboricultural techniques. None of the assessed trees were cored, probed, or climbed, nor were their roots exposed for detailed assessment.
- Notwithstanding the determinations of tree health and structural integrity made herein (e.g., good, fair, poor), it must be recognized that all trees (in good health or otherwise) have the potential for failure given adverse weather, damage due to mechanical injury, or other factors that cause stress.
- Notwithstanding any recommendations concerning tree preservation or removal made herein, this plan does not supersede or expunge any civil or common law property rights as they pertain to shared/boundary trees or trees occurring on adjacent properties. This plan does not confirm tree ownership nor authorize the client to encroach or enter onto adjacent properties to destroy or injure trees situated on adjacent properties without the owner's consent.
- Verify all drawing dimensions.
- Numeric scale is for a 24x36 inch print. Do not scale.
- Contractor to report any discrepancies, errors, or omissions to the project Arborist before proceeding.

TERRASTORY
 environmental consulting inc.
 www.terrastoryenv.com info@terrastoryenviro.com 905.745.5398
 Specialists in Natural Heritage, Tree Protection, and Environmental Policy

Location:
 181 Toronto Street South,
 Township of Uxbridge

Project No.: 21016
Date: 2022-04-05
By: TK **Checked:** AB
Orthophotograph Date: n/a

Figure 4:
Tree Preservation Plan

Appendix 1. Representative Photographs



Photo 1. Frontage of the Subject Property along Toronto Street South looking south (3 March 2021).



Photo 2. Treed conditions within the Subject Property (3 March 2021).



Photo 3. Treed conditions within the Subject Property (3 March 2021).



Photo 4. Tree #922 (3 March 2021).



Photo 5. Treed conditions near the eastern boundary of the Subject Property (3 March 2021).



Photo 6. Ditch looking west towards Toronto Street South (3 March 2021).



Photo 7. Stand of Common Reed at the terminus of the ditch (3 March 2021).



Photo 8. Retaining wall at the terminus of the ditch (3 March 2021).

Appendix 2. Tree Inventory and Health Assessment

Tag No.	Common Name	Scientific Name	Ownership ¹	DBH (cm)	Crown Radius (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition ²	Structural Condition ²	Tree Preservation Direction
901	Common Apple	<i>Malus pumila</i>	Applicant	32	5	lower branches mostly dead	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
902	White Spruce	<i>Picea glauca</i>	Shared with 179 Toronto Street South	39	4	lower branches through hydro	good	good	Remove - proposed grading and/or site alteration with minimum TPZ; approval from shared owner required.
903	Eastern White Cedar	<i>Thuja occidentalis</i>	179 Toronto Street South	14	1	suppressed by #902, included bark	good	fair/poor	Remove - proposed grading and/or site alteration with minimum TPZ; approval from neighbouring owner required.
904	Eastern White Cedar	<i>Thuja occidentalis</i>	179 Toronto Street South	13, 10	1	forks near base, included bark	poor	fair/poor	Remove - proposed grading and/or site alteration with minimum TPZ; approval from neighbouring owner required.
905	White Spruce	<i>Picea glauca</i>	179 Toronto Street South	30	3		good	good	Remove - proposed grading and/or site alteration with minimum TPZ; approval from neighbouring owner required.
906	Sugar Maple	<i>Acer saccharum</i>	Applicant	17	4	severe included bark at 1.8 m	good	poor	Remove - conflicts with proposed grading and/or site alteration.
907	Manitoba Maple	<i>Acer negundo</i>	Applicant	34	5	lean, dieback	fair/poor	fair/poor	Remove - conflicts with proposed development features.
908	Manitoba Maple	<i>Acer negundo</i>	Applicant	61	8	lean, dieback	fair/poor	fair/poor	Remove - conflicts with proposed development features.
909	Manitoba Maple	<i>Acer negundo</i>	Applicant	19, 22	4	broken branch, included bark at 1 m	fair	poor	Remove - conflicts with proposed development features.
910	Manitoba Maple	<i>Acer negundo</i>	Applicant	13, 13	4	included bark at 1 m, dieback	fair/poor	poor	Remove - conflicts with proposed development features.
911	Ginkgo	<i>Ginkgo biloba</i>	Municipal Road Allowance	6	1	road allowance, pruned, dieback in lower canopy, recently planted	fair	fair	Remove - conflicts with proposed development features.
912	Manitoba Maple	<i>Acer negundo</i>	Applicant	14, 14	5	included bark at base, epicormic shoots	fair	poor	Remove - conflicts with proposed development features.
913	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	5	epicormic shoots, broken branch, poor branch attachment	fair	fair	Remove - conflicts with proposed development features.
914	Manitoba Maple	<i>Acer negundo</i>	Applicant	16, 12	3	dead branches, epicormic shoots, included bark at base	poor	2	Remove - conflicts with proposed development features.
915	Manitoba Maple	<i>Acer negundo</i>	Applicant	14	3	epicormic shoots, lean	fair/poor	fair/poor	Remove - conflicts with proposed development features.
916	Manitoba Maple	<i>Acer negundo</i>	Applicant	14, 15	4	included bark at base, epicormic shoots	poor	poor	Remove - conflicts with proposed development features.

Tag No.	Common Name	Scientific Name	Ownership ¹	DBH (cm)	Crown Radius (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition ²	Structural Condition ²	Tree Preservation Direction
917	White Elm	<i>Ulmus americana</i>	Applicant	8	3	cluster of stems, largest 8 cm, many with poor attachments or included bark, growing through hydro wires, road allowance	fair	poor	Remove - conflicts with proposed development features.
918	Manitoba Maple	<i>Acer negundo</i>	Applicant	18, 17, 10	5	included bark at base, epicormic shoots, sig dieback	poor	poor	Remove - conflicts with proposed grading and/or site alteration
919	Manitoba Maple	<i>Acer negundo</i>	Applicant	14, 19, 9, 13	7	included bark at base of all stems, minor dieback	fair	poor	Remove - conflicts with proposed development features.
920	Manitoba Maple	<i>Acer negundo</i>	Applicant	11	3	clump of stems, all poorly attached	good	poor	Remove - conflicts with proposed development features.
921	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	4	clump of stems, all poorly attached	good	poor	Remove - conflicts with proposed grading and/or site alteration
922	Manitoba Maple	<i>Acer negundo</i>	Applicant	65	9	mature, wooden steps nailed into stem, included branch, dieback	fair/poor	fair/poor	Remove - conflicts with proposed grading and/or site alteration
923	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	3	large callused wound, twisting, lean	fair/poor	poor	Remove - conflicts with proposed development features.
924	Manitoba Maple	<i>Acer negundo</i>	Applicant	10, 13	4	poor stem attachment at base all stems, epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
925	Manitoba Maple	<i>Acer negundo</i>	Applicant	15, 11, 11, 11, 10	6	poor stem attachment at base (all stems), epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
926	Manitoba Maple	<i>Acer negundo</i>	Applicant	21	4	poor stem attachment at base (all stems), epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
927	Manitoba Maple	<i>Acer negundo</i>	Applicant	13, 11	4	poor stem attachment at base smaller stems too, epicormic shoots, dieback	poor	poor	Remove - conflicts with proposed development features.
928	Manitoba Maple	<i>Acer negundo</i>	Applicant	16, 12, 12	5	poor stem attachment at base all stems, epicormic shoots, dieback	poor	poor	Remove - conflicts with proposed development features.
929	Manitoba Maple	<i>Acer negundo</i>	Applicant	16, 22, 13	6	included bark, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
930	Manitoba Maple	<i>Acer negundo</i>	Applicant	33, 20	8	included bark, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
931	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	6	slight lean, poor branch attachment	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
932	Sugar Maple	<i>Acer saccharum</i>	179 Toronto Street South	20	6	woundwood, crowded by adjacent tree, neighbouring	fair	fair	Retain - root sensitive excavation measures required during silt fence installation; approval from neighbouring owner required.
933	Manitoba Maple	<i>Acer negundo</i>	Applicant	18	3	primary stem cut, poor stem attachment at base	poor	poor	Remove - conflicts with proposed grading and/or site alteration.

Tag No.	Common Name	Scientific Name	Ownership ¹	DBH (cm)	Crown Radius (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition ²	Structural Condition ²	Tree Preservation Direction
934	Manitoba Maple	<i>Acer negundo</i>	Applicant	14	3	epicormic shoots, crooked stem	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
935	Manitoba Maple	<i>Acer negundo</i>	Applicant	19	4	epicormic shoots, crooked stem, dead branches	fair/poor	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
936	Manitoba Maple	<i>Acer negundo</i>	Applicant	9.8	3	epicormic shoots, poor stem attachment at base	fair	poor	Remove - conflicts with proposed development features.
937	Manitoba Maple	<i>Acer negundo</i>	Applicant	18, 10, 11	5	epicormic shoots, poor stem attachment at base	fair	poor	Remove - conflicts with proposed development features.
938	Manitoba Maple	<i>Acer negundo</i>	Applicant	21, 19	6	severe included bark at base, dieback, epicormic shoots	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
939	Manitoba Maple	<i>Acer negundo</i>	Applicant	19, 12	5	included bark at base, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
940	Manitoba Maple	<i>Acer negundo</i>	Applicant	16	4	lean, minor epicormic shoots	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
941	Manitoba Maple	<i>Acer negundo</i>	Applicant	19	5	large pruning cuts, epicormic shoots	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
942	Manitoba Maple	<i>Acer negundo</i>	Applicant	19	5	epicormic shoots, lean	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
943	Manitoba Maple	<i>Acer negundo</i>	Applicant	20, 20	5	included bark at base with rot, severe epicormic shoots	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
944	Manitoba Maple	<i>Acer negundo</i>	Applicant	18, 14	5	included bark at base, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
945	Manitoba Maple	<i>Acer negundo</i>	Applicant	20	4	epicormic shoots, lean	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
946	Manitoba Maple	<i>Acer negundo</i>	Applicant	16	4	epicormic shoots, lean	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
947	Manitoba Maple	<i>Acer negundo</i>	Applicant	18, 10	4	epicormic shoots, lean, poor stem attachment at base	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
948	Manitoba Maple	<i>Acer negundo</i>	Applicant	17	4	large open wound, woundwood, lean	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
949	Manitoba Maple	<i>Acer negundo</i>	Applicant	20, 19	5	poor stem attachment at base, lean, epicormic shoots	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
950	Manitoba Maple	<i>Acer negundo</i>	Applicant	15	4	epicormic shoots, girdling root	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
951	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	4	lean, epicormic shoots	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.

