NATURAL ENVIRONMENT ASSESSMENT REPORT

EXISTING CONDITIONS and PRELIMINARY IMPACT ASSESSMENT

Improvements to Williams Parkway from Dixie Road to Torbram Road Municipal Class Environmental Assessment Study

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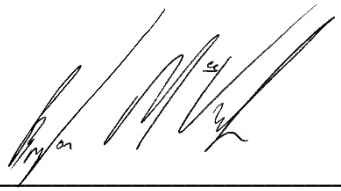

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Version	Date	Description
1	December 20, 2022	Draft Existing Conditions (Draft Rev 0)
2	March 27, 2023	Revised Draft Existing Conditions (Draft Rev 1)
3	November 28, 2024	Revised Draft Existing Conditions and Preliminary Impact Assessment (Draft Rev 2)
4	December 12, 2024	Final Natural Environment Assessment Report

Acronyms

ANSI	Area of Natural and Scientific Interest
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DBFP	Downtown Brampton Flood Protection
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
ELC	Ecological Land Classification
ESA	Endangered Species Act
ESC	Erosion and Sediment Control
LIO	Land Information Ontario
MBCA	Migratory Birds Convention Act
MCEA	Municipal Class Environmental Assessment
MECP	Ministry of Environment, Conservation and Parks
MNR	Ministry of Natural Resources
NEA	Natural Environment Assessment
NHA MaM	Natural Heritage Areas Make-a-Map
NHIC	Natural Heritage Information Centre
NHS	Natural Heritage System
OBBA	Ontario Breeding Bird Atlas
ORAA	Ontario Reptile and Amphibian Atlas
O. Reg.	Ontario Regulation
PPS	Provincial Policy Statement
ROW	Right-of-Way
SAR	Species at Risk
SARA	Species at Risk Act
SARO	Species at Risk in Ontario
SoCC	Species of Conservation Concern
SWH	Significant Wildlife Habitat
SWHTG	Significant Wildlife Habitat Technical Guide
TMP	Transportation Master Plan
TRCA	Toronto Region Conservation Authority

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1. Introduction

1.1 Project Overview

Parsons was retained by the City of Brampton to complete a Schedule "A+" Municipal Class Environmental Assessment (MCEA) for improvements to Williams Parkway from Dixie Road to Torbram Road ("the Project") in the Regional Municipality of Peel. The proposed Williams Parkway Improvements are recommended to be completed by 2041 as documented in the City of Brampton's (2015) Transportation Master Plan (TMP) to address the need for additional capacity and connectivity in the road network. In support of the MCEA, this Natural Environment Assessment (NEA) report has been prepared to document existing conditions, contribute to the evaluation of alternative solutions and design concepts, and identify constraints, preliminary impacts, and future considerations, based on the preliminary design for the preferred solution.

1.2 Study Objectives

This NEA documents existing conditions within a 120 m radius of the Williams Parkway MCEA project extent, herein known as the "study area", shown in **Appendix A, Figure 1**.

The scope of this report includes the following study objectives summarized below:

- Characterize existing conditions including identification of woodlots, vegetation and vegetation communities, wetlands, watercourses, wildlife and wildlife habitat, and other designated areas such as Environmentally Sensitive / Significant Areas, and Areas of Natural Scientific Interest (ANSI's);
- Species at Risk (SAR) screening of terrestrial and aquatic species;
- Utilize the Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC) database, and determine areas regulated under Ontario Regulation 166/06;
- In-season field survey for flora, fauna, aquatic and terrestrial habitat delineation and classification;
- Assessment and documentation of flora, fauna, aquatic species and habitat, stream and valley corridors, natural heritage features and functions following the Ecological Land Classification (ELC) and significant wildlife habitat (SWH) technical guide (2000) and SWH Criteria Schedule for Ecoregion 6E and 7E (Ministry of Natural Resources [MNR] 2015a & 2015b);
- Tree inventory and vegetation assessment by a qualified arborist to determine the total trees within the Tree Inventory Area.
- Preliminary impact assessment to identify likely impacts of the preliminary design of the preferred alternative on trees, designated areas, terrestrial and aquatic ecosystems, and SAR.

This NEA includes results of the field investigations (e.g. tree inventory, wetlands, ELC, fish habitat assessment) which were completed between July 14 and 20, 2022, and on August 3, 2022, to capture the peak growing season and verify habitat potential for Species of Conservation Concern (SoCC) and SAR. The NEA also includes a preliminary impact assessment and recommendations of best practices such as timing windows to protect species and potential future approvals/permits.

1.3 Limitations

This report is based on the existing conditions as observed at the time of site visits carried out in 2022. Report updates have addressed changes in policy and design up to November 2024, however, have not included additional site visits. The impact assessment provided herein is preliminary and is intended for information and planning purposes. Existing conditions and impacts should be refined and reconfirmed at detailed design.

The tree inventory completed under this scope is intended for high level impact assessment and is not intended for design use or hazard assessment. Tree health assessments were based on visual observation from ground level. Trees are living organisms and are subject to change over time, including changes in health and vigor, growth, presence of pests and pathogens, and structural failures. It is best practice to obtain any necessary permits for tree removal or injury within 1 year of the tree inventory, where possible. Select trees were assessed from a distance due to safety concerns (terrain, poisonous vegetation, etc.); permission to enter private property was not obtained at the time of the field investigation and any trees located outside of the municipal Right-of-Way (ROW) or other public lands were assessed from a distance. Trees assessed from a distance may have defects that were not visible from the arborist's vantage point. Location information may be subject to 5-10 m offset, particularly for trees assessed from a distance. Additional site visits to capture high accuracy (1 m accuracy or better) locations of trees as well as updated dripline and condition, are anticipated before impacts can be confirmed.

2. Regulatory Framework

The Project is subject to the guiding policies and protections of the natural environment on federal, provincial, and municipal levels as described below.

2.1 Federal

2.1.1 FISHERIES ACT

The *Fisheries Act* sets out provisions to protect fish and fish habitat. In 2018, amendments were made to the *Act* with the aim to provide for the sustainability, proper management and control of fisheries and to restore lost protections to ensure the conservation and protection of fish and fish habitat, including the prevention of pollution.

The *Fisheries Act* requires that projects avoid causing the death of fish and the harmful alteration, disruption or destruction of fish habitat unless authorized by the Minister of Fisheries and Oceans Canada (DFO) or a designated representative. As per amendments made to the *Fisheries Act* in 2018, proponent's have the responsibility to follow the measures to protect fish and fish habitat during the implementation of proposed projects in or near water to avoid potential impacts of the project resulting in the death of fish or the harmful alteration, disruption or destruction (HADD) of fish habitat, as defined by The Act. Should the project activities follow the specific criteria outlined within the measures to protect fish and fish habitat, the project can proceed without DFO review. However, should the project activities not meet the DFO measures to protect fish and fish habitat criteria, the project may result in the death of fish or the HADD of fish habitat and would require further review by DFO under the *Fisheries Act*.

2.1.2 SPECIES AT RISK ACT, 2002

The federal *Species at Risk Act, 2002* (SARA) includes provisions for the protection of species that are classified as Extirpated, Endangered and Threatened in Schedule 1 of the *Act*. This includes protection to the species and their residence (e.g., nest, den), including critical habitat. Critical habitat is defined as those habitats necessary for the survival or recovery of a listed species, as identified in the recovery strategy or in an action plan for the species. While SARA applies to species on federal land, such as Canadian oceans and waterways, national parks, national wildlife areas, some migratory bird sanctuaries and First Nations reserve lands, it also applies to migratory birds protected under the MBCA and fish, anywhere they occur. Under section 73 of the *Act*, the competent minister may enter into an agreement or issue a permit authorizing an activity affecting a listed wildlife species, any part of its critical habitat, or the residences of its individuals and provided that the activity fall meets the following purposes:

- The activity is scientific research relating to the conservation of the species and conducted by qualified persons
- The activity benefits the species or is required to enhance its chance of survival in the wild; or
- Affecting the species is incidental to the carrying out of the activity.

2.1.3 MIGRATORY BIRDS CONVENTION ACT, 1994

The *Migratory Birds Convention Act, 1994* (MBCA) and associated Regulations have the goal of ensuring the conservation of migratory bird populations by regulating potentially harmful human activities. Environment and Climate Change Canada administers the MBCA through the Migratory Birds Regulations and Migratory Birds Sanctuary Regulations. The MBCA protects migratory birds listed in the Act and applies to all lands in Canada regardless of ownership.

Additionally, updated regulations to the *Act*, adopted in 2022, include provisions for the year-round protection of nests of 18 species of migratory birds, identified on Schedule 1 of the *Act*, which reuse nests. Removal of the inactive nests of these species requires that either notification be provided to ECCC through the Abandoned Nest Registry, or that a species-specific waiting period of 18-36 months be respected in order to establish a nest as abandoned. In the study area, potential Schedule 1 species include Pileated Woodpecker as well as herons and egrets.

Under Section 5 of the MBCA, killing or harming listed migratory birds and/or disturbing or destroying their nests or eggs is prohibited without authorization. Compliance under the MBCA is typically mitigated through avoidance, such as adhering to timing windows for works that may impact species to occur outside of the active breeding window (e.g., April 1 – August 31), where feasible. Works can occur during the active period provided that the activities do not impact the species. If activities are occurring in bird habitat during the breeding period, nest sweeps should be completed prior to any works to minimize risk of injury or incidental take. Permits are not issued for potential for incidental take except where there may be risk to human health and safety.

2.2 Provincial

2.2.1 ENDANGERED SPECIES ACT, 2007

The *Endangered Species Act, 2007* (ESA; MECP 2008) applies to species that are designated as Extirpated, Endangered or Threatened and listed on the Species at Risk in Ontario (SARO) List (Ontario Regulation [O.Reg.] 230/08). The ESA includes provisions to ensure protection to the species and their habitat. Species designated as Special Concern are not given species or habitat protection under the Act. General habitat protection applies to all Endangered and Threatened species with species-specific habitat protection also given to those species with regulated habitat, as identified in Ontario Regulation 242/08.

In order to balance protection and recovery goals with social and economic considerations, the ESA also gives the Minister of Environment, Conservation and Parks (MECP) the authority to issue permits or enter into agreements with proponents in order to authorize activities which would otherwise be prohibited by subsections 9(1) or 10(1) of *The Act*. The provisions under section 17 (2) of the ESA include the authorization of activities that would otherwise contravene the Act through the issuance of an Overall Benefit Permit as long as an overall benefit to the species in Ontario is provided. Ontario Regulation 242/08 also outlines various exemptions or agreements that may be employed under The Act, which are project or species-specific (MECP 2008). This may include registering the project activities and preparing a mitigation plan through a streamlined approval process.

2.2.2 PROVINCIAL POLICY STATEMENT, 2024

The natural heritage policies of the Provincial Planning Statement, 2024 (PPS.) was issued under section 3 of the *Planning Act*; and came into effect October 20, 2024 (Ministry of Municipal Affairs and Housing (MMAH 2024) and replaces the Provincial Policy Statement that came into effect on May 1, 2020.

The natural heritage policies of the PPS (Section 4.1) indicate that natural features shall be afforded long term protection such as maintenance, restoration, and improved function of diversity, connectivity, ecological function, and biodiversity of natural heritage systems as noted below.

4.1.4 Development and site alteration will not be permitted in:

a. significant wetlands in Ecoregions 5E, 6E and 7E; and,
b. significant coastal wetlands.

4.1.5 Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions, development and site alteration will not be permitted in:

a. significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E;
b. significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River);
c. significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River);
d. significant wildlife habitat;
e. significant areas of natural and scientific interest; and,
f. coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 4.1.4(b).

4.1.6 Development and site alteration will not be permitted in fish habitat except in accordance with provincial and federal requirements;

4.1.7 Development and site alteration will not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements;

4.1.8 Development and site alteration will not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5 and 4.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions; and,

4.1.9 Nothing in policy 4.1 is intended to limit the ability of agricultural uses to continue.

Development is defined in the PPS as "*the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act*". Among other things, "*activities that create or maintain infrastructure authorized under an environmental assessment process*" are not considered development (MMAH 2024). Notwithstanding, avoidance or minimization of impacts on natural heritage features is considered an objective when planning, designing, and constructing infrastructure projects.

2.2.3 GREENBELT ACT

The Greenbelt Plan (MMAH 2017) derives its authority from the *Greenbelt Act, 2005* and sets out objectives and policies related to lands that are designated as Greenbelt Area (O. Reg. 59/05). The Greenbelt Area includes lands covered by the Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan, the Parkway Belt West Plan Area, lands designated as Urban River Valley and lands designated as Protected Countryside. The Plan contains policies related to each type of land designation and "informs decision-making to permanently protect the agricultural land base and the ecological and hydrological features, areas and functions occurring on this landscape" (Section 1.4.1). The study area does not overlap with any Greenbelt Plan areas.

2.2.4 CONSERVATION AUTHORITIES ACT

Section 28(1) of the *Conservation Authorities Act* (MNR 1990) empowers Conservation Authorities (CAs) with the ability to make regulations governing development that can have an impact to watercourses and waterbodies, including wetlands. The study area overlaps with the "TRCA Regulated Areas" which are regulated by the TRCA under the Conservation Authorities Act, Part IV – Regulation of Areas Under Which Authorities Have Jurisdiction, Section 28 (1) and may require approval under Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits. Works may be permitted if it can be demonstrated through appropriate technical studies and/or assessments that the activities will not have an adverse effect work on the regulated feature.

The study area, where it borders and/or traverses watercourses, is within the TRCA Regulated Area (see **Appendix A, Figure 1**). Consultation with TRCA is recommended to discuss any permitting requirements for proposed works within the Regulated Area.

2.2.5 ENVIRONMENTAL ASSESSMENT ACT, 1990

The *Environmental Assessment Act*, 1990 (MECP 1990) sets out a planning and decision-making process so that potential environmental effects are considered before a project begins in the province of Ontario. The Municipal Class Environmental Assessment Process is an approved process under the *Environmental Assessment Act* for municipal infrastructure projects.

2.3 Municipal

2.3.1 OFFICE CONSOLIDATION OF THE CITY OF BRAMPTON 2006 OFFICIAL PLAN, 2020

The City's Consolidated Official Plan (City of Brampton 2020) establishes a comprehensive framework to guide the City's future growth and development. The objectives and policies of the Official Plan provide direction for the physical development and land-use decisions of the City, while having regard for relevant social, cultural, economic, and environmental matters.

The natural heritage designations, policies and permitted uses are provided in Section 4.6.6 and identified on Schedule "D" of the Official Plan. Designated features that make up the Natural Heritage System (NHS) within the City of Brampton are:

- Valleylands and Watercourse Corridors[1]
- Woodlands
- Wetlands (Provincially Significant Wetlands and Other Wetlands)
- Environmentally Sensitive/ Significant Areas
- Areas of Natural and Scientific Interest (ANSI)
- Fish and Wildlife Habitat
- Provincial Greenbelt Plan Natural System

Development may be permitted within the NHS in accordance with the land use designations shown on Schedule A – General Land Use Designations and subject to the general policies in Section 4.6.6 and specific policies in Sections 4.6.7 to 4.6.13. The study area overlaps with several features within the City of Brampton's NHS, these features are designated as a Valleylands and Watercourse Corridors. Specific policies for the Valleylands and Watercourse Corridors designation are provided in **Section 4.2.3**.

This NEA is intended to meet the requirements of the Policies in the City's Consolidated Official Plan (City of Brampton 2020).

[1] Valleylands and Watercourse Corridors is also identified as Valleylands/Watercourses Corridors on Schedule D. The term Valleylands and Watercourse Corridors will be used in this NEA.

3. Study Approach

To document the existing conditions for the study area, consultation with agencies, a background review and field investigations to verify presence/absence of natural heritage features within the study area were completed. The following sections include a summary of information sources reviewed and field studies completed.

3.1 Background Review

The following sources were reviewed for information related to natural heritage features within the study area.

3.1.1 MINISTRY OF NATURAL RESOURCES

The following information sources from the Ministry of Natural Resources (MNR) were reviewed:

- **Ministry of Natural Resources Aurora District** – Information on natural heritage features within the study area was requested from the MNR Aurora District by way of email, dated July 7, 2022. The response from MNR, as received on July 20, 2022, is provided in **Appendix B**.
- **Land Information Ontario (LIO) Mapping** –LIO data is maintained by the MNR and provides key provincial geospatial data about Ontario. Shapefiles obtained from the LIO open datasets were obtained and used to map the natural features within the study area (**Appendix A, Figure 1**).
- **Natural Heritage Areas Make a Map (NHA MaM)** – The NHA MaM is a web application that provides information on provincial parks, conservation reserves, and natural features (i.e., ANSIs, wetlands, woodlands, natural heritage systems related to provincial policy plan areas (e.g., Niagara Escarpment, Oak Ridges Moraine and Greenbelt Plans). The NHA MaM also provides Natural Heritage Information Centre (NHIC) data, which includes information on plant communities, wildlife concentration areas, natural areas, SoCC (i.e., rare species), and SAR. The NHIC data is organized into 1 km^2 map squares. The map squares that overlap the Project include 17PJ0344, 17PJ0244, 17PJ0243, 17PJ0242 and 17PJ0142. A list of species from the background review is provided in **Appendix C**.

3.1.2 MINISTRY OF ENVIRONMENT CONSERVATION AND PARKS (MECP)

Project notification and a data request for information on SAR was sent to MECP on July 6, 2022. No response was received from MECP as of the date this report was written.

Recent direction from MECP has clarified that *Endangered Species Act* (ESA) Authorization or exemption is now a proponent-led process and indicates that the person carrying out the activity is responsible for determining whether SAR and their habitat are present on or around the site of the activity, and ultimately ensuring their actions do not contravene the ESA. The SAR screening should be completed by the proponent, or a qualified consultant should complete the SAR screening on their behalf. Additionally, MECP indicated that assessing which SAR may be present on or around the site should be completed following guidance outlined within MECP's draft "Client's Guide to Screening for Species at Risk". Results of the SAR screening and assessment should be documented including rationale for avoiding prohibited impacts as proponents are responsible for ensuring their actions do not contravene the ESA.

3.1.3 CITY OF BRAMPTON OFFICIAL PLAN

The City of Brampton Consolidated Official Plan (2020) policies and schedules were reviewed for designated Natural Heritage Features (NHF) in the study area and associated applicable policies. Designated features identified in Schedule "D": Natural Heritage Features and Areas are discussed in **Section 4.2**.

3.1.4 PUBLICLY AVAILABLE DATABASES

The following information sources from publicly available databases were reviewed:

- **Ontario Breeding Bird Atlas (OBBA)** – The OBBA (Cadman et al. 2007) was reviewed to determine which species have the potential to occur within the study area. The OBBA provides a list of bird species that have been observed within a 10 x 10 km2 area during surveys completed between 1981 and 1985 and 2001 and 2005. SAR that was documented between 2001 and 2005 were considered as part of this background review. The OBBA map square that overlaps the Project is 17PJ04. A list of species from the background review is provided in **Appendix C**.
- **Ontario Reptile and Amphibian Atlas (ORAA)** –The ORAA (Ontario Nature 2019) and interactive range maps were reviewed. The ORAA provides known ranges of reptiles and amphibian species in Ontario based on historic and current species occurrences. The information is displayed in 10 x 10 km2 map squares. The ORAA map square that overlap the Project is 17PJ04. A list of species from the background review is provided in **Appendix C**.
- **Ontario Butterfly Atlas (OBA)** – The OBA (Toronto Entomologists' Association 2019) was reviewed. The OBA provides known ranges of butterfly species in Ontario based on historic and current species occurrences. The information is displayed in 10 x 10 km2 map squares. The OBA map squares that overlap the Project are 17PJ04. A list of species from the background review is provided in **Appendix C**.
- **iNaturalist** – The NHIC and Herps of Ontario projects on iNaturalist were reviewed for records of herpetofauna and SoCC and SAR flora and fauna within the study area (iNaturalist 2024 & Ontario Nature 2021). iNaturalist is a citizen scientist web application that provides up to date records of species. A list of species documented on iNaturalist within the study area is provided in **Appendix C**.
- **Atlas of the Mammals of Ontario** – The Atlas of the Mammals of Ontario (Dobbyn 1994) was reviewed to determine which SAR have the potential to occur within the study area. A list of SAR documented from the atlas is provided in **Appendix C**.
- **Fisheries and Oceans Canada (DFO) Aquatic SAR Mapping** – Aquatic SAR mapping is made available by DFO (2024) through their online Aquatic SAR mapping tool. A review of the 2024 aquatic DFO mapping was completed to determine if SAR are present in the Tributary of Spring Creek and Mimico Creek within the study area.

3.1.5 TORONTO AND REGION CONSERVATION AUTHORITY

TRCA open data was accessed for mapping TRCA Regulated Areas, Target NHS, and ELC communities within the study area and adjacent lands. In addition, the Greater Toronto Airport Authority (GTAA) Living City Project Etobicoke Creek – The Aquatic System (TRCA 2006), and the Etobicoke and Mimico Creeks Watersheds Technical Report Update – Aquatic System – Instream Barriers to Fish Passage (TRCA 2010b) were reviewed and referenced where appropriate. TRCA's Jefferson, Jordan, and Jayfield Parks Habitat Restoration Project being completed in 2022 includes removing the concrete lining in Mimico Creek upstream of its crossing under Williams Parkway (City of Brampton 2022), were reviewed for mitigation measures and watercourse improvement possibilities.