Tag No.	Common Name	Scientific Name	Ownership ¹	DBH (cm)	Crown Radius (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition ²	Structural Condition ²	Tree Preservation Direction
952	Manitoba Maple	<i>Acer negundo</i>	Applicant	15	5	epicormic shoots	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
953	Scots Pine	<i>Pinus sylvestris</i>	Applicant	15	2	small crown	fair	fair	Remove - conflicts with proposed grading and/or site alteration.
954	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	2	lean, dead branches, epicormic shoots	fair/poor	poor	Remove - conflicts with proposed grading and/or site alteration.
955	Manitoba Maple	<i>Acer negundo</i>	Applicant	10	2	crooked stem, dead branches	fair/poor	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
956	Manitoba Maple	<i>Acer negundo</i>	Applicant	16	3	severe lean	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
957	Manitoba Maple	<i>Acer negundo</i>	Applicant	15	3	severe lean	fair	poor	Remove - conflicts with proposed grading and/or site alteration.
958	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	3	lean	good	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
959	Manitoba Maple	<i>Acer negundo</i>	Applicant	22	5	lean, included bark	good	poor	Remove - conflicts with proposed grading and/or site alteration.
960	Manitoba Maple	<i>Acer negundo</i>	Applicant	15	2	epicormic shoots, minor lean	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
961	Manitoba Maple	<i>Acer negundo</i>	Applicant	17	3	lean, epicormic shoots	fair	fair/poor	Remove - conflicts with proposed development features.
962	Manitoba Maple	<i>Acer negundo</i>	Applicant	26	5	lean, epicormic shoots	fair	fair/poor	Remove - conflicts with proposed development features.
963	Manitoba Maple	<i>Acer negundo</i>	Applicant	32, 22	5	severe included bark, copious epicormic shoots	fair/poor	poor	Remove - conflicts with proposed development features.
964	Manitoba Maple	<i>Acer negundo</i>	Applicant	33, 22	7	epicormic shoots, leaning stems	fair	fair/poor	Remove - conflicts with proposed grading and/or site alteration.
965	Manitoba Maple	<i>Acer negundo</i>	Applicant	21, 23, 21	6	severe included bark dead branches, epicormic shoots	poor	poor	Remove - conflicts with proposed grading and/or site alteration.
966	Black Walnut	<i>Juglans nigra</i>	Applicant	13	4		good	good	Retain.
967	Black Walnut	<i>Juglans nigra</i>	Applicant	19	5		good	good	Retain.
968	Freeman's Maple	<i>Acer x freemanii</i>	Shared with 191 Toronto Street South	95	10	severe included bark, some stems leaning	good	poor	Retain.
969	White Spruce	<i>Picea glauca</i>	191 Toronto Street South	16	2		good	good	Retain.

Tag No.	Common Name	Scientific Name	Ownership ¹	DBH (cm)	Crown Radius (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition ²	Structural Condition ²	Tree Preservation Direction
970	White Spruce	<i>Picea glauca</i>	191 Toronto Street South	19	3		good	good	Retain.
971	Black Walnut	<i>Juglans nigra</i>	Applicant	11	4		good	good	Retain.
972	European Mountain-ash	<i>Sorbus aucuparia</i>	191 Toronto Street South	22	4	sprouting at base	fair/good	fair/good	Retain.
973	Black Walnut	<i>Juglans nigra</i>	191 Toronto Street South	19	5		good	good	Retain.
974	White Spruce	<i>Picea glauca</i>	191 Toronto Street South	17	2		good	good	Retain.
975	Manitoba Maple	<i>Acer negundo</i>	Applicant	25, 18	6	severe included bark at base, epicormic shoots	fair/good	poor	Remove - conflicts with proposed grading and/or site alteration.
976	Ginkgo	<i>Ginkgo biloba</i>	Municipal Road Allowance	5	1	dieback, spindly	fair	fair	Remove - conflicts with proposed development features.
977	Manitoba Maple	<i>Acer negundo</i>	Municipal Road Allowance	12, 11	5	poor stem attachment at base all stem, dead branches	fair	poor	Remove - conflicts with proposed grading and/or site alteration.

¹ - All determinations of tree ownership are approximate and have been made in the absence of on-site property boundary markers or other direction from a licensed surveyor.

² - Notwithstanding the determinations of tree health and structural integrity made herein (e.g., good, fair, poor), it must be recognized that all trees (in good health or otherwise) have the potential for failure given adverse weather, damage due to mechanical

Appendix 3. Vascular Plant List

Scientific Name	Common Name	Family	S-Rank (per NHIC)	Local Rank (per Oldham 2017)	Coefficient of Conservatism	Coefficient of Wetness
<i>Acer negundo</i>	Manitoba Maple	Aceraceae	S5		0	0
<i>Acer saccharum</i>	Sugar Maple	Aceraceae	S5		4	3
<i>Acer x freemanii</i>	Freeman's Maple	Aceraceae	SNA		6	-5
<i>Aegopodium podagraria</i>	Goutweed	Apiaceae	SNA		0	0
<i>Agrostis gigantea</i>	Redtop	Poaceae	SNA		0	-3
<i>Agrostis perennans</i>	Upland Bentgrass	Poaceae	S4?		5	3
<i>Asclepias syriaca</i>	Common Milkweed	Asclepiadaceae	S5		0	5
<i>Bromus inermis</i>	Smooth Brome	Poaceae	SNA		0	5
<i>Cerastium fontanum</i>	Common Mouse-ear Chickweed	Caryophyllaceae	SNA		0	3
<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade	Onagraceae	S5		2	3
<i>Cirsium arvense</i>	Canada Thistle	Asteraceae	SNA		0	3
<i>Convallaria majalis</i>	European Lily-of-the-valley	Liliaceae	SNA		0	5
<i>Cynanchum rossicum</i>	Honeyvine	Asclepiadaceae	SNA		0	0
<i>Daucus carota</i>	Wild Carrot	Apiaceae	SNA		0	5
<i>Equisetum arvense</i>	Field Horsetail	Equisetaceae	S5		0	0
<i>Erigeron philadelphicus</i>	Philadelphia Fleabane	Asteraceae	S5		1	-3
<i>Galium mollugo</i>	Smooth Bedstraw	Rubiaceae	SNA		0	5
<i>Glechoma hederacea</i>	Ground Ivy	Lamiaceae	SNA		0	3
<i>Hemerocallis fulva</i>	Orange Daylily	Liliaceae	SNA		0	5
<i>Hypericum perforatum</i>	Common St. John's-wort	Clusiaceae	SNA		0	5
<i>Impatiens capensis</i>	Spotted Jewelweed	Balsaminaceae	S5		4	-3
<i>Juglans nigra</i>	Black Walnut	Juglandaceae	S4?		5	3
<i>Lactuca serriola</i>	Prickly Lettuce	Asteraceae	SNA		0	3
<i>Lepidium campestre</i>	Field Peppergrass	Brassicaceae	SNA		0	5
<i>Malus pumila</i>	Common Apple	Rosaceae	SNA		0	5
<i>Medicago lupulina</i>	Black Medic	Fabaceae	SNA		0	3
<i>Phalaris arundinacea</i>	Reed Canary Grass	Poaceae	S5		0	-3
<i>Phragmites australis ssp. australis</i>	European Reed	Poaceae	SNA		0	-3
<i>Physocarpus opulifolius</i>	Eastern Ninebark	Rosaceae	S5		5	-3
<i>Picea glauca</i>	White Spruce	Pinaceae	S5		6	3
<i>Pinus strobus</i>	Eastern White Pine	Pinaceae	S5		4	3
<i>Pinus sylvestris</i>	Scots Pine	Pinaceae	SNA		0	3
<i>Poa pratensis subsp. pratensis</i>	Kentucky Bluegrass	Poaceae	SNA		0	3
<i>Populus tremuloides</i>	Trembling Aspen	Salicaceae	S5		2	0
<i>Prunus virginiana</i>	Choke Cherry	Rosaceae	S5		2	3
<i>Salix discolor</i>	Pussy Willow	Salicaceae	S5		3	-3
<i>Silene vulgaris</i>	Bladder Campion	Caryophyllaceae	SNA		0	5
<i>Solidago altissima</i>	Tall Goldenrod	Asteraceae	S5		1	3
<i>Sorbus aucuparia</i>	European Mountain-ash	Rosaceae	SNA		0	5
<i>Symphotrichum lanceolatum</i>	Panicled Aster	Asteraceae	S5		3	-3

Scientific Name	Common Name	Family	S-Rank (per NHIC)	Local Rank (per Oldham 2017)	Coefficient of Conservatism	Coefficient of Wetness
<i>Tanacetum vulgare</i>	Common Tansy	Asteraceae	SNA		0	5
<i>Taraxacum officinale</i>	Common Dandelion	Asteraceae	SNA		0	3
<i>Thuja occidentalis</i>	Eastern White Cedar	Cupressaceae	S5		4	-3
<i>Ulmus americana</i>	American Elm	Ulmaceae	S5		3	-3
<i>Veronicastrum virginicum</i>	Culver's Root	Scrophulariaceae	S2		10	0
<i>Vicia cracca</i>	Tufted Vetch	Fabaceae	SNA		0	5
<i>Vitis riparia</i>	Riverbank Grape	Vitaceae	S5		0	0

Appendix 4. Endangered and Threatened Species
Assessment

Species	Status per O. Reg. 230/08 of the ESA	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “Damage” or “Destruction” as defined in the ESA) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Birds					
Bank Swallow <i>(Riparia riparia)</i>	THR	OBBA	<ul style="list-style-type: none"> Nests in natural or anthropogenically derived exposed, sandy substrates on vertical or steep surfaces. Forages in a variety of open areas including agricultural lands, meadows, prairies, woodland clearings, marshes, and above waterbodies. 	Negligible. While this species may forage over open areas on the Subject Property for brief periods during migration or forays from adjacent breeding sites, suitable breeding sites are absent from the Subject Property.	--
Barn Swallow <i>(Hirundo rustica)</i>	THR	OBBA	<ul style="list-style-type: none"> Nests in barns, bridge/culvert undersides, awnings/overhangs on sides of buildings, and (historically) tree cavities. Forages in a variety of open areas including agricultural lands, meadows, prairies, woodland clearings, marshes, and above waterbodies. 	Negligible. While this species may forage over open areas on the Subject Property for brief periods during migration or forays from adjacent breeding sites, suitable breeding sites are absent from the Subject Property.	--
Bobolink <i>(Dolichonyx oryzivorus)</i>	THR	OBBA	<ul style="list-style-type: none"> Breeds and forages in hayfields, pastures, meadows, grasslands, and prairies which are often (but not always) greater 4 ha. May be found in more marginal habitats (e.g., shrubby fields, smaller fields, etc.) during migration or following disturbance to breeding habitats (e.g., hay cutting). 	Negligible. Suitable breeding habitat absent.	--
Chimney Swift <i>(Chaetura pelagica)</i>	THR	Urban area	<ul style="list-style-type: none"> Nests in large, uncapped chimneys and (historically) tree cavities. May forage above a wide variety of anthropogenic (e.g., cities, towns) and natural (e.g., fields, forests) areas. 	Negligible. While this species may forage over open areas on the Subject Property for brief periods during migration or forays from adjacent breeding sites, suitable breeding sites are absent from the Subject Property.	--
Eastern Meadowlark <i>(Sturnella magna)</i>	THR	OBBA, NHIC	<ul style="list-style-type: none"> Breeds and forages in hayfields, savannahs, pastures, meadows, grasslands, prairies, and shrubby fields. 	Negligible. Suitable breeding habitat absent.	--
Eastern Whip-poor-will <i>(Caprimulgus vociferus)</i>	THR	OBBA	<ul style="list-style-type: none"> Breeds and forages in semi-open deciduous forests and thickets, and their edges. 	Negligible. Suitable breeding habitat absent.	--
Piping Plover <i>(Charadrius melodus)</i>	END	OBBA	<ul style="list-style-type: none"> Breeds and forages on beaches and sand bars along Great Lakes shorelines. 	Negligible. Suitable breeding habitat absent.	--
Least Bittern <i>(Ixobrychus exilis)</i>	THR	Habitat conditions on adjacent lands and distribution	<ul style="list-style-type: none"> Breeds and forages in marshes dominated by robust emergent vegetation containing areas of open water (i.e., interspersed). 	Negligible. Suitable breeding habitat absent.	--
Red-headed Woodpecker <i>(Melanerpes erythrocephalus)</i>	END	Habitat conditions and distribution in southern Ontario	<ul style="list-style-type: none"> Breeds and forages in open forests, savannahs, and forest edges that tend to contain large, mature trees. 	Unlikely. Site and visible portions of Adjacent Lands lack woodland characteristics (e.g., mature trees) which could be expected to support this species.	--
Mammals					
Eastern Small-footed Myotis <i>(Myotis leibii)</i>	END	Habitat conditions and distribution	<ul style="list-style-type: none"> Maternal roosting sites include exposed rock outcrops, crevices, and cliffs. Overwinters in caves and mines that maintain temperatures above 0°C. 	Unlikely. While species may forage above open habitats on the Subject Property and/or Adjacent Lands, potential maternal roosting habitat (e.g., rock outcrops, cliffs, etc.) is absent.	--

Species	Status per O. Reg. 230/08 of the ESA	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “Damage” or “Destruction” as defined in the ESA) will occur based on the Proposed Development Plan and any related Site Alteration Activities
Little Brown Myotis <i>(Myotis lucifugus)</i>	END	Habitat conditions and distribution	<ul style="list-style-type: none"> • Maternity roosts sites most often include buildings and large diameter trees with cracks, crevices, and/or exfoliating bark. • Overwinters in caves and mines that maintain temperatures above 0°C. 	Possible. Species may roost within suitable trees (with cracks, crevices, etc.) on the Subject Property.	Negligible. A timing window restriction is applied to tree removal activities to avoid impacting roosting bats (individuals or maternity colonies). Additional mitigation measures for construction and detailed design are also provided See report for greater details.
Northern Myotis <i>(Myotis septentrionalis)</i>	END	Habitat conditions and distribution	<ul style="list-style-type: none"> • Maternity roosts most often include large diameter trees with cracks, crevices, and/or exfoliating bark (buildings rarely used). • Overwinters in caves and mines that maintain temperatures above 0°C. 	Possible. Species may roost within suitable trees (with cracks, crevices, etc.) on the Subject Property.	Negligible. A timing window restriction is applied to tree removal activities to avoid impacting roosting bats (individuals or maternity colonies). Additional mitigation measures for construction and detailed design are also provided See report for greater details.
Tri-colored Bat <i>(Perimyotis subflavus)</i>	END	Habitat conditions and distribution	<ul style="list-style-type: none"> • Maternal roosting sites include Maple (<i>Acer</i> spp.) and Oak (<i>Quercus</i> spp.) with dead/dying leaf clusters. • Overwinters in caves and mines that maintain temperatures above 0°C. 	Possible. Species may roost within suitable trees (maple with dead leaf clusters) on the Subject Property.	Negligible. A timing window restriction is applied to tree removal activities to avoid impacting roosting bats (individuals or maternity colonies). Additional mitigation measures for construction and detailed design are also provided See report for greater details.
Plants					
Butternut <i>(Juglans cinerea)</i>	END	Habitat conditions and distribution	<ul style="list-style-type: none"> • Occupies a variety of treed habitats including mature forests, early-successional forests, and hedgerows. 	Negligible. Species not documented during tree inventory.	--
Reptiles					
Blanding's Turtle <i>(Emydoidea blandingii)</i>	THR	Habitat conditions and distribution	<ul style="list-style-type: none"> • Occupies freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes, and swamps. • Nests in exposed, usually coarse, friable substrate. • Known to make long-distance overland movements (i.e., several kilometers) between habitats. 	Negligible. While potentially suitable habitat for turtles is present on Adjacent Lands to the east, this area is well set-back from the Subject Property. The Subject Property is not expected to act as nesting habitat for this species or as a movement corridor.	--

¹ Likelihood categories are to be interpreted as follows:

Negligible: so limited that the assessed species can be assumed absent.

Unlikely: while theoretically conceivable, species presence very improbable or temporary based on available information (e.g., habitat conditions, range, abundance in local landscape, etc.).

Possible: species presence plausible based on available information; no convincing evidence suggesting species could not occur on-site.

Probable: while not confirmed, available information suggests species has a high likelihood of being present.

Confirmed: species observed and/or evidence of occupation (e.g., tracks, etc.) documented.