3.1.6 DIXIE ROAD FROM QUEEN STREET TO 2KM NORTH OF MAYFIELD ROAD MCEA STUDY

Peel Region completed a Schedule 'C' MCEA study for Dixie Road Improvements from Queen Street to 2 km North of Mayfield Road. The 2011 EA Report prepared by AECOM was reviewed for terrestrial resources (e.g. vegetation communities) and aquatic species and habitat present within and adjacent to the study area.

3.1.7 TORBRAM ROAD FROM QUEEN STREET TO BOVAIRD DRIVE MCEA STUDY

The City of Brampton initiated a Schedule "C" MCEA Study for improvements to Torbram Road from Queen Street East to Bovaird Drive. Parsons prepared a draft EA report in 2017 which was reviewed for aquatic species and habitat present within and adjacent to the study area.

3.2 Species at Risk Assessment

This report considers SAR as species classified as Extirpated, Endangered, or Threatened and protected under the *Endangered Species Act, 2007* (ESA) and/or *Species at Risk Act, 2002* (SARA). This includes:

- Provincially protected species on the Species at Risk in Ontario (SARO) List under O. Reg. 230/08.
- Federally listed migratory birds and fish on Schedule 1 of SARA; these species are protected anywhere they occur, including non-federal lands. All other federally listed species are generally only protected under SARA if they occur on federal lands (except through an Order).

In this report, rare species that are not considered SAR are identified as SoCC. Habitat for SoCC is discussed under SWH (see definition in **Section 3.3**) which is consistent with the definitions and protocols under MNR's (2000) *Significant Wildlife Habitat Technical Guide* (SWHTG).

A screening of SAR records was undertaken to identify which of the reported species have the potential to occur within the study area. The screening identified potential species and spatial distributions collected through agency consultation and literature review. Available information regarding preferred habitat was compared to existing habitat identified within the study area during field assessments to determine if suitable habitat was present. An assessment of habitat potential for terrestrial and aquatic SAR within the study area is discussed further in **Section 4.8**.

3.3 Significant Wildlife Habitat Assessment

The MNR provides specific guidance on identifying and assessing wildlife habitat in the *SWH Criteria Schedules for Ecoregion 6E* (MNR 2015a) *and Ecoregion 7E* (MNR 2015b). Other guidance documents used as part of the SWH assessment included the SWHTG (MNR 2000) and the MNR (2010) *Natural Heritage Reference Manual*.

The MNR recognizes five main categories of wildlife habitat, each with several wildlife habitat types. The general definitions of these habitat types are provided below:

- **Seasonal Concentration Areas of Animals** – defined as "areas where animals occur in relatively high densities for the species at specific periods in their life cycles and/or in particular seasons" and areas that are "localized and relatively small in relation to the area of habitat used at other times of the year" (MNR 2010).
- **Rare Vegetation Communities** – defined as "areas that contain a provincially rare vegetation community and areas that contain a vegetation community that is rare within the planning area" (MNR 2010).
- Specialized Habitat for Wildlife – defined as "areas that support wildlife species that have highly specific habitat requirements, areas with high species and community diversity, and areas that provide habitat that greatly enhances species' survival" (MNR 2010).
- **Habitat for SoCC** – defined as "habitats of species that are designated at the national level as endangered or threatened by COSEWIC, which are not protected in regulation under Ontario's ESA; habitats of species listed as special concern under the ESA on the SARO List (formerly referred to as "Vulnerable" in the SWHTG); and habitats of species that are rare or substantially declining or have a high percentage of their global population in Ontario" (MNR 2010). More specifically, SoCC include:
    - **globally rare species** – These species are assessed by NatureServe and assigned a global conservation status rank (G-rank) of G1 to G3.
    - **nationally rare species** – These species are assessed by COSEWIC as Extirpated, Endangered, Threatened, or Special Concern but not listed in SARA; species not protected under SARA including those designated as Special Concern on Schedule 1 (e.g., Monarch [*Danaus plexippus*]) or any of the listed species in Schedule 2 and Schedule 3; species on non-federal land listed on Schedule 1 of SARA, other than migratory birds and fish.
    - **provincially rare species** – These species are designated and assessed under two categories: species listed as Special Concern on the SARO list, and species that are assigned a provincial sub-national conservation status rank of S1 to S3. There are species that can be found in both categories.

- **regionally or locally rare species** – These species are not assigned a formal designation, however, have been recognized as declining within a planning jurisdiction by government and/or non-government authorities.
- **conservation priority species** – These include priority species that are recognized in government and/or non-government conservation plans and assigned a conservation objective.

- **Animal Movement Corridors** – defined as "elongated, naturally vegetated parts of the landscape used by animals to move from one habitat to another" (MNR 2000).

An assessment of candidate SWH was completed for the study area following the protocols established by MNR. The SWH assessment was based on findings from the background review and field investigations and is discussed further in **Section 4.6**. As discussed in **Section 3.2**, SAR are excluded from the SWH process and are discussed independently in **Section 4.8**.

3.4 Field Investigations

Field investigations were completed to verify natural heritage features identified during the desktop study, including candidate SWH (including SoCC) and SAR habitat potential. Parsons completed terrestrial field investigations between July 14 and 20, 2022 and aquatic field investigations on August 3, 2022, which included aquatic and terrestrial habitat characterization, tree inventory and health assessment, botanical inventory, vegetation community categorization (ELC), and verifying any other natural heritage features identified from the background review. A photographic log is provided in **Appendix H**.

3.4.1 VEGETATION AND VEGETATION COMMUNITIES

The following sections include the methodology followed for completing the tree assessment, botanical inventory, invasive species mapping, and ELC (i.e., vegetation community characterization).

Tree Inventory and Assessment

A tree inventory fieldwork program was created and managed by an ISA Certified Arborist, which was completed for the Williams Parkway Road Right-of-Way (ROW) and immediately adjacent lands referred to as the 'Tree Inventory Area' in this report (**Appendix A, Figure 3**). The Tree Inventory Area is inclusive of trees 6 m from the existing roadway, as per industry standards.

Tree species, diameter at breast height (DBH), health and condition were recorded, based on visual assessments made from ground level. Qualitative attributes were assigned to each individual and grouping for Structural Condition and Health. This was further broken down in terms of Overall Health, Trunk Integrity, Canopy Structure and Crown Vigor. These qualities were ranked from a scale of Dead, Poor, Fair or Good according to the following definitions:

- Dead: The tree does not display any signs of live growth.
- Poor: The tree displays structural problems, mechanical damage, severe disease damage or reduced growth when compared to nearby trees. If there is greater than 40% dieback of main branches, evidence of advanced rot, or hollow trunk, this qualifier can be applied.
- Fair: The tree displays only minor damage from insects, disease or structure problems. If there are more than 40% viable branches despite medium levels of decline in condition in the lower canopy, this qualifier can be applied.
- Good: The tree displays healthy condition, including form and structure. There is no major structure damage, mechanical damage. Issues are small and may less than 15% of dieback in canopy.

Tree DBH for single stem trees were recorded directly in the field. Multi-stemmed trees required additional calculation to determine the Aggregated DBH using the following formula below:

*Aggregated DBH is calculated using the following formula:

$$DBH = \left(\sqrt{d1^2 + d2^2 + d3^2 + d4^2 + d5^2 + d6^2}\right)$$

Where d1, d2, etc. are each stem's dbh value.

The Critical Root Zone (CRZ) is the measure of area where roots are present and can be used to determine potential impacts to each tree when paired with preliminary design. It is calculated based on DBH (measured or aggregated) as being 10 cm from the trunk of a tree for every centimeter of trunk diameter. The CRZ was used to estimate the likelihood and extent of root impacts to trees.

Preliminary tree impacts are categorized into four groups with the following criteria for inventoried trees:

- Retain: Trees are located beyond 6 m of preliminary design components and are not expected to be impacted by Project works. Protection may be required for these trees should design, construction footprints, or staging areas encroach within 6 m. Trees located on Private Property that are behind a fenceline (i.e. in a private backyard), and where the CRZ does not overlap with preliminary design components, are also included in this category.
- Protect: Trees are located within 6 m of preliminary design components and are recommended for temporary tree protection fencing to prevent incidental impacts by Project works. Trees identified for protection may include those on Private property in instances where works may include removal of an existing fence (i.e. noise wall installation) or where works are expected to occur immediately adjacent to the CRZ and no existing barrier or fence is present.
- Injure: Trees with CRZs and/or driplines that overlap preliminary design components where there is less than 30% overlap between the CRZ and design components. Avoidance may be feasible for some trees identified as injuries, provided that the location, condition, and size are updated and considered at detailed design.
- Remove: Trees with CRZs and/or driplines that overlap preliminary design components where there is greater than 30% overlap between the CRZ and design components. Avoidance or injury may be feasible for some trees identified as removals, provided that the location, condition, and size are updated and considered at detailed design.

Additional injuries and removals may be required based on future updates to design, staging, and access routes. At this time, all trees that overlap with proposed noise walls have been indicated as Remove. Additional removals are expected to be required for access and post installations associated with noise walls. Detailed design should prioritize retention of healthy and mature canopy trees as well as those located on private property. Tree impacts are provided for preliminary information only and should be reconfirmed at detailed design. Locations of trees should be updated to 1 m spatial accuracy or better in order to inform design, avoidance, and mitigation measures. Tree condition and size should also be updated at detailed design. When evaluating design options, tree impacts will be considered, and during preliminary design, impacts will be minimized through avoidance where possible.

Botanical Inventory

A high-level botanical inventory, focused on tree and shrub species, was completed within the study area, specifically in the Tree Inventory Area (**Appendix A, Figure 3**) and adjacent natural lands as recorded through the ELC assessment. The conservation status of plant species recorded in the study area was assessed to determine the presence of SoCC and SAR. A floristic quality assessment, using the Southern Ontario FQA Database (Oldham *et. al.* 1995), was completed to determine the level of disturbance and overall quality of the vegetation / vegetation communities within the study area. The floristic quality assessment provides a snapshot of the overall tree and shrub diversity throughout the study area as a whole, with a focus on inventoried trees within the ROW and dominant species within natural areas and is not intended to provide a comprehensive rating for individual vegetation communities. Rather, the floristic quality index (FQI) may be considered as a tool for assessing the diversity of the urban canopy. Generally, an FQI of 1-19 in considered indicative of a low-quality community, 20-35 is considered high quality, and greater than 35 is considered exceptional.

Ecological Land Classification

Vegetation communities were generally characterized following the first approximation of the *ELC System for Southern Ontario* (Lee *et al*. 1998). The second approximation of ELC (Lee 2008) was also used when there was no code available for a specific community type in the first approximation.

Prior to undertaking field surveys, vegetation communities were mapped through aerial photograph interpretation, with polygons delineated using ArcGIS at a scale of 1:5,000 and using NAD83 Universal Transverse Mercator coordinate system.

Although the ELC protocol indicates a minimum size of 0.5 ha for mapping polygons, all communities regardless of size were identified to ensure a complete understanding of the environmental characteristics of the study area were captured.