Appendix 5. Significant Wildlife Habitat Assessment

Ecoregion 6E	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 6E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 6E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Seasonal Concentration Areas of Animals			
Waterfowl Stopover and Staging Areas (Terrestrial)	No. Meadows, fields, and/or thickets that annually flood during spring and could support significant congregations of migrating waterfowl are absent.	--	--
Waterfowl Stopover and Staging Areas (Aquatic)	No. Large surface water features (e.g., ponds, lakes, bays, coastal inlets, large watercourses, etc.) and/or wetlands that annually flood during spring and could support significant congregations of migrating waterfowl are absent.	--	--
Shorebird Migratory Stopover Areas	No. Unvegetated open areas adjacent to surface water features (e.g., shorelines, beaches, mudflats, etc.) which could support significant congregations of migrating shorebirds are absent	--	--
Raptor Wintering Areas	No. While forest and (to much a lesser extent) meadow habitats are present, which may occasionally support wintering raptors, such habitats are too small to support significant congregations of wintering raptors.	--	--
Bat Hibernacula	No. Features that could support hibernating bats (e.g., caves, mine shafts, karsts, etc.) are absent.	--	--
Bat Maternity Colonies	Yes. Mature deciduous and mixed forests with a high-density (i.e., >10/ha) of large-diameter (i.e., ≥25 cm DBH) trees containing cracks/cavities may be present on Adjacent Lands.	Unknown. Acoustic monitoring devices not deployed as part of this study.	Negligible. Development and site alteration activities are restricted from the boundary (i.e., dripline) of the deciduous forest on Adjacent Lands, which has the greatest likelihood of supporting bat maternal colonies. The cultural woodland within the Subject Property is relatively young, disturbed, and not considered candidate SWH for bat maternity colonies.
Turtle Wintering Areas	Yes. Surface water features and/or wetlands with soft, muddy substrate which do not freeze to the bottom during winter may be present on Adjacent Lands (i.e., in the adjacent PSW).	Unknown. Turtle emergence surveys not undertaken as part of this study.	Negligible. Development and site alteration activities are >50 m from the PSW boundary, which has the greatest likelihood of supporting turtle wintering.
Reptile Hibernaculum	No. Features (e.g., small mammal burrows, rock crevices, etc.) and/or habitats (e.g., certain wetlands with a fluctuating water table, etc.) that could provide snakes with access below the frost line are absent.	--	--
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)	No. Features that could support nesting by Cliff Swallow and Northern Rough-winged swallow (e.g., eroding banks, sandy hills, borrow pits, steep slopes, cliff faces, etc.) are absent.	--	--
Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)	Yes. The MNRF has identified a Mixed Wader Nesting Colony within 1 km of the Subject Property. Based on habitats present, it is expected that this SWH type is associated with the PSW on Adjacent Lands or beyond.	Yes. Bird surveys were not undertaken as part of this study. However, data from the MNRF confirms the presence of this SWH type within 1 km of the Subject Property. The exact location of this SWH type was not mapped and is not known.	Negligible. Development and site alteration activities are >50 m from the PSW boundary, which has the greatest likelihood of supporting tree nesting by colonial waterbirds.
Colonially - Nesting Bird Breeding Habitat (Ground)	No. Rocky islands or peninsulas along lakes or large rivers are absent.	--	--
Migratory Butterfly Stopover Areas	No. A mixture of fields and forests within 5 km from the shoreline of Lake Ontario are absent.	--	--

Ecoregion 6E	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 6E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 6E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Landbird Migratory Stopover Areas	No. While migrating landbirds may temporarily stopover in natural areas on Adjacent Lands to feed and rest, it is unlikely that the natural areas support significant congregations of migrating landbirds as it is greater than 5 km from the shoreline of Lake Ontario.	--	--
Deer Yarding Areas	No. MNRF has not identified any deer yarding areas and the Subject Property lacks vegetation communities that could provide thermal cover and lower snow depths in winter (e.g., coniferous woodlands and plantations, etc.).	--	--
Deer Winter Congregation Areas	No. See above.	--	--
Rare Vegetation Communities or Specialized Habitats for Wildlife			
Cliffs and Talus Slopes	No. Cliffs and talus slope communities are absent.	--	--
Sand Barren	No. Sand barren communities are absent.	--	--
Alvar	No. Flora characteristic of alvars are absent.	--	--
Old Growth Forest	No. Based on a review of historical aerial photographs, the treed habitats have emerged recently and would not be expected to exhibit old-growth characteristics (e.g., old trees, abundant snags and downed woody debris, canopy gaps caused by species turnover, limited disturbance, etc.).	--	--
Savannah	No. Flora characteristic of savannahs are absent.	--	--
Tallgrass Prairie	No. Flora characteristic of tallgrass prairies are absent.	--	--
Other Rare Vegetation Community	No. Provincially rare vegetation communities are absent.	--	--
Waterfowl Nesting Area	Yes. The adjacent PSW and swamp communities could support nesting waterfowl.	Unknown. Waterfowl surveys not undertaken.	Negligible. Development and site alteration activities are >50 m from the PSW boundary, which has the greatest likelihood of supporting waterfowl nesting.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	No. Forest communities adjacent to large surface water features are absent.	--	--
Woodland Raptor Nesting Habitat	Yes. Treed communities on Adjacent Lands may support significant congregations of nesting raptors.	Unknown. Stick nest surveys not undertaken as part of this study.	Negligible. Development and site alteration activities are >30 m from the boundary woodland and contiguous PSW, which has the greatest likelihood of supporting raptor nesting.
Turtle Nesting Areas	No. Exposed mineral soils adjacent to surface water features (e.g., lakes, ponds, etc.) and/or wetlands that may support turtles are absent on the Subject Property.	--	--
Seeps and Springs	No. Areas where groundwater emerges at the surface and may support specialized habitat for plants and wildlife are absent from the Subject Property.	--	--

Ecoregion 6E	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 6E Criteria Schedule) as Candidate SWH?	Do any Features, Habitats, or Areas on the Subject Property or Adjacent Lands meet relevant criteria (Ecoregion 6E Criteria Schedule) as Confirmed SWH?	Likelihood that Negative Effects to SWH (i.e., “degradation that threatens the health and integrity” as defined in the 2020 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Amphibian Breeding Habitat (Woodland)	No. Forests with wetlands, ponds, and/or pools that may support significant congregations of breeding amphibians are absent.	--	--
Amphibian Breeding Habitat (Wetlands)	Yes. Wetlands and surface water features (e.g., ponds, lakes, etc.) that may support significant congregations of breeding amphibians are present within the PSW on Adjacent Lands.	Unknown. Amphibian surveys not undertaken as part of this study.	Negligible. Development and site alteration activities are restricted >50 m from the PSW boundary, which has the greatest likelihood of supporting amphibian breeding.
Woodland Area-Sensitive Bird Breeding Habitat	No. Interior forest interior conditions (i.e., >200 m from edge) are absent.	--	--
Habitat for Species of Conservation Concern			
Marsh Bird Breeding Habitat	No. Wetland habitats of sufficient size with abundant shallow water and emergent aquatic vegetation appear to be absent.	--	--
Open Country Bird Breeding Habitat	No. Meadow habitats of sufficient size are absent.	--	--
Shrub/Early Successional Bird Breeding Habitat	No. Shrub/early-successional habitats of sufficient size are absent.	--	--
Terrestrial Crayfish	Yes. Marsh and swamp communities are present within the PSW on Adjacent Lands.	Unknown. Crayfish surveys not undertaken as part of this study.	Negligible. Development and site alteration activities are >50 m from the PSW boundary, which has the greatest likelihood of supporting terrestrial crayfish.
Special Concern and Rare Wildlife Species	Yes. See Table 2 below.	Yes. See Table 2 below.	Possible. See Table 2 below.
Animal Movement Corridors			
Amphibian Movement Corridors	Yes. An amphibian movement corridor is likely present in the PSW on Adjacent Lands.	Unknown. Amphibian surveys not undertaken as part of this study.	Negligible. Development and site alteration activities are restricted > 50 m from the PSW boundary, which has the greatest likelihood of supporting amphibians. The Subject Property is not expected to act as a significant movement corridor between breeding and summer habitat for amphibians due to lack of suitable habitat.
Deer Movement Corridors	No. As MNRF has not identified any Deer Yarding Areas, significant Deer Movement Corridors are by extension also absent.	--	--

Table 1. Results of the Special Concern and Provincially Rare Species Assessment.

Species	Status per O. Reg. 242/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “degradation that threatens the health and integrity” as defined in the 2014 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Amphibians					
Western Chorus Frog (<i>Pseudacris triseriata</i>)	S3	Ontario Herp Atlas	<ul style="list-style-type: none"> Generally breeds in fishless woodland ponds, bottomland swamps, damp meadows, marshes, and temporary ponds in both closed canopy and open areas. Overwinters underground in terrestrial areas or under surface cover, such as fallen logs. 	Possible. Potentially suitable habitat is present in the PSW and contiguous meadow on Adjacent Lands.	Negligible. Development and site alteration activities are >50 m from the PSW boundary and contiguous meadow, which has the greatest likelihood of supporting the species.
Birds					
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	SC	OBBA	<ul style="list-style-type: none"> Generally found feeding along waterbodies and shorelines, and adjacent deciduous and mixed forests. Super-canopy trees are used for nesting and roosting. Feeds largely on fish and carrion. 	Negligible. Suitable breeding habitat is absent.	--
Black Tern (<i>Chlidonias niger</i>)	SC	OBBA	<ul style="list-style-type: none"> Forages and nests in freshwater marshes with floating vegetation mats. 	Negligible. Suitable breeding habitat is absent.	--
Canada Warbler (<i>Cardellina canadensis</i>)	SC	OBBA	<ul style="list-style-type: none"> Breeds and forages in a wet thickets, swamps, and mature deciduous forest. 	Possible. Potentially suitable habitat is present in the PSW and contiguous woodland on Adjacent Lands.	Negligible. Development and site alteration activities are >30 m from the woodland and contiguous PSW, which has the greatest likelihood of providing breeding habitat for this species.
Common Nighthawk (<i>Chordeiles minor</i>)	SC	OBBA	<ul style="list-style-type: none"> Open areas with little or no ground vegetation, such as rock barrens, forest clearings, burned areas, peat bogs, shorelines Infrequently nests in open anthropogenic landscapes (e.g., gravel roads, mine tailings, cultivated fields) 	Negligible. Suitable breeding habitat is absent.	--
Eastern Wood-pewee (<i>Contopus virens</i>)	SC	OBBA	<ul style="list-style-type: none"> Breeds and forages in relatively open, deciduous and mixed forests of various sizes (including urban forest fragments) and along forest edges. 	Possible. Potentially suitable habitat is present in the PSW and contiguous woodland on Adjacent Lands. No individuals documented during the 10 July 2021 site assessment within the Subject Property.	Negligible. Development and site alteration activities are >30 m from the woodland and contiguous PSW, which has the greatest likelihood of providing breeding habitat for this species.
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	SC	OBBA	<ul style="list-style-type: none"> Breeds and forages in hayfields, savannahs, pastures, meadows, grasslands, and prairies. 	Negligible. Suitable breeding habitat is absent.	--
Wood Thrush (<i>Hylocichla mustelina</i>)	SC	OBBA, Dillon (2016)	<ul style="list-style-type: none"> Breeds and forages in second-growth and mature deciduous and mixed forests with a well-developed understory. 	Possible. Potentially suitable habitat is present in the PSW and contiguous woodland on Adjacent Lands. This species is known to occur in the natural area south of Elgin Park Drive (per Dillon Consulting 2016).	Negligible. Development and site alteration activities are >30 m from the woodland and contiguous PSW, which has the greatest likelihood of providing breeding habitat for this species.
Insects					
Monarch (<i>Danaus plexippus</i>)	SC	iNaturalist	<ul style="list-style-type: none"> Oviposits on Milkweeds (<i>Asclepias</i> spp.). Generalist foraging that nectars in most areas with wildflowers. 	Possible. Ovipositing sites (i.e., species in the genus <i>Asclepias</i>) and foraging habitat may be present on Adjacent Lands, and species may forage on the Subject Property.	Negligible. Areas of proposed development and disturbance lack Milkweed. The landscape surrounding the Subject Property provides foraging and ovipositing sites for this species.

Species	Status per O. Reg. 242/08 under the ESA and/or NHIC	Rationale for Consideration in this Study	General Description of Habitats and Features which the Species is Known to Occupy or Use within the Ecoregion in which this Study is Located	Likelihood that the Species Occupies the Area within or adjacent to proposed Development or Site Alteration ¹	Likelihood that Negative Effects to the Species or its Habitat (i.e., “degradation that threatens the health and integrity” as defined in the 2014 PPS) will occur based on the Proposed Development Plan and any related Site Alteration Activities.
Yellow Banded Bumble Bee (<i>Bombus terricola</i>)	SC	--	<ul style="list-style-type: none"> Occupies a range of open areas with nectaring sites. Nests underground in abandoned rodent burrows or decomposing logs. 	Possible. Species is a habitat generalist and occupies a wide range of areas.	Negligible. Proposed development and disturbance will not adversely affect foraging opportunities for this species, as ample potentially suitable habitat is present on the landscape, including natural lands to the east of the Subject Property.
Plants					
Schweinitz’s Sedge (<i>Carex schweinitzii</i>)	S3	NHIC	<ul style="list-style-type: none"> Occupies calcareous wetlands and the edge of streambanks, often in areas of groundwater discharge. 	Possible. Potentially suitable habitat is present along Uxbridge Brook and the PSW on Adjacent Lands.	Negligible. Development and site alteration activities are >50 m from the PSW boundary (and watercourse therein), which have the greatest likelihood of supporting this species.
Reptiles					
Eastern Ribbonsnake (<i>Thamnophis saurita</i>)	SC	Ontario Herp Atlas	<ul style="list-style-type: none"> Occupies edges of shallow ponds, streams, marshes, swamps, or bogs bordered by dense vegetation. 	Possible. Potentially suitable habitat is present in the PSW on Adjacent Lands.	Negligible. Development and site alteration activities are >50 m from the PSW boundary, which has the greatest likelihood of supporting this species. Subject Property does not bisect areas of suitable habitat and is not expected to act as a movement corridor.
Northern Map Turtle (<i>Graptemys geographica</i>)	SC	Ontario Herp Atlas	<ul style="list-style-type: none"> Occupies lakes and large rivers with slow moving currents. Nests in exposed, usually coarse, friable substrate. 	Negligible. Potentially suitable habitat is absent.	--
Snapping Turtle (<i>Chelydra serpentina</i>)	SC	NHIC, iNaturalist, Ontario Herp Atlas	<ul style="list-style-type: none"> Occupies a variety of aquatic habitats with slow moving water. Nests in exposed, usually coarse, friable substrate. Known to make long-distance overland movements (i.e., several kilometers) between habitats. 	Possible. Potentially suitable habitat is present in the PSW / Uxbridge Brook on Adjacent Lands.	Negligible. Development and site alteration activities are >50 m from the PSW boundary, which has the greatest likelihood of supporting this species. Subject Property does not bisect areas of suitable habitat and is not expected to act as a movement corridor.

¹ Likelihood categories should be interpreted as follows:

Negligible: so limited that the assessed species can be assumed absent.

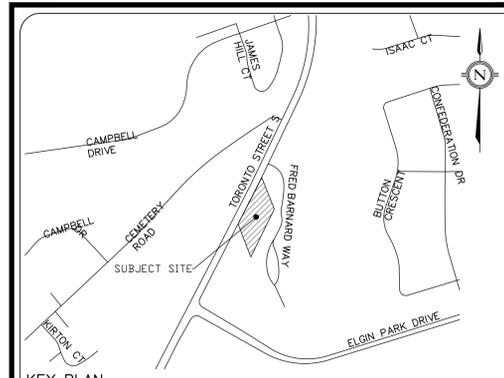
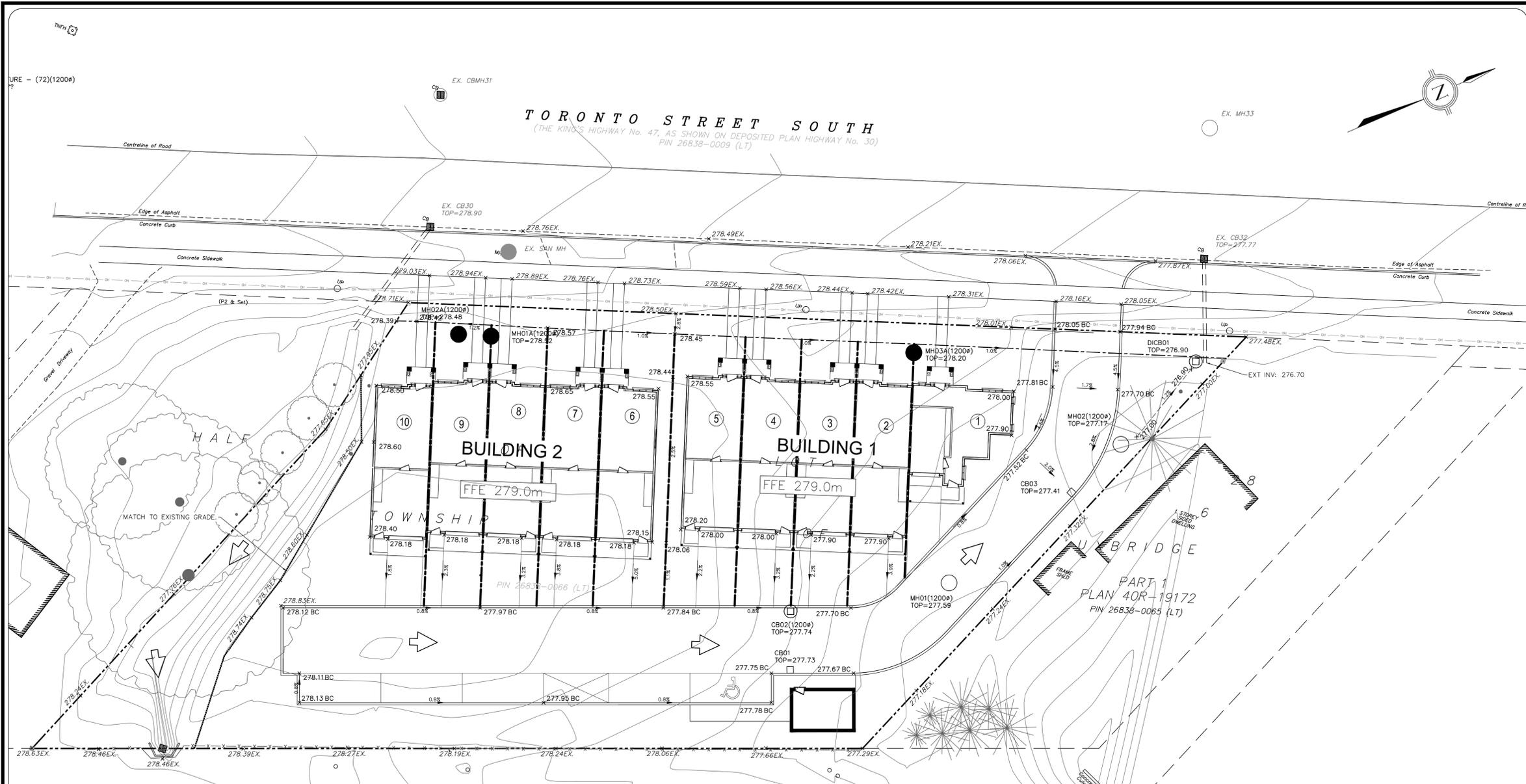
Unlikely: while theoretically conceivable, species presence very improbable or temporary based on available information (e.g., habitat conditions, range, abundance in local landscape, etc.).

Possible: species presence plausible based on available information; no convincing evidence suggesting species could not occur on-site.

Probable: while not confirmed, available information suggests species has a high likelihood of being present.

Confirmed: species observed and/or evidence of occupation (e.g., tracks, etc.) documented.

Appendix 6. Proposed Development Plan.