The field inventories included verifying and refining the boundaries mapped during the desktop exercise. Additional data was also collected on disturbances and wildlife species present within each of the polygons that could be field verified. The vegetation communities were assessed to determine if candidate SWH is present (including rare vegetation community types).

3.4.2 WILDLIFE

Incidental and General Wildlife Habitat Observations

Field investigations included documenting incidental observations of wildlife and wildlife habitat features. This information was collected for use as part of the SWH and SAR habitat assessment. Wildlife habitat features that could be documented include, but were not limited to, rock piles, stick nests or other nests of wildlife, burrows, evidence of wildlife such as scat, tracks, predated nests, among others. A targeted search for MBCA Schedule 1 birds was not carried out as this policy had not come into effect at the time of fieldwork. Based on the observed conditions, a screening for likelihood of nesting habitat of MBCA Schedule 1 birds was carried out, however future updates to the tree inventory should include a targeted search for nests of these species.

3.4.3 FISH AND FISH HABITAT

Two watercourses were identified within the Project area during background review: the Tributary of Spring Creek and Mimico Creek. Detailed field investigations of these watercourses were completed by Parsons biologists on August 3, 2022. Investigations included documenting the existing habitat conditions and identifying sensitive or critical/important areas for fish. Investigations for the Tributary of Spring Creek took place upstream and downstream, and Mimico Creek was only investigated upstream as the downstream reach is not within the study area.

Photographs were taken to document instream habitat and bank characteristics within the Tributary of Spring Creek and Mimico Creek within the study area and are provided in **Appendix H**.

A Smith-Root backpack electro-shocker (Model LR-24) was used to collect fish community data in the downstream reach of the Tributary of Spring Creek. Electrofishing was conducted by moving in a downstream-to-upstream sweep and ensuring adequate sampling of all habitat types present at the site. Any fish collected were identified, counted, and live released at the site of capture. Sufficient fish community data was available during the background review for the watercourses within the study area. All field forms used to document existing conditions, fish community, and water quality conditions are provided in **Appendix E**

4. Existing Conditions

The study area is located on Williams Parkway in the City of Brampton and spans approximately 2.76 km through a developed urban area with maintained greenspace, starting from Dixie Road to Torbram Road. The study area and its surrounding land use includes parkland associated with the Jayfield Park and the Chinguacousy Trail, residential neighborhoods, schools, commercial buildings, institutional buildings, and recreational use. Naturalized areas within the study area primarily include riparian habitat surrounding the Tributary of Spring Creek and Mimico Creek, as well as cultural meadows and woodland fragments that have potential to provide wildlife habitat for urban-tolerant species.

4.1 Physiography and Soil

The study area falls within the Peel Plain and South Slope physiographic regions (Chapman and Putnam 1984). The Peel Plain is a relatively flat area situated in the central portion of the South Slope, this region consists of a thin layer of silt and clay lacustrine material deposited over till. Based on the soil composition, infiltration is low, and groundwater recharge is limited as precipitation is lost through surface runoff or evaporation in the Peel Plain. The South Slope region north of the Peel Plain consists of a smooth, faintly drumlinized, clay till plain. Similar to the Peel Plain, the south slope's soil composition allows for little infiltration, so any precipitation quickly runs off into the local watercourses.

4.2 Designated Areas and Features

Designated Areas are defined by resource agencies, municipalities, the provincial and federal government and/or the public, through legislation, policies, or approved management plans, to have special or unique value. Such areas may have a variety of ecological, recreational, and/or aesthetic features and functions that are highly valued. This NEA considers designated areas to include NHS, provincially significant ANSIs, national, provincial, municipal and/or conservation authority parks, conservation regulated areas and municipal environmental policy areas. The following sections include all the designated areas identified within the study area.

4.2.1 TRCA REGULATED AREA

The TRCA Regulated Area extends into the study area (**Appendix A, Figure 1**), overlapping with areas associated with Tributary of Spring Creek and Mimico Creek. Section 3(1) of O. Reg. 166/06 states that "*The Authority may grant permission for development in or on the*" TRCA Regulated Area "*if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development*."

4.2.2 TRCA TARGET TERRESTRIAL NATURAL HERITAGE SYSTEM

The TRCA Target Terrestrial Natural Heritage System was developed to identify the quantity and general configuration of natural cover required to improve habitat quality and restore native biodiversity (TRCA 2010a). This system is further refined to the watershed level and organized by identifying the Existing Natural Cover areas and Potential Natural Cover areas. The wooded and riparian habitats within the study area are part of the Etobicoke Mimico Watershed Natural Heritage System which is part of the TRCA Target Natural Heritage System. These areas as shown in **Figure 1** marked as Woodland and Valleyland. The Target Terrestrial Natural Heritage System identifies Woodland and Valleylands of the tributary of Spring Creek in the study area as Existing Natural Cover, while the Valleyland of Mimico Creek in the study area was identified as Potential Natural Cover.

4.2.3 VALLEYLANDS AND WATERCOURSE CORRIDOR

Schedule "D" Natural Heritage Features and Areas of the City's (City of Brampton 2020) Official Plan shows the portion of the study area surrounding Tributary of Spring Creek and Mimico Creek are located within a Valleylands and Watercourse Corridor (**Appendix A, Figure 1**). Policy 4.6.7.1 states that "*development and site alteration is generally not permitted within*

a valleyland or watercourse corridor unless it has been demonstrated that there will be no negative impact on the significant natural features and their functions in accordance with the required studies".

4.2.4 MUNICIPAL PARKS

Jayfield Park and the parklands associated with the Chinguacousy recreational trail occur within the study area. Section 4.7 of the City's (City of Brampton 2020) Official Plan outlines objectives related to the City's recreational open space including public parkland. The preferred solution should "*manage, restore and where possible, enhance recreational open space to support and link elements of the natural heritage system*" (Section 4.7.i).

4.3 Vegetation and Vegetation Communities

4.3.1 TREE INVENTORY AND ASSESSMENT

A tree inventory and health assessment of all trees within the Tree Inventory Area was completed between July 14 and July 20, 2022. The Tree Inventory Area encapsulates all trees within a 6 m buffer from the Project Extent edge. A total of 834 individual trees and an additional 46 groupings were documented within the Tree Inventory Area. A summary of the species and number of individual trees is provided in **Table 1** below. The full tree inventory and assessment is provided in **Appendix D** and are shown in **Appendix A, Figure 5**. Several invasive species identified by the Ontario Invasive Plant Council were documented throughout the Tree Inventory Area, including Common Buckthorn (*Rhamnus cathartica*), and Norway Maple (*Acer platanoides*). However, they are not listed under O. Reg. 354/16 under the *Invasive Species Act 2015*. Other non-native species including Manitoba Maple (*Acer negundo*) and Austrian Pine (*Pinus nigra*) were also documented within the Tree Inventory Area.

For the individual trees surveyed, the most plentiful species was Norway Maple, where it contributed to over 25% of total individual trees for the inventory. The second most abundant species was Austrian Pine, with 120 individual trees. The trees inventoried observed to have Good overall health and generally of large sizes. There were 396 trees measured to have a DBH between 20-40 cm. This is followed by 262 trees within the range of 11-19 cm. Out of the 834 individual trees, 813 (97%) were characterized with an Overall Health of "fair" or "good". The remaining 21 (3%) individuals were found to be of "poor" Overall Health. As trees are living organisms, health and size may change over time and should be updated to capture existing conditions at detailed design.

For the Tree Groupings, a total of 4156 trees were documented into 46 groups, with varying compositions. Consistently throughout, these groupings had various number of stems, from 3 trees to 400 trees, each with less than 10 cm DBH and "good" Overall Health. The dominant species included Amur Maple (*Acer ginnala*) and European Buckthorn, both of which are invasive species. Of the few native species, Gray Dogwood (*Cornus racemosa*) and Eastern White-cedar (*Thuja occidentalis*) were the most plentiful.

TABLE 1 – SUMMARY OF SPECIES FOR TREE INVENTORY

Species Name	Common Name	Count of Trees by DBH Class						Total
		0-10 cm	11-19 cm	20-40 cm	41-50 cm	51-60 cm	61-70 cm	
Abies balsamea	Balsam Fir		2					**2**
Acer ginnala	Amur Maple	21	68	2				**91**
Acer negundo	Manitoba Maple	7	9	7				**23**
Acer platanoides	Norway Maple	39	81	98	10	1		**229**
Acer rubrum	Red Maple	5		1				**6**
Acer saccharum	Sugar Maple			2				**2**
Acer saccharinum	Silver Maple	3	1	7	5		2	**18**
Acer x freemanii	Freeman's Maple		1					**1**
Aesculus glabra	Ohio Buckeye	1						**1**
Aesculus hippocastanum	Horse Chestnut			8	2			**10**
Amelanchier sp.	Serviceberry sp.	1						**1**
Alnus incana	Speckled Alder	1						**1**
Catalpa speciosa	Northern Catalpa			1				**1**
Celtis occidentalis	Hackberry	2						**2**
Crataegus sp.	Hawthorn sp.		1	1				**2**
Fraxinus americana	White Ash	5	1					**6**
Fraxinus sp.	Ash sp.	13	1					**14**
Ginkgo biloba	Ginkgo	1						**1**
Gleditsia triacanthos	Honey Locust	3	4	19	1	2		**29**
Juglans nigra	Black Walnut	1						**1**
Juniperus virginiana	Eastern Red Cedar	1	2	1				**4**
Malus sp.	Apple sp.	2	39	20				**61**
Malus sp.	Crabapple sp.	4		4				**8**
Morus sp.	Mulberry sp.	1	1		1			**3**
Picea abies	Norway Spruce		3	11	1			**15**
Picea glauca	White Spruce		4	18	1			**23**
Picea pungens	Blue Spruce		4	31	2			**37**
Pinus nigra	Austrian Pine		1	106	13			**120**
Populus alba	White Poplar		3	1				**4**
Populus deltoides	Eastern Cottonwood			1				**1**
Prunus sp.	Cherry sp.	3	1					**4**
Pyrus sp	Pear sp.	1						**1**
Quercus Rubra	Red Oak		2	1	1			**4**
Rhamnus cathartica	European Buckthorn	8	8					**16**
Rhus typhina	Staghorn Sumac		1					**1**
Salix sp.	Willow sp.	3	20	53				**76**
Sorbus sp.	Mountain-Ash	1						**1**
Thuja occidentalis	Eastern White Cedar		1					**1**
Tilia americana	Basswood			1	1			**2**
Tilia cordata	Greenspire Linden	3						**3**
Tilia cordata	Little Leaf Linden		2					**2**
Ulmus sp.	Elm sp.	3	1	2				**6**
Total Trees by DBH Class		**133**	**262**	**396**	**38**	**3**	**2**	**834**

Vegetation removal is anticipated with preliminary impacts outlined in Section 5.3. The tree inventory was conducted using appropriate professional standards and experience, noting that conditions of trees were determined within a visually observable area. Assessments of tree health does not apply to any areas that are beyond the visually observable range (i.e., roots) or any trees beyond the area of this study or given permission. This assessment has been reviewed by an ISA Certified Arborist and represents a snapshot in time and cannot guarantee any future health conditions.