LEGEND

- EXISTING HYDRANT
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- PROPOSED STORM SEWER AND MH
- PROPOSED SANITARY SEWER AND MH
- PROPOSED HYDRANT AND VALVE
- PROPOSED VALVE AND BOX
- EXISTING ELEVATION
- EXISTING CONTOUR
- PROPOSED ELEVATION
- OVERLAND FLOW ROUTE
- PROPOSED WATERMAIN
- PROPERTY LINE
- PROPOSED SWALE

CONSTRUCTION NOTES

- GENERAL NOTES**
- THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
 - THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS PROVIDED BY OTHERS. THE INFORMATION IS SHOWN FOR GENERAL INFORMATION ONLY AND THE ACCURACY OR COMPLETENESS OF THE PROVIDED INFORMATION HAS NOT BEEN CONFIRMED BY COUNTERPOINT ENGINEERING INC. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
 - THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROADS, PARKING, CURBING, BUILDING LOCATION AND SETBACKS SHALL BE TAKEN FROM THE SITE PLAN PREPARED BY THE SITE ARCHITECT.
 - INSPECTIONS: ALL WORK IN THE MUNICIPAL RIGHT OF WAY AND EASEMENTS IS TO BE INSPECTED BY THE TOWNSHIP PRIOR TO BACKFILLING. ALL WORK RELATING TO WATERMANS AND SEWERS TO BE INSPECTED BY THE CITY AS PER THE SITE PLAN AGREEMENT.
 - ALL DISTURBED GRASSED AREAS TO BE RESTORED WITH MINIMUM 150mm TOPSOIL AND No. 1 NURSERY SOD.
 - A MINIMUM HORIZONTAL CLEARANCE OF 1.0m SHALL BE MAINTAINED BETWEEN ALL ABOVE GROUND SERVICES AND UTILITIES.
 - THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, UNLESS OTHERWISE NOTED HEREON OR PURSUANT TO CONDITIONS OF PERMIT APPROVALS. WHERE APPLICABLE, THE CONTRACTOR SHALL OBTAIN CITY ROAD OCCUPANCY PERMIT A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 - ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE CLARIFIED WITH THE ENGINEER.
 - ALL TRENCHING SHALL BE IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT. TRENCH SIDES SHALL BE FLATTENED IN ACCORDANCE WITH DIRECTIONS FROM THE GEOTECHNICAL ENGINEER. CONSTRUCTION OF SHORING, BRACINGS AND PROTECTION SCHEMES SHALL CONFORM TO O.P.S.S. 538 & 539.
 - ALL TRAFFIC CONTROL AND SIGNAGE SHALL BE IN ACCORDANCE WITH MTO'S "ONTARIO TRAFFIC MANUAL".

GRADING NOTES

- ALL DISTURBED GRASSED AREAS OUTSIDE OF PROPERTY LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER, WITH SOD ON MINIMUM 100mm TOPSOIL. ALL TREE AND SHRUB RELOCATION SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT.
- ALL UNSUITABLE SOIL OR SURPLUS MATERIAL OBTAINED FROM EXCAVATIONS TO BE DISPOSED OF OFF-SITE TO AN APPROVED DISPOSAL FACILITY THAT MEETS ALL ENVIRONMENTAL REGULATIONS AND GUIDELINES.
- EXCEPT WHERE INDICATED, ALL DIFFERENCES IN GRADE BETWEEN THIS SITE AND ADJOINING LANDS ARE TO BE TAKEN UP ON OWNER'S LAND WITH A MAXIMUM SLOPE OF ONE (1) VERTICAL AND THREE (3) HORIZONTAL, SODDED AND/OR PAVED.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING VEGETATION AND TREE PRESERVATION HOARDINGS IN AN APPROVED AND FUNCTIONING CONDITION AS REQUIRED.

CONFORMANCE REQUIREMENTS

- THE FOLLOWING ITEMS ARE TO BE PROVIDED TO COUNTERPOINT NO LESS THAN 10 WORKING DAYS PRIOR TO THE REQUEST FOR A LETTER OF GENERAL CONFORMANCE/FINAL CERTIFICATION. THE DOCUMENTS MUST INDICATE THAT THE SITE HAS BEEN CONSTRUCTED IN GENERAL CONFORMANCE WITH THE APPROVED DESIGN:
 - AS-CONSTRUCTED TOPOGRAPHIC/UNDERGROUND SURVEY COMPLETED BY A REGISTERED LAND SURVEYOR AS PER THE SPECIFICATIONS OUTLINED WITHIN THE CONTRACT DOCUMENT;
 - GEOTECHNICAL ENGINEER CERTIFICATION LETTER, WHICH INCLUDES SUB-GRADE COMPACTION RESULTS, BEDDING AND BACKFILL COMPACTION AND MATERIAL ACCEPTANCE, GRANULAR, ASPHALT, SITE CONCRETE MATERIAL ACCEPTANCE AND COMPACTION RESULTS;
 - CCTV INSPECTION OF FLUSHED STORM AND SANITARY PIPES AND STRUCTURES;
 - AIR/MANDEL TEST RESULTS FOR SANITARY SEWER (IF REQUIRED);
 - WATERMAIN PRESSURE, CHLORINATION AND BACTERIAL TEST RESULTS AND MUNICIPAL APPROVAL IF AVAILABLE.
- SHOULD THE SUBMITTED MATERIALS INDICATE NON-CONFORMANCE OR DEFICIENCIES, THEY MUST BE ADDRESSED TO COUNTERPOINT'S SATISFACTION WITH AN UPDATED SUBMITTAL PRIOR TO ISSUANCE OF A LETTER OF GENERAL CONFORMANCE/FINAL CERTIFICATION.
- COUNTERPOINT MUST ALSO COMPLETE ALL NECESSARY SITE INSPECTIONS AS OUTLINED IN THE APPROVED SERVICE PROGRAM, WITH ALL DEFICIENCIES ADDRESSED TO COUNTERPOINT'S SATISFACTION.

LEGAL & TOPOGRAPHY
 PROVIDED BY: BARIKH GRENKIE
 297 HWY No. 8 (UNIT 101)
 STONEY CREEK, ON, L8G 1E5
 PHONE: (905) 662-6767

BENCHMARK AND ELEVATION
 ELEVATIONS SHOWN ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928: 1978) AND ARE DERIVED FROM THE TOWNSHIP OF UXBRIDGE BENCHMARK No. 0011931U5175, HAVING AN ELEVATION OF 272.439 METERS. BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE BY REAL TIME NETWORK (RTN) OBSERVATIONS, UTM ZONE 17 (81°00' WEST LONGITUDE) NAD83 (CSRS) (2010.0). ORP 1 - NORTHING (4884511.823), EASTING (649875.665).

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counterpoint ENGINEERING
 COUNTERPOINT ENGINEERING INC.
 8395 Jane St., Suite 100, Vaughan, ON L4K 5Y2 Phone 905.326.1404 Fax 905.326.1405