4.3.2 FLORISTIC QUALITY ASSESSMENT

The total FQI for the study area is 15.8, based on a total of 37 species, comprised of 62% native species and 38% introduced. Based on this assessment, the general floristic quality of woody vegetation within the study area is low, reflecting the highly urbanized landscape and presence of invasive species. However, the high number of native species recorded is a positive indicator for the overall native tree diversity within the urban canopy including both planted trees and naturalized occurrences throughout the study area.

Woody invasive species were observed throughout the study area, with the most prevalent species including European Buckthorn (*Rhamnus cathartica*), Amur Maple (*Acer ginnala*), Norway Maple (*Acer platanoides*), Burning Bush (*Euonymus alata*), and Tatarian Honeysuckle (*Lonicera tatarica*).

4.3.3 ECOLOGICAL LAND CLASSIFICATION

The majority of the study area consists of residential and commercial developments, and parklands. The only naturalized areas present are associated with Mimico Creek and the Tributary of Spring Creek which are surrounded by woodland and meadow communities. A summary of vegetation communities within the study area are summarized in Table 2 below and shown on Appendix A, Figure 2.

TABLE 2 – VEGETATION COMMUNITIES

ELC Code	Community Type	Description/Comments
CONSTRUCTED COMMUNITIES		
CGL	Constructed Greenlands	This community includes parklands and landscaped areas.
CVC	Commercial and Institutional	This community includes commercial and institutional properties and buildings.
CVR	Residential	This community includes residential developments.
MEADOW COMMUNITIES		
MEG	Graminoid Meadow	This community is dominated by unmowed grasses, with occasional forbs.
MEM	Mixed Meadow	This community is composed of grasses and forbs such as Canada Thistle *(Cirsium arvense),* Teasel species *(Dipsacus sp)* and Common Burdock *(Arctium minus).*
TREED HEDGEROW COMMUNITIES		
TAGM5	Fencerow	These communities are a cultural deciduous fencerow, planted young trees and shrubs understory with mostly Common Buckthorn.
THICKET COMMUNITIES		
THDM2	Dry-Fresh Deciduous Shrub Thicket	This community is a Burning Bush *(Euonymus alata)* dominant thicket and was confirmed by Parsons during field investigation.
THDM2-6	Buckthorn Deciduous Shrub Thicket	This community dominated with Willow species *(Salix sp)* and Manitoba Maple *(Acer negundo).*
WOODLAND COMMUNITIES		
WODM5	Fresh – Moist Deciduous Woodland	These communities are successional woodlands that is composed of Silver Maple *(Acer saccharinum),* Black Walnut *(Juglans nigra),* Manitoba Maple, Ash species *(Fraxinus sp),* Poplar species *(Populus sp),* Speckled Alder *(Alnus incana)*, Amur Maple *(Acer ginnala),* Dogwood species *(Cornus sp)* and Willow species.
WIMM4	Fresh-Moist Mixed Woodland	This community is a successional woodland with a mix of trees and shrubs species such as, Silver Maple, White Spruce *(Picea glauca),* Poplar species, Ash species, Pussy Willow *(Salix discolor)* and Dogwood species in the understory.
OPEN AQAUTIC COMMUNITIES		
OAO	Open Aquatic	This community is unvegetated and includes the watercourse channels of Spring Creek.

4.4 Significant Woodlands

Schedule "D" Natural Heritage Features and Areas of the City's Consolidated Official Plan (2020) includes woodlands within the City's NHS (see **Section 2.3.1**). These woodlands would be evaluated through the development review process. Policy 4.6.8 of the Official Plan (2020) states that "*prior to development, significant woodlands will be identified based on the direction contained in the Province's Natural Heritage Manual, or municipal approaches that achieve or exceed the same objective. For woodlands in the Greenbelt, significant woodlands will be identified in accordance with the Greenbelt Technical manuals. Development and site alteration shall not be permitted in significant woodlands unless it can be demonstrated that there will be no negative impacts on these features or their ecological functions.*" As shown in **Appendix A, Figure 1**, none of the woodlands identified within Schedule "D" are located within the study area. There are other woodlands present within the study area not shown on Schedule "D". Two non-sensitive woodlands are located within the study area to the north and the south of the Tributary of Spring Creek Williams Parkway crossing.

4.5 Significant Wetlands

The desktop and field investigations did not identify any provincially significant wetlands or other wetlands (i.e., evaluated or unevaluated) within the study area.

4.6 Significant Wildlife Habitat

All wildlife and vegetation communities documented during the desktop study and field investigations were assessed as part of the SWH screening. An assessment of candidate and confirmed SWH was completed following the *SWH Criteria Schedules for Ecoregions 6E and 7E* (MNR 2015a & MNR 2015b) and are summarized in **Table 3,**with the full evaluation, including SoCC screening, provided in **Appendix F**.

TABLE 3 – SUMMARY OF CANDIDATE AND CONFIRMED SWH WITHIN THE STUDY AREA AND ADJACENT LANDS

SEASONAL CONCENTRATION AREAS OF ANIMALS							
N	Waterfowl Stopover and Staging Areas (Terrestrial)	N	Waterfowl Stopover and Staging Areas (Aquatic)	N	Shorebird Migratory Stopover Area	N	Raptor Wintering Area
N	Bat Hibernacula	N	Bat Maternity Colonies	N	Turtle Wintering Areas	N	Reptile Hibernaculum
N	Colonially - Nesting Bird Breeding Habitat (Bank/Cliff)	N	Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)	N	Colonially - Nesting Bird Breeding Habitat (Ground)	N	Migratory Butterfly Stopover Areas
N	Landbird Migratory Stopover Areas	N	Deer Winter Congregation Areas				
RARE VEGETATION COMMUNITY							
N	Cliffs and Talus Slopes	N	Sand Barren	N	Alvar	N	Old Growth Forest
N	Savannah	N	Tallgrass Prairie	N	Other		
SPECIALIZED HABITAT FOR WILDLIFE							
N	Waterfowl Nesting Area	N	Bald Eagle and Osprey Nesting/Foraging/Perching	N	Woodland Raptor Nesting Habitat	N	Turtle Nesting Areas
N	Seeps and Springs	N	Amphibian Breeding Habitat (Woodland)	N	Amphibian Breeding Habitat (Wetland)	N	Woodland Area-sensitive Bird Breeding Habitat
HABITAT FOR SPECIES OF CONSERVATION CONCERN							
N	Marsh Bird Breeding Habitat	N	Open Country Bird Breeding Habitat	N	Shrub/Early Successional Bird Breeding Habitat	N	Terrestrial Crayfish
C	Special Concern and Rare Species (see Appendix F)						

ANIMAL MOVEMENT CORRIDORS	
N	Amphibian Movement Corridors

Y = confirmed; C = candidate; N = no or unlikely

The SoCC screening determined that there is potential habitat for Wood Thrush. As such, Special Concern and Rare Species SWH is considered. This category of SWH candidacy requires element occurrence identified through NHIC or OBBA, along with appropriate ELC Ecosite habitats for the species documented in the study area (MNR 2015a) (MNR 2015b). Further assessment of the study area is required to confirm the presence of the species during the appropriate timing window. In addition, a Confirmed SWH would require delineation of suitable habitat to the finest ELC scale.

Wood Thrush was determined to have potential habitat in the study area. OBBA records detailed its presence and presence of Fresh-Moist Deciduous Woodland (WOD), and Fresh-Moist Mixed Woodland (WOM) vegetation community types support this SWH Candidacy for this species. This species satisfy the Candidate SWH requirements for Special Concern and Rare Species category.

Candidate Bat Maternity Colonies were also considered and were screened out as the required density of large diameter cavity trees (greater than 10 / hectare) was not present in the study area. It is acknowledged that all trees may provide roosting habitat for bats, however the SWH criteria target naturalized areas and roosting preferences of silver-haired bat (*Lasionycteris noctivagans*) and big brown bat (*Eptesicus fuscus*). According to the *SWH Criteria Schedule for Ecoregion 7E* (MNR 2015b), candidate SWH for this category requires large diameter cavity trees 25 cm DBH or greater. In addition, the Tree Inventory listed no dead stands and did not note any cavities present within the study area. As such, the Candidate Bat Maternity Colony SWH was ruled out. Despite this, there is still potential habitat for foraging or roosting due to the presence of trees and watercourses in the study area, including potential foliage roosts and peeling bark, cracks, or cavities not observed during field investigations. Large diameter trees (>25 cm DBH) accounted 34% of total trees inventoried, with DBH ranging from 25 – 70 cm. The close proximity of these trees to Mimico Creek and the Tributary of Spring Creek are components of potential habitat opportunities for SAR bats in the study area, which are addressed further in **Section 4.8**.

4.7 Fisheries and Aquatic Habitat

The study area is located in the Spring Creek Subwatershed of the Etobicoke Creek watershed and the Mimico Creek Subwatershed of the Mimico Creek watershed. The primary drainage features identified within the study area that support fish and provide fish habitat are Tributary of Spring Creek, which bisects the study area just west of the Chinguacousy Trail, and Mimico Creek, which flows near the eastern limit of the study area **(Appendix A, Figure 4)**.

4.7.1 TRIBUTARY OF SPRING CREEK

The Tributary of Spring Creek is located within the Etobicoke Creek watershed. The tributary is a permanent, warmwater, direct fish habitat watercourse conveyed under Williams Parkway in the northwest to southeast direction through a bridge. The surrounding land use at Williams Parkway is highly treed parklands. Tributary of Spring Creek begins as two tributaries approximately 7.5 km and 4 km northwest of the study area that flow separately through agricultural lands, woodlands, wetlands, parklands, and residential areas before flowing into a reservoir approximately 2 km upstream of the study area. From the reservoir, Tributary of Spring Creek flows out as one channel in the southeast direction through Manitou Park, and then Maitland Park North before entering the study area. During field investigations completed on August 3, 2022, by Parsons, the channel's upstream morphology was riffles with some run areas and one pool near the upstream extent, and the substrate was mostly cobble with some boulder, gravel and sand present. The section of the watercourse that flowed under the Williams Parkway bridge was observed to be a concrete channel with no natural streambed materials which extended for approximately 5 m upstream of the bridge. The channel was heavily shaded by overhanging vascular macrophytes and trees but had no in-stream vegetation to provide habitat, although potential spawning habitat for bait/forage fish was found during field investigations. The Chinguacousy trail runs adjacent to the stream along the east bank.

Downstream, the watercourse continues flowing southeast through parklands for approximately 4.2 km before joining other Spring Creek tributaries. Parsons assessed the downstream reach of Tributary of Spring Creek and conducted electro-fishing on August 3, 2022. The downstream morphology consisted of mostly runs with some riffles and flats, and cobble, boulder, gravel and sand substrates. 100% of the watercourse was shaded by trees, and there was no in-stream vegetation present. Spawning habitat for bait/forage fish was observed in the downstream reach and the banks consisted of trees, rock, and many areas of exposed soil.

A summary of the aquatic habitat features observed at the Williams Parkway crossing of Tributary of Spring Creek in August 2022 and water quality parameters measured in August 2022 are presented in **Table 4** and **Table 5** below.

TABLE 4 – AQUATIC HABITAT FEATURES IN TRIBUTARY OF SPRING CREEK AT WILLIAMS PARKWAY

Feature	Upstream	Downstream
Flow Regime	Permanent	Permanent
Temperature Regime	Warm	Warm
Stream Morphology	65% riffle, 25% run, 10% pool	10% flats, 10% riffle, 80% run
Mean Wetted Depth (m)	Riffle: 0.13 Run: 0.32 Pool: 0.70	Flats: 0.3 Riffle: 0.1 Run: 0.4
Mean Wetted Width (m)	Run & pool: 5.0 Riffle: 2.8	Flats, riffle, & run: 2.5
Bank Stability	Stable	Slightly Unstable
Substrate	Cobble, Boulder, Gravel, Sand	Cobble, Boulder, Gravel, Sand
In-stream Cover	25% boulders, 5% cobbles, 65% overhanging vascular macrophytes, 15% overhanging woody debris, 10% in-stream woody debris	10% boulders, 5% in-stream woody debris, 85% overhanging vascular macrophytes
Riparian Vegetation	Trees, vascular macrophytes	Trees
Shore (% stream shaded)	89-60%	100-90%
Migration Barriers	None	None
Adjacent Land Use	Parklands, Residential areas	Parklands

TABLE 5 – WATER QUALITY CONDITIONS IN TRIBUTARY OF SPRING CREEK AT WILLIAMS PARKWAY

Parameter	Upstream	Downstream
Conductivity (µS/cm)	1530	1530
Water Temperature (°C)	20.4	20.4
Dissolved Oxygen (mg/L)	n/a	n/a
pH	n/a	8.21
Air Temperature (°C)	23.0	22.0

According to the GTAA Living City Project Etobicoke Creek – The Aquatic System (TRCA 2006) report, the Spring Creek Subwatershed of the Etobicoke Creek watershed has had a total of 20 species captured overtime, of which 7 have been collected, most recently, in 2004. Tributary of Spring Creek within the study area is considered low sensitivity fish habitat according to the 2011 MCEA Study report for Dixie Road Improvements from Queen Street to 2 km North of Mayfield Road completed by AECOM (AECOM 2011).

A fish community survey was completed within the downstream reach of the Tributary of Spring Creek during the 2022 field investigation. The watercourse was sampled using a backpack electrofishing unit LR-24 model. The 2022 fishing efforts resulted in three species being caught including Green Sunfish, Creek Chub and Brown Bullhead. Fish community records from background resources and Parson's 2022 sampling efforts have been summarized and are presented below. As noted in **Table 6**, all the species present in Tributary of Spring Creek are common and widespread in Ontario.

TABLE 6 – SUMMARY OF KNOWN FISH COMMUNITY WITHIN TRIBUTARY OF SPRING CREEK WITHIN THE STUDY AREA

Common Name	Scientific Name	Provincial Status (s Rank)*	Thermal Regime**	LIO (2019)	TRCA (2006)	Parsons (2022)
Blacknose Dace	*Rhinichthys atratulus*	S5	cool		✓	
Brook Stickleback	*Culaea inconstans*	S5	cool	✓		
Brown Bullhead	*Ameiurus nebulosus*	S5	warm			✓
Common Shiner	*Luxilus cornutus*	S5	cool		✓	
Creek Chub	*Semotilus atromaculatus*	S5	cool	✓	✓	✓
Fathead Minnow	*Pimephales promelas*	S5	warm	✓	✓	
Green Sunfish	*Lepomis cyanellus*	S4	warm		✓	✓
Pumpkinseed	*Lepomis gibbosus*	S5	warm		✓	
White Sucker	*Catostomus commersonii*	S5	cool	✓	✓	

*S4 – Apparently secure; uncommon but not rare; some cause for long-term concern due to declines or other factors; S5 – Secure; common; widespread and abundant in the province; **Eakins, 2022

Based on the table above, the fish community in Tributary of Spring Creek is comprised of secure or apparently secure, cool as well as warm water bait and forage species.

DFO Aquatic SAR mapping, LIO Aquatic Resource mapping, and the MECP SAR database did not indicate the presence of any aquatic SAR at the crossing.

The MNR confirmed that Tributary of Spring Creek has a warmwater thermal regime and as such, all in-water work should take place during the July 1st – March 31st timing window. It is recommended that in-stream vegetation is installed to create fish habitat and the concrete channel through the bridge is removed and replaced with natural streambed materials. It is also recommended that the exposed soil observed in the downstream reach is seeded to stabilize the banks and prevent sedimentation.

4.7.2 MIMICO CREEK

This watercourse is conveyed under Williams Parkway and Torbram Road intersection by a CSP culvert and is considered permanent, warmwater, direct fish habitat. The watercourse flowed parallel and north of Williams Parkway from Jayfield Park to Torbram Road and then passed underneath the intersection. The surrounding land use at Williams Parkway was noted as primarily residential and parklands.

Mimico Creek begins west of the study area and flows in an east direction for approximately 1 km, passing through Jefferson Park, then Jordan Park and lastly Jayfield Park before turning northeast and entering the study area, running parallel to Williams Parkway. During field investigations completed on August 3, 2022, by Parsons, the channel's upstream reach from the Williams Parkway crossing to approximately 33 m upstream was observed as a high velocity, narrow concrete channel with concrete extending into the riparian area and riparian vegetation emerging from the concrete in some areas. Further upstream, the watercourse continued as a high velocity concrete channel but the concrete no longer extended into the riparian area which caused pools of water to form adjacent to the concrete channel due to excess flow. During Parsons' field investigations, within the study area approximately 192 m upstream of the Williams Parkway crossing, the concrete lining within Mimico Creek was being removed and the Creek was being re-naturalized as part of TRCA's efforts to improve water quality, and fish and wildlife habitat. This construction is planned to be completed by the end of 2022 and extends upstream to North Park Drive (City of Brampton 2022). During a field investigation completed by Parsons on June 8, 2017 for the Schedule "C" MCEA Study for the improvement of Torbram Road from Queen Street East to Bovaird Drive, Mimico

Creek within the study area had similar conditions to the 2022 field visit, with the upstream reach consisting completely of a concrete channel (Parsons 2017). Mimico Creek within the study area receives extra flow from two culverts approximately 30 m and 215 m upstream of the Williams Parkway crossing, respectively, and both of the culverts conveyed drainage from a residential area north of the watercourse. No instream vegetation was observed during Parsons' field investigations and channel morphology consisted of mostly runs with some pools adjacent to the main channel. The substrate within the pools adjacent to the concrete channel was mainly cobble and gravel, and riparian vegetation within the upstream reach consisted of trees, shrubs and grasses.

Within the culvert, pools of gravel and sand could be seen during field investigations. The downstream reach of Mimico Creek (East/downstream of the Williams Parkway crossing) was not formally assessed during field investigations. However, a general assessment of this reach determined that Mimico Creek continued to flow south as a channelized watercourse, parallel to Torbram Road on the east site. The watercourse flowed within a very narrow corroder surrounded by industrial buildings and flowed through a 2nd culvert under a gas station entrance approximately 60 m downstream of Torbram Rd. The downstream reach of Mimico Creek was not within the study area and therefore was not formally included in field investigations conducted by Parsons.

A summary of the aquatic habitat features observed at the Williams Parkway crossing of Mimico Creek in August 2022 is presented in **Table 7** below. No water quality parameters were recorded as the channel was too shallow.

TABLE 7 – AQUATIC HABITAT FEATURES IN MIMICO CREEK AT WILLIAMS PARKWAY

Feature	Upstream
Flow Regime	Permanent
Temperature Regime	Warm
Stream Morphology	90% run, 10% pool
Mean Wetted Depth (m)	Run: 0.1 Pool: 0.2
Mean Wetted Width (m)	N/A
Bank Stability	Stable
Substrate	Pool: Cobble, Gravel, Sand Run: Concrete lining, Sand
In-stream Cover	5% cobbles, 5% organic debris, 70% overhanging vascular macrophytes, 15% overhanging woody debris, 5% in-stream woody debris
Riparian Vegetation	Trees, shrubs, grasses
Shore (% stream shaded)	89-60%
Migration Barriers	High velocity & concrete channel causing isolated pools
Adjacent Land Use	Parklands, Residential areas

According to the Etobicoke and Mimico Creeks Watersheds Technical Report Update – Aquatic System – Instream Barriers to Fish Passage (TRCA 2010b) report, Mimico Creek within the study area contains a total of 11 fish species which are tolerant to a variety of thermal regimes and habitat conditions.

The results of fish community records from background resources have been summarized and are presented below. As noted in **Table 8**, all the species present in Mimico Creek are common and widespread in Ontario.

TABLE 8 – SUMMARY OF KNOWN FISH COMMUNITY WITHIN MIMICO CREEK WITHIN THE STUDY AREA

Common Name	Scientific Name	Provincial Status (s Rank)*	Thermal Regime**	LIO (2019)	TRCA (2006)
Blacknose Dace	*Rhinichthys atratulus*	S5	cool		✓
Bluntnose Minnow	*Pimephales notatus*	S5	warm		✓
Brook Stickleback	*Culaea inconstans*	S5	cool		✓
Common Shiner	*Luxilus cornutus*	S5	cool		✓
Creek Chub	*Semotilus atromaculatus*	S5	cool	✓	✓
Fathead Minnow	*Pimephales promelas*	S5	warm		✓
Johnny Darter	*Etheostoma nigrum*	S5	cool		✓
Largemouth Bass	*Micropterus salmoides*	S5	warm		✓
Longnose Dace	*Rhinichthys cataractae*	S5	cool		✓
Pumpkinseed	*Lepomis gibbosus*	S5	warm		✓
Rock Bass	*Ambloplites rupestris*	S5	cool		✓

*S5 – Secure; common; widespread and abundant in the province; **Eakins, 2022

Based on the table above, the fish community in Tributary of Spring Creek is comprised of secure, cool as well as warm water bait, forage, sport and pan species. No fish were observed during the field investigations, but it is likely these fish will be present in the soon to be naturalized area of the channel within the study area being completed by the TRCA.

DFO Aquatic SAR mapping, LIO Aquatic Resource mapping, and the MECP SAR database did not indicate the presence of any aquatic SAR within the study area.

The MRNF confirmed that Mimico Creek has a warmwater thermal regime and as such, all in-water work should take place during the July 1st – March 31st timing window. It is recommended that the TRCA's channel naturalization efforts extend downstream to the Williams Parkway crossing, removing all concrete lining from the study area and adding natural stream bed materials and in-stream vegetation. This would increase fish habitat, reduce flow velocity, and prevent fish from being stranded in pools adjacent to the channel.