APPLICANT:
MANSOUR ARAB/MAN HOLDINGS LTD
 174 DINNICK CRESCENT
 TORONTO, ONTARIO
 M4N 1M3

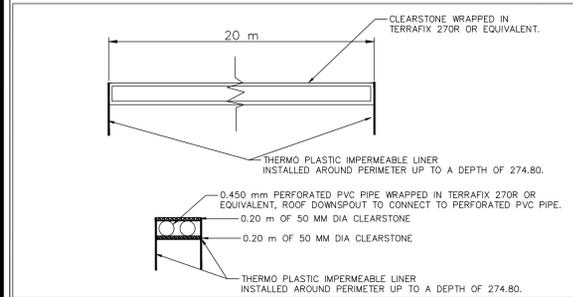
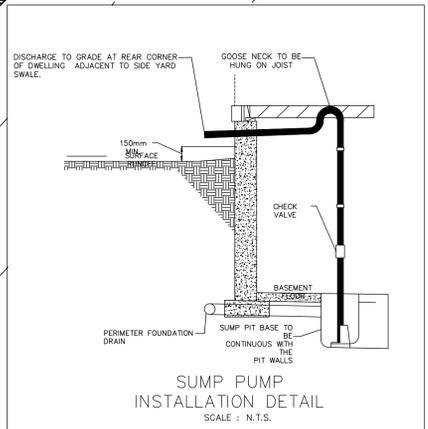
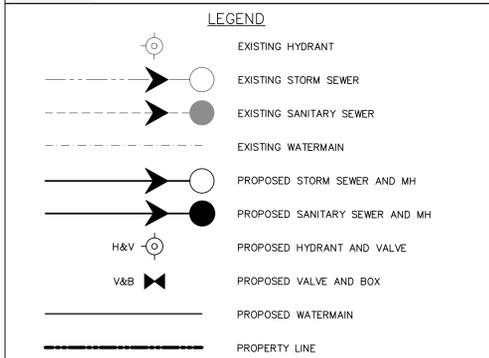
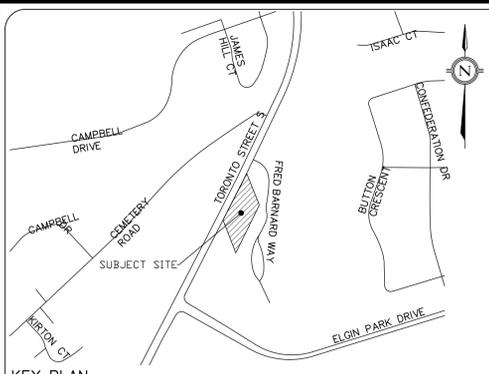
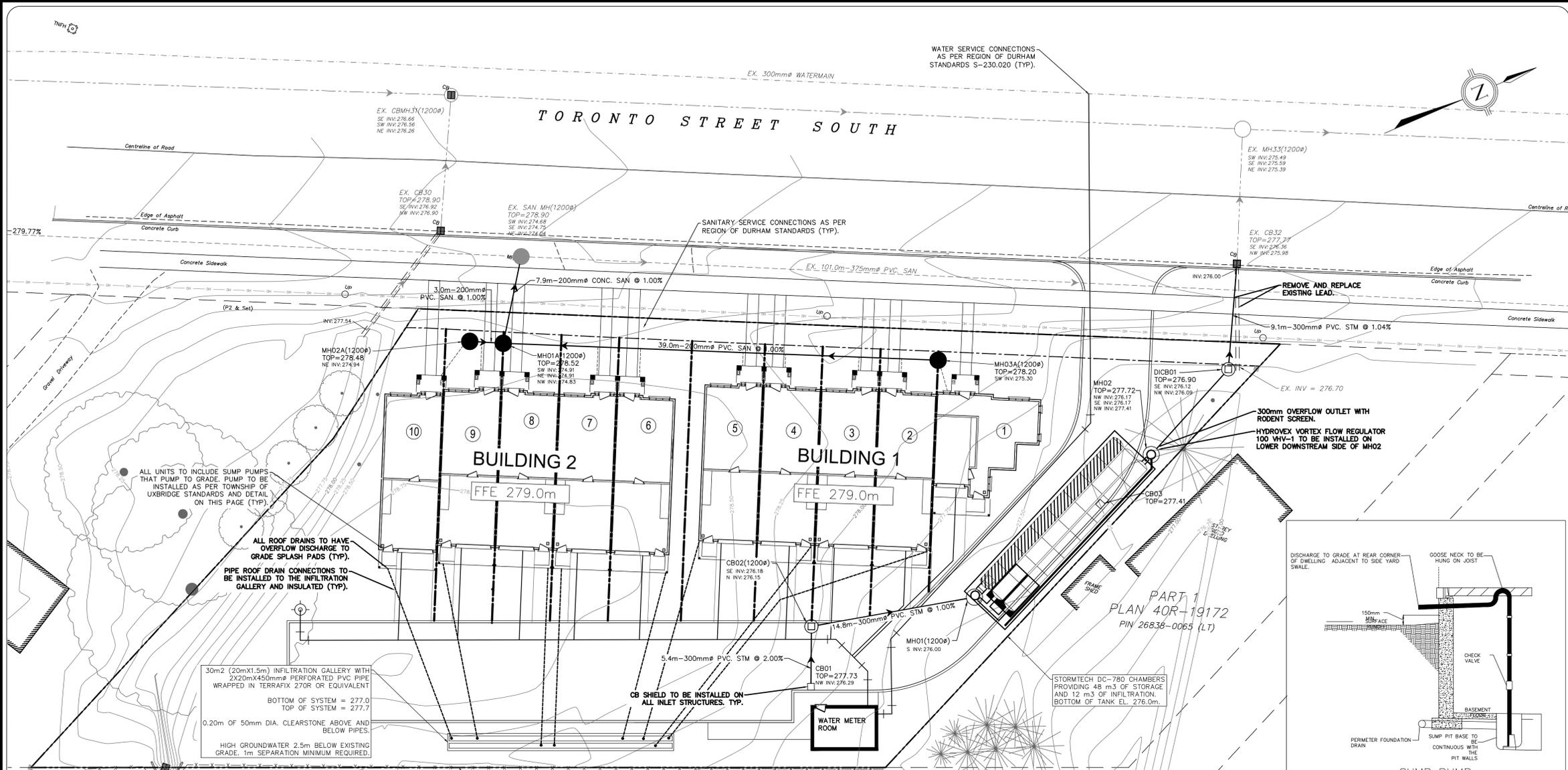
SITE LOCATION:
181 TORONTO STREET SOUTH
 UXBRIDGE, ONTARIO

SITE PLAN FILE No.:

GRADING PLAN

DESIGNED BY:	CHECKED BY:	DATE: APRIL 2021
DRAWING BY:	CHECKED BY:	PROJECT NO. 21026
SWM BY:	CHECKED BY:	DRAWING NO. C-1

SCALE: 1:200m



STORM AND SANITARY SEWER

- FOR CONSTRUCTION DETAILS NOT SHOWN ON PLANS, REFERENCE SHALL BE MADE TO REGION OF DURHAM STANDARDS AND SPECIFICATIONS, AND ONTARIO PROVINCIAL STANDARDS DRAWINGS AND SPECIFICATIONS.
- ALL STORM MANHOLES SHALL BE AS PER OPSD 701.010 TO 701.014 (SIZE AS SHOWN) WITH FRAME AND COVER AS PER OPSD 401.010. ALL STORM MANHOLES TO HAVE FRAME AND GRATE AS PER OPSD 400.020 UNLESS OTHERWISE SPECIFIED. SAFETY PLATFORMS TO BE INSTALLED IN ALL MANHOLES WHERE DEPTHS EXCEED 5.0m. THE MAXIMUM SPACING BETWEEN SAFETY GRATING SHALL NOT EXCEED 4.5m.
- ALL STORM SEWERS UP TO 450mm DIA., INCLUDING CATCHBASIN LEADS, SHALL BE PVC SDR-35 SEWER PIPE AND SHALL BE IN COMPLIANCE WITH OPSD 1841, CSA B182.2, CSA B182.3. SEALING GASKETS MUST MEET THE REQUIREMENTS OF ASTM D3034 OR ASTM F1760, CSA B182.2 OR CSA B182.7. IN ADDITION, THE PIPE JOINTS MUST BE ABLE TO WITHSTAND A MINIMUM HYDROSTATIC PRESSURE OF 345 kPa WITHOUT LEAKAGE. INJECTION-MOLDED GASKETED PVC FITTING SHALL MEET THE REQUIREMENTS OF ASTM D3034 AND ASTM F1336 AND SHALL BE CERTIFIED TO CSA B182.1 OR CSA B182.2. FABRICATED FITTINGS MUST CONFORM TO ASTM F1336 AND CSA B182.2.
- ALL STORM SEWERS 525mm OR LARGER SHALL BE REINFORCED CONCRETE COMPLYING WITH WITH C.S.A. SPECIFICATION A257.2. STANDARD MINIMUM CLASS OF CONCRETE SEWER SHALL BE AS PER OPSD 807.010 AND 807.030. RIGID PIPE REQUIRES CONCRETE ENCASEMENT FOR THE FIRST PIPE LENGTH CONNECTING TO ANY APPURTENANCES, WHERE CONCRETE PIPE SMALLER THAN 525mm IS SPECIFIED CLASS SHALL BE 100-0.
- PVC STORM SEWER BEDDING SHALL BE CLASS "P" BEDDING AS PER REGIONAL MUNICIPALITY OF DURHAM STANDARD S-200.010. CONCRETE STORM SEWER BEDDING SHALL BE OPSD GRANULAR "A" AS PER OPSD 802.030 CLASS "B". ALL BEDDING AND COVER MATERIAL ARE TO BE COMPACTED TO MINIMUM 95% SPMD WITH A MINIMUM 300mm SAND COVER OVER THE PIPE. WITHIN 0.5m OF SUBGRADE ELEVATION, BACKFILL TO BE COMPACTED TO 98% SPMD.
- SINGLE AND DOUBLE CATCH BASINS TO BE PRECAST AS PER OPSD 705.010 AND OPSD 705.020, WITH FRAME AND GRATE AS PER OPSD 400.020.
- CATCHBASIN LEADS TO HAVE MIN. COVER OF 1.5m BELOW FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
- ALL SANITARY MANHOLES SHALL BE 1200mm Ø AS PER OPSD 701.010 AND WATERTIGHT FRAME AND COVER AS PER OPSD 401.050.
- ALL SANITARY SEWERS SHALL BE PVC SDR 28 SEWER PIPE FOR 150mm DIA. & PVC SDR 35 SEWER PIPE FOR 200mm DIA. AND SHALL BE IN COMPLIANCE WITH ASTM D3034 OR ASTM F1760 AND THIRD PARTY CERTIFIED TO CSA B182.2 OR CSA B182.7. SEALING GASKETS MUST MEET THE REQUIREMENTS OF ASTM D3034 OR ASTM F1760, CSA B182.2 OR CSA B182.7. IN ADDITION, THE PIPE JOINTS MUST BE ABLE TO WITHSTAND A MINIMUM HYDROSTATIC PRESSURE OF 345 kPa WITHOUT LEAKAGE. INJECTION-MOLDED GASKETED PVC FITTING SHALL MEET THE REQUIREMENTS OF ASTM D3034 AND ASTM F1336 AND SHALL BE CERTIFIED TO CSA B182.1 OR CSA B182.2. FABRICATED FITTINGS MUST CONFORM TO ASTM F1336 AND CSA B182.2.
- BEDDING FOR SANITARY SEWERS SHALL BE 19mm CRUSHER RUN LIMESTONE COMPACTED TO 98% PROCTOR DENSITY FROM 100mm BELOW INVERT TO OBVERT, WITH 300mm SAND COVER ABOVE COMPACTED TO 98% PROCTOR DENSITY AS PER REGION STANDARD S-200.010 (CLASS "P"). WITHIN 0.5m OF SUBGRADE ELEVATION, BACKFILL TO BE COMPACTED TO 100% SPMD.
- ALL MANHOLE AND CATCHBASIN EXCAVATIONS TO BE BACKFILLED WITH OPSD 1010 GRANULAR "B"-TYPE 2 COMPACTED TO 98% SPMD. WITHIN 0.5m OF SUBGRADE ELEVATION, BACKFILL TO BE COMPACTED TO 100% SPMD.
- MANHOLES SHALL BE BENCHMARKED ACCORDING TO OPSD 701.021. STORM MANHOLES SHALL BE BENCHMARKED TO SPRING LINE UNLESS OTHERWISE SPECIFIED. CATCHBASIN TYPE MANHOLES TO BE PROVIDED WITH A MIN. 0.30m SUMP. SANITARY MANHOLES SHALL BE BENCHMARKED TO OBVERT.
- "MODULOC" OR APPROVED PRE-CAST MANHOLE AND CATCH BASIN ADJUSTERS TO BE USED TO SET STRUCTURES TO FINAL GRADE. PARGE ADJUSTING UNITS ON THE OUTSIDE ONLY.
- SERVICES TO BUILDINGS TO BE TERMINATED 1.5m FROM THE STREELINE UNLESS OTHERWISE NOTED.
- DROP STRUCTURES AS PER DURHAM REGION STANDARD DETAIL S-100.08, TYPE 'B'.
- VERTICAL AND HORIZONTAL LASER ALIGNMENT CONTROL TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
- THE CONTRACTOR IS TO FLUSH AND PROVIDE CCTV CAMERA INSPECTIONS OF ALL SANITARY AND STORM SEWERS, INCLUDING PICTORIAL REPORT AND TWO (2) CD's, TO COUNTERPOINT ENGINEERING, PRIOR TO PLACEMENT OF ASPHALT AT PRELIMINARY ACCEPTANCE, AND AT FINAL ACCEPTANCE.
- SANITARY SERVICE CONNECTIONS TO BE 100mm Ø GREEN PVC, INSTALLED TO THE REGION OF DURHAM STANDARD DRAWING S-230.010.
- WATERMAIN SEPARATION AS PER MOE REQUIREMENTS CONTAINED IN MOE DOCUMENT PROCEDURE F-5-1. PROCEDURES TO COVER THE SEPARATION OF SEWERS AND WATERMANS UNDER NORMAL CONDITIONS. WATERMANS SHOULD BE LAID WITH AT LEAST 2.5 METERS HORIZONTAL SEPARATION FROM ANY SEWER OR SEWER MANHOLE; THE DISTANCE SHALL BE MEASURED FROM THE NEAREST EDGES. UNDER NORMAL CONDITIONS, WATERMANS SHALL CROSS ABOVE SEWERS WITH SUFFICIENT VERTICAL SEPARATION TO ALLOW FOR PROPER BEDDING AND STRUCTURAL SUPPORT OF THE WATERMAIN AND SEWER MAIN. WHEN IT IS NOT POSSIBLE FOR THE WATERMAIN TO CROSS ABOVE THE SEWER, THE WATERMAIN PASSING UNDER A SEWER SHALL BE PROTECTED BY PROVIDING:
 - A VERTICAL SEPARATION OF AT LEAST 0.5 METRES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATERMAIN.
 - ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.
 - THAT THE LENGTH OF WATER PIPE SHALL BE CENTRED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE SEWER.
- ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING SYSTEMS IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING IN ACCORDANCE WITH THE REGION OF DURHAM REQUIREMENTS.
- ALL WATERMANS AND FIREMANS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH ALL LOCAL MUNICIPAL AND PROVINCIAL REQUIREMENTS. DISPOSAL OF CHLORINATED WATER TO BE IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
- WATER SERVICE CONNECTIONS TO BE 19mm Ø TYPE "K" COPPER, INCLUDING CURB STOPS AND VALVE BOXES LOCATED AT THE PROPERTY LINE.