4.8 Species at Risk

4.8.1 TERRESTRIAL SPECIES AT RISK

A SAR screening was completed to determine habitat potential for SAR to occur within the study area and/or adjacent lands based on findings from the background review and field investigations. The results of the screening are provided in **Appendix G** and summarized in **Table 9.** Standard mitigation measures, including timing windows should be adhered to, to protect SAR.

Based on the results of the screening, 3 SAR and 1 SoCC have the potential to occur within the study area and/or the adjacent lands:

- Little Brown Myotis (*Myotis lucifugus*)
- Northern Myotis (*Myotis septentrionalis*)
- Tricolored Bat (*Perimyotis subflavus*)

- Wood Thrush (*Hylocichla mustelina*)

An additional 3 species of migratory bats, with expectation to be uplisted to be Endangered under ESA and SARA, have the potential to occur within the study area and/or the adjacent lands.

- Hoary Bat (*Lasiurus cinereus*)
- Eastern Red Bat (*Lasiurus borealis*)
- Silver-haired Bat (*Lasionycteris noctivagans*)

TABLE 9 – SUMMARY OF POTENTIAL TERRESTRIAL SPECIES AT RISK WITHIN THE STUDY AREA AND ADJACENT LANDS

	Species	SARA	ESA	Legal Protection	Assessment
MAMMALS	Eastern Small-footed Myotis (*Myotis leibii*)	No Status	END	ESA	Unlikely – This species prefers roosting in rock habitats and barns. No suitable habitat is present in the study area.
	Little Brown Myotis (*Myotis lucifugus*)	END, Schedule 1	END	ESA, SARA	**Potential** - There are no previous records of SAR bats within the study area and no individuals were observed during the 2022 site visit, however background records for bats are limited and observations are generally not expected during daytime site visits. There are forest fragments and urban trees that could provide possible roosting habitat, with forests and riparian areas providing foraging habitat. Trees within the Project limits are within an existing fragmented urban landscape and do not provide unique roosting opportunities when compared with the surrounding area. With appropriate timing windows, these species and its habitat are not anticipated to be impacted by proposed works.
	Northern Myotis (*Myotis septentrionalis*)	END, Schedule 1	END	ESA, SARA	
	Tricolored Bat (*Perimyotis subflavus*)	END, Schedule 1	END	ESA, SARA	
	Hoary Bat (*Lasiurus cinereus*)	END, Pending Uplisting (TBD)	END, Pending Uplisting (Jan 2025)	N/A	**Potential** - There are no previous records of migratory bats within the study area and no individuals were observed during the 2022 site visit, however background records for bats are limited and observations are generally not expected during daytime site visits. There are forest fragments and urban trees that could provide possible roosting habitat, with forests and riparian areas providing foraging habitat. Trees within the Project limits are within an existing fragmented urban landscape and do not provide unique roosting opportunities when compared with the surrounding area. With appropriate timing windows, these species and its habitat are not anticipated to be impacted by proposed works.
	Eastern Red Bat (*Lasiurus borealis*)	END, Pending Uplisting (TBD)	END, Pending Uplisting (Jan 2025)	N/A	
	Silver-haired Bat (*Lasionycteris noctivagans*)	END, Pending Uplisting (TBD)	END, Pending Uplisting (Jan 2025)	N/A	
AMPHIBIANS	Western Chorus Frog (*Pseudacris triseriata)*	THR, Schedule 1	No Status	SARA	Unlikely - ORAA has records within 1 km squares. There is no suitable habitat available within the study area.
BIRDS	Barn Swallow (*Hirundo rustica*)	THR, Schedule 1	SC	ESA, SARA, MBCA	Unlikely - OBBA has records of this species from within the 10km2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area. This species nor its nests were observed within the study area or adjacent lands during 2022 field investigations. There is limited nesting habitat as road culverts and lacks sufficient foraging habitat in the study area. Therefore, it is considered that there is no suitable habitat within the study area for this species.
	Bank Swallow (*Riparia riparia*)	THR, Schedule 1	THR	ESA, SARA, MBCA	Unlikely – OBBA has records of this species from within the 10km2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area or adjacent lands. Suitable banks or bluffs are not present within the study area or adjacent lands.

	Species	SARA	ESA	Legal Protection	Assessment
	Bobolink (*Dolichonyx oryzivorus*)	THR, Schedule 1	THR	ESA, SARA, MBCA	Unlikely - OBBA has records of this species from within the 10km2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area. Habitat for this species is not considered present. There is no suitable vegetation communities present within the study area or adjacent lands for this species.
	Chimney Swift (*Chaetura pelagica*)	THR, Schedule 1	THR	ESA, SARA, MBCA	Unlikely - OBBA has records of this species from within the 10km2 map squares (17PJ04). However, there are no identified critical habitat present in the Brampton area according to the Proposed Recovery Strategy (2022). This species is not expected to be impacted by the proposed works.
	Common Nighthawk (*Chordeiles minor*)	SC	SC	SARA, MBCA	Unlikely- OBBA has records of this species from within the 10km2 map squares (17PJ04). There are no suitable nesting or foraging habitat within the study area and adjacent lands for this species.
	Eastern Meadowlark (*Sturnella magna*)	THR, Schedule 1	THR	ESA, SARA, MBCA	Unlikely - OBBA has records of this species from within the 10km2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area. Habitat for this species is not considered present. There is no suitable vegetation communities present within the study area or adjacent lands for this species.
	Wood Thrush (*Hylocichla mustelina*)	THR, Schedule 1	SC	SARA, MBCA	**Potential** - OBBA has records of this species from within the 10km² map squares (17PJ04). The woodlands in the study area and adjacent lands may provide suitable habitat, however this species and its habitat is not anticipated to be impacted by the proposed works.
PLANTS	Black Ash (*Fraxinus nigra*)	No Status	END	ESA	Unlikely-NHIC presented a record of occurrence in the 1km2 square (17PJ0142). The woodlands associated with Mimico Creek and the tributary of Spring Creek may provide suitable habitat, however no Black Ash were documented within the study area during the 2022 field investigations. This species and its habitat are not anticipated to be impacted by the proposed works.
	Butternut (*Juglans cinerea)*	END, Schedule 1	END	iNaturalist	Unlikely- While no background records were identified for this species, the woodlands in the riparian areas of Mimico Creek and the tributary of Spring Creek may provide suitable habitat. No Butternuts were documented within the study area during the 2022 field investigations. This species and its habitat are not anticipated to be impacted by the proposed works.
INSECTS	Monarch (*Danaus plexippus*)	END, Schedule 1	SC	SARA	Unlikely - There are no previous records of Monarchs within the study area, and this species and its habitat are not anticipated to be impacted by proposed works.

4.8.2 AQUATIC SPECIES AT RISK

No aquatic SAR were identified during the background review to potentially occur in the area. According to the GTAA Living City Project Etobicoke Creek – The Aquatic System (TRCA 2006) report, there is a historic presence of Redside Dace in the Spring Creek Subwatershed of the Etobicoke Creek watershed, which contains Tributary of Spring Creek within the study area. Redside Dace is a freshwater fish species listed as 'Endangered' and protected provincially under the ESA and listed as 'Endangered' federally and protected on Schedule 1 of the SARA. Based on review of the most recent COSEWIC status report for Redside Dace (COSEWIC 2018), the species has not been documented within the Etobicoke Creek watershed since 1940 and is considered potentially extirpated from the watershed.

4.9 MBCA Schedule 1 Screening

New regulations of MBCA were adopted 2022 where protections for migratory birds and nests were updated. MBCA Schedule 1 species were identified, for which nest protections extend beyond the standard provisions to protect active nests, with nest protection applying to nests throughout the year, and requiring that a nest be established to be abandoned

for a minimum designated waiting period (Table 10). Potential Schedule 1 species were screened for suitable habitat and background records within the study area.

TABLE 10 – MBCA SCHEDULE 1 BIRD NEST SCREENING

Common Name	*Scientific Name*	Designated Waiting Period (months)	Existing Record	Nesting Habitat Potential (Y/N)
Great Egret	*Ardea alba*	24	N/A	N
Great Blue Heron	*Ardea herodias*	24	N/A	N
Green Heron	*Butorides virescens*	24	OBBA 2024	Y
Black-crowned Night Heron	*Nycticorax nycticorax*	24	N/A	N
Pileated Woodpecker	*Dryocopus pileatus*	36	OBBA 2024	Y

There is potential suitable nesting habitat for Green Heron and Pileated Woodpecker within the 120 m study area, however nesting potential is limited within the proposed Project limits. Suitable nesting habitat for Green Heron may be found in the riparian buffers of Mimico Creek and the Tributary to Spring Creek. Suitable nesting habitat for Pileated Woodpecker can be found in the woodlands that occur along Spring Creek and Mimico Creek where suitable mature trees are present. Targeted surveys for Green Heron nests and Pileated Woodpecker nest cavities focusing on treed habitats along Mimico Creek and Tributary to Spring Creek should be conducted during detailed design to determine if active nests are present.

5. Potential Impacts and General Mitigations

5.1 Approach to Impact Analysis

A general analysis of potential impacts was determined by reviewing current available 30% preliminary design details to determine the extent of potential impacts on natural features within the study area. The outcome of this process was based primarily on the significance and sensitivity of the natural features and on the anticipated disturbances as a result of design, construction and operations required to complete the road improvements. This assessment of potential impacts to natural environment features should be refined and updated during the detailed design phase once Project works are finalized and construction staging, and methodology are known.

Potential impacts were classified in two categories outlined below:

- Direct Impacts – are those impacts associated with the disruption or displacement of natural features caused by the actual increased 'footprint' area of the undertaking or activity; and
- Indirect Impacts – are those impacts associated with changes in site conditions such as surface drainage, water quality/quantity, increased noise, increased light, increased edge habitat etc.

Impacts and net effects on natural heritage features were assessed based on the following criteria:

- Duration - long or short term
- Extent - localized or expansive
- Timeframe - permanent or temporary
- Severity - positive or negative

Most direct impacts occur during the construction phase of a Project and contain localized, negative effects that can be reduced through avoidance and proper construction practices. After construction, there may be more long term, indirect impacts while the site recovers, and successional vegetation growth takes place. Typically, after the site re-vegetates, there is either a neutral or positive impact due to the placement of intentional native plantings, improved sediment control and surface drainage runoff control.

5.2 Designated Areas

Within the study area, there are two areas identified as a part of Schedule "D" Natural Heritage Features and Areas of the City's (City of Brampton 2020) Official Plan. One area surrounds the Tributary of Spring Creek is designated as Existing Natural Cover, and the second area surrounding Mimico Creek is designated as Potential Natural Cover, both of which are located within a Valleyland and Watercourse Corridor. These designated areas are located approximately 5-10 m from the anticipated construction limits potential direct and indirect impacts to these general natural heritage and valley lands may include temporary and/or marginal habitat loss, disturbance, and/or alteration. The extent and magnitude of direct and indirect impacts within designated areas is expected to be negligible as most construction works are expected to be completed within the existing ROW.