WATER SERVICING NOTES

- WATERMANS AND APPURTENANCES SHALL BE AS PER REGION OF DURHAM STANDARDS AND SPECIFICATIONS.
- WATERMANS SHALL BE POLYVINYL CHLORIDE (PVC) CLASS 150, DR 18 CONFORMING TO AWWA C-900.
- ALL PIPE FITTINGS SHALL BE CAST IRON, CEMENT LINED MECHANICAL JOINT, SHORT BODY CONFIRMING TO AWWA C110 IRON FITTINGS OR AWWA C135 FOR DUCTILE IRON FITTINGS. FITTINGS SHALL BE SUPPLIED WITH MECHANICAL JOINT TYPE ENDS AWWA C111.
- WATERMAIN BEDDING SHALL BE 19mm CRUSHER RUN LIMESTONE COMPACTED TO 98% PROCTOR DENSITY FROM 100mm BELOW INVERT TO OBVERT, WITH 300mm SAND COVER ABOVE COMPACTED TO 98% PROCTOR DENSITY AS PER REGION STANDARD S-200.010 (CLASS "P"). WITHIN 0.5m OF SUBGRADE ELEVATION, BACKFILL TO BE COMPACTED TO 100% SPMD.
- ALL BENDS, TEES, JOINTS, ETC., ARE TO BE RESTRAINED WITH THRUST BLOCKS AS PER OPSD 1103.010 & OPSD 1103.020.
- TRACER WIRE SHALL BE INSTALLED ON ALL PVC WATERMAIN AS PER REGION STANDARD DRAWING S-201.030. TRACER WIRE SHALL BE No. 12 GAUGE (CANADIAN WIRE STRANDED T.W.V., 75C 600V OR APPROVED EQUIVALENT).
- ANODES FOR METAL FITTING TO BE 5.4 kg ZINC AS PER REGION SPECIFICATIONS. CATHODIC PROTECTION FOR WATERMANS TO BE PER REGION STANDARD DRAWING S-201.030. CATHODIC PROTECTION SHALL BE PROVIDED ON ALL BURIED METAL PIPES AND FITTINGS.
- WATERMANS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 1.8m FROM PROPOSED GRADES WITH A MINIMUM HORIZONTAL SPACING OF 2.5m HORIZ FROM STORM AND SANITARY SEWERS AND 2.0m HORIZ FROM GAS MAINS AND OTHER WIRE CONDUITS. IN PRE-GRADE OR EXISTING UNDEVELOPED AREAS COVER SHALL BE FROM PRE-GRADE EXISTING ELEVATIONS.

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- COUNTERPOINT MUST ALSO COMPLETE ALL NECESSARY SITE INSPECTIONS AS OUTLINED IN THE APPROVED SERVICE PROGRAM, WITH ALL DEFICIENCIES ADDRESSED TO COUNTERPOINT'S SATISFACTION.

CONSTRUCTION NOTES

- GENERAL NOTES**
- THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND PREVENT CONSTRUCTION CONFLICTS.
 - THE INFORMATION SHOWN FOR EXISTING UTILITIES WAS PROVIDED BY OTHERS. THE INFORMATION IS SHOWN FOR GENERAL INFORMATION ONLY AND THE ACCURACY OR COMPLETENESS OF THE PROVIDED INFORMATION HAS NOT BEEN CONFIRMED BY COUNTERPOINT ENGINEERING INC. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL EXISTING UTILITIES MUST BE LOCATED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. ANY VARIANCE IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER. LOST TIME DUE TO FAILURE OF THE CONTRACTOR TO CONFIRM UTILITY LOCATIONS AND NOTIFY THE ENGINEER OF POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.
 - THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROADS, PARKING, CURBING, BUILDING LOCATION AND SETBACKS SHALL BE TAKEN FROM THE SITE PLAN PREPARED BY THE SITE ARCHITECT.
 - INSPECTIONS: ALL WORK IN THE MUNICIPAL RIGHT OF WAY AND EASEMENTS IS TO BE INSPECTED BY THE TOWNSHIP PRIOR TO BACKFILLING. ALL WORK RELATING TO WATERMANS AND SEWERS TO BE INSPECTED BY THE CITY AS PER THE SITE PLAN AGREEMENT.
 - ALL DISTURBED GRASSED AREAS TO BE RESTORED WITH MINIMUM 150mm TOPSOIL AND NO. 1 NURSERY SOO. A MINIMUM HORIZONTAL CLEARANCE OF 1.0m SHALL BE MAINTAINED BETWEEN ALL ABOVE-GROUND SERVICES AND UTILITIES.
 - THE CONTRACTOR SHALL NOTIFY THE TOWNSHIP A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, UNLESS OTHERWISE NOTED HEREON OR PURSUANT TO CONDITIONS OF PERMIT APPROVALS. WHERE APPLICABLE, THE CONTRACTOR SHALL OBTAIN CITY ROAD OCCUPANCY PERMIT A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 - ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE CLARIFIED WITH THE ENGINEER.
 - ALL TRENCHING SHALL BE IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT. TRENCH SIDES SHALL BE FLATTENED IN ACCORDANCE WITH DIRECTIONS FROM THE GEOTECHNICAL ENGINEER. CONSTRUCTION OF SHORING, BRACING AND PROTECTION SCHEMES SHALL CONFORM TO OPSD 538 & 539.
 - ALL TRAFFIC CONTROL AND SIGNAGE SHALL BE IN ACCORDANCE WITH MTO'S "ONTARIO TRAFFIC MANUAL".

LEGAL & TOPOGRAPHY
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 PHONE: (905) 662-6767

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APPLICANT:
MANSOUR ARAB/MAN HOLDINGS LTD
 174 DINNICK CRESCENT
 TORONTO, ONTARIO
 M4N 1M3

SITE LOCATION:
181 TORONTO STREET SOUTH
 UXBRIDGE, ONTARIO

SITE PLAN FILE NO.:

SERVICING PLAN

DESIGNED BY:	CHECKED BY:	DATE: APRIL 2021
DRAWING BY:	CHECKED BY:	PROJECT NO. 21026
SWM BY:	CHECKED BY:	DRAWING NO. C-2
SCALE: 1:200m	0m 4m 8m 12m	