Due to the minimal proposed removal of vegetation within the Natural Heritage Features, habitat functions within designated areas are retained and the potential impacts can be minimized with mitigations suggested in Section 5.5.

5.2.1 DIRECT IMPACTS

No designated features are located directly within the expected construction limits, minimal direct impacts are expected. Minor encroachment may be expected as construction methods and footprints are confirmed at detailed design, particularly for works associated with culverts and wing walls at Mimico Creek and the Tributary of Spring Creek, where the designated areas are located 5-10 m outside of the limits of the preliminary design.

Activities that have the potential to result in habitat loss, disturbance and/or alteration within these features may include:

- Vegetation removal and earthworks;
- Wingwall installation;
- Culvert modifications;
- Fugitive dust resulting in smothered vegetation;
- Accidental spills (e.g., fuel, oil).

5.2.2 INDIRECT IMPACTS

Indirect impacts to designated features are expected to be minimal as the Project occurs within an existing transportation corridor where disturbance from traffic, noise and light are present under existing conditions. Based on preliminary design, the Project is not expected to result in an increase in edge habitat within designated areas.

5.3 Vegetation and Vegetation Communities

5.3.1 PRELIMINARY TREE REMOVAL ASSESSMENT

A Preliminary Tree Removal Assessment was completed to determine potential impacts to trees in the study area. These preliminary tree impact numbers are based on the 30% preliminary design prepared as part of the MCEA study and only represent a high-level understanding of anticipated tree impacts. An updated tree inventory and Arborist Report should be undertaken in detailed design / prior to construction to more accurately identify the tree impacts based on refined design information (e.g. exact limits of grading, noise wall start and end limits) as well as construction requirements.

The full tree inventory and assessment is provided in **Appendix D** and are shown in **Appendix A, Figure 5**. Results are summarized below in **Table 11**.

A total of 237 trees are expected to be removed on City of Brampton lands, with 133 expected to be injured, 341 are expected to be protected, and 43 trees to be retained. Due to proximity to work and expected installation of noise walls adjacent to private property, 24 trees are expected to be injured with 23 trees being recommended for removal on private property.

TABLE 11 – PRELIMINARY TREE REMOVAL ASSESSMENT SUMMARY

DBH Category	City of Brampton				Private			
	Retain	Protect	Injure	Remove	Retain	Protect	Injure	Remove
Less than 7 cm	6	18	3	26	0	2	0	0
7-19 cm	16	159	38	116	5	3	2	4
20-29 cm	5	98	46	63	10	2	4	6
30-39 cm	11	56	33	22	6	3	5	5
40-49 cm	5	8	13	9	2	0	6	7
50-59 cm	0	2	0	1	0	0	4	1
60-69 cm	0	0	0	0	0	0	1	0
70-79 cm	0	0	0	0	0	0	2	0
Total	*43*	*341*	*133*	*237*	*23*	*10*	*24*	*23*
Total > 30 cm	**16**	**66**	**46**	**32**	**8**	**3**	**18**	**13**

Expected impacts to trees on City lands are subject to the Tableland and Tree Assessment Guideline's framework for adhering to compensation ratios and report requirements. Trees on private lands under 30 cm DBH are not protected under the Tree Preservation Bylaw. A total of 18 private trees over 30 cm DBH are assessed as Injure and 13 private trees over 30 cm DBH are assessed as Remove.

Trees on private lands were assessed as Injure or Remove due to their close proximity to the existing pathway, the designed MUP, or designed noise walls. Trees were also assessed as Remove where there are no existing barriers between the trees and pedestrian path, and where excavation and damage to roots would render these trees unstable, increase risk of failing, and becoming hazardous for pedestrians.

5.4 Wildlife and Wildlife Habitat

Proposed construction works for improvements to Williams Parkway span approximately 2.76 km through a developed, highly urbanized area with small areas of maintained greenspace. As such, primary construction works are anticipated to be completed within the exiting roadway. Based on the identified areas of impact, minimal tree removal, and low-quality existing woody vegetation, the extent and magnitude of habitat loss is expected to be minimal.

Temporary disruption and avoidance of habitat by wildlife may occur due to construction-related activities such as construction noise, lighting and increased human presence. While most wildlife that inhabit relatively developed areas are adapted, to some extent, to anthropogenic disturbances such as traffic noise and artificial light, excess or prolonged disturbances can cause impacts beyond tolerance levels. For example, increased noise or the proximity of workers could cause nesting birds to temporarily vacate or completely abandon a nest in progress. Construction noise may result in habitat avoidance or disturbance to individuals where interference with vocalizations could disrupt breeding and other natural processes.

5.4.1 SIGNIFICANT WILDLIFE HABITAT

There is Candidate Special Concern and Rare Species SWH present in the study area for Wood Thrush and Monarch. The woodland communities adjacent to the Tributary of Spring Creek and Mimico Creek provide suitable habitat for Wood Thrush, while the meadow habitats along the Tributary of Spring Creek and east of the Williams Parkway/Torbram intersection are suitable for Milkweed (*Asclepias syriaca*), a food source for Monarch caterpillars. Preliminary design showed impacts along both creeks and woodland areas are limited to trees immediately adjacent to the road and culverts. Using appropriate avoidance and mitigation measures, no negative impacts are anticipated.

5.4.2 TERRESTRIAL SPECIES AT RISK

Potential impacts to terrestrial SAR and SoCC may include temporary loss, disturbance, and alteration of habitat; disruption and avoidance of habitat; and injury and incidental take. Impacts associated with the anticipated construction activity are expected to be temporary and minimal in nature given the limited naturalized habitat.

Based on the results of the screening and field investigations, 3 SAR have the potential to occur within the study area and/or the adjacent lands with all being identified as low probability. Additional species considered include Wood Thrush and 3 species of migratory bats with pending SAR status.

- **SAR Bats**: Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tricolored Bat (*Perimyotis subflavus*) are listed as Endangered under the ESA and the SARA. These species may roost in trees and/or buildings and are known to forage within wooded areas and near water. Trees identified for removal as a result of the Project are primarily street trees and are not expected to provide unique roosting opportunities within the surrounding landscape. Woodlands adjacent to the Tributary to Spring Creek and Mimico Creek may provide roosting and foraging opportunities however tree removal adjacent to these areas is expected to be minimal. Based on recent MECP guidance, provided that all tree removals can avoid the bat active season (April 1 to September 30), no negative impacts to SAR bats or their habitat is expected.
- **Migratory Bats**: Hoary Bat (*Lasiurus cinereus*), Eastern Red Bat (*Lasiurus borealis*), and Silver-haired Bat (*Lasionycteris noctivagans*) are anticipated to be listed as Endangered under the ESA as of January 2025. These species roost in trees, including in foliage clusters, and are known to forage within wooded areas and near water. As no MECP guidance has been provided for these species at this time, the assessment and avoidance for SAR bats as above should be used for these species until official guidance has been released.

- **Wood Thrush** (*Hylocichla mustelina*) is listed as Special Concern under the ESA and Threatened under the SARA, though it receives protection on provincial lands under the MBCA. Wood thrush nest in mature deciduous and mixed forests with well-developed undergrowth and may occur in association with WOD and WOM habitats present within the study area. As tree removals identified as a result of the Project are primarily street trees and do not occur within suitable nesting habitat, no negative impacts are anticipated.

5.5.3 FISH AND FISH HABITAT

5.5.3.1 Direct Impacts

No direct impacts are anticipated to occur within Tributary of Spring Creek as proposed bridge works only include extending the tops of the bridge walls and no in-water work is proposed. It is anticipated that these works can be fully mitigated through the implementation of appropriate ESC measures and measures to protect fish and fish habitat.

Proposed works for the culvert which conveys Mimico Creek under Torbram Road may include replacement with a longer culvert for the installation of a culvert extension. These works will result in direct impacts to the watercourse through the increase in culvert footprint area and the permanent alteration of fish habitat from open stream habitat to closed habitat.

5.5.3.2 Indirect Impacts

No indirect impacts to Tributary of Spring Creek are anticipated as proposed bridge works only include extending the tops of the bridge walls and no in-water work is proposed. It is anticipated that these works can be fully mitigated through the implementation of appropriate ESC measures and measures to protect fish and fish habitat.

Temporary disturbance of fish habitat (substrates, vegetation etc.) is anticipated to occur within the vicinity of proposed works for Mimico Creek. During in-water construction there is potential for fish to exhibit avoidance behaviour of the construction zone and actively disturbed areas which may result in the temporary displacement of fish during the construction phase. Fish passage within watercourse may also be restricted and disrupted for a short period of time as a result of construction activities as a result of the placement of cofferdams for site isolation to ensure construction in isolation of flowing water. Site isolation may also require temporary dewatering and bypass pumping if water is present within the watercourses at the time of in-water works. Due to construction activities along the banks (i.e. clearing, grubbing, excavation etc.) as well as in-water works there is potential for the disruption of sediments. With this disruption, there is an increased potential for sedimentation of habitats within the Project area as well as downstream habitats. Indirect impacts to the watercourse and downstream habitats may occur from faulty equipment and machinery yet it is anticipated these impacts can be fully mitigated through measures to protect fish and fish habitat.

5.4.4 MBCA SCHEDULE 1 NESTS

There is potential habitat for two species of MBCA Schedule 1 birds within the study area: Green Heron and Pileated Woodpecker. Potential nesting habitat for both species are limited to select naturalized areas. Green Heron nesting habitat may be present along the banks of Mimico Creek and the Tributary of Spring Creek. Pileated Woodpecker nesting habitat may be present in the woodlands along the Tributary of Spring Creek. There is limited work along the culverts of both watercourses, however, additional site visits to determine if Green Heron and Pileated Woodpecker nests are present should be conducted during detailed design.

5.5 General Mitigations

As identified in Policy 4.6.7.1 of the Brampton Official Plan, persons completing construction works in valleylands or watercourse corridors shall have no negative impacts on the significant natural features and their functions. As such, mitigation measures are recommended below as an effort to negate potential impacts to species and the function of their habitat.

5.5.1 VEGETATION REMOVAL AND GROUND DISTURBANCE

- Temporary Tree Protection Fencing shall be installed as described by the City of Brampton's Construction Standards L110 (City of Brampton 2024) for trees determined to be Protected by the Tree Inventory and Assessment and confirmed during detail design.
- Construction activities shall be limited to the work area, and if necessary, sensitive features should be demarcated if they are located immediately adjacent to the work zone.
- Where necessary, implement surface protection measures to minimize soil compaction.
- The Clean Equipment Protocol for Industry (Halloran et al., 2013) shall be implemented throughout the duration of construction.
- Implement dust control measures (watering, tarping of stockpiles containing fine material) for the suppression of fugitive dust;
- Implement standard BMPs for erosion and sediment control. The ESC plan shall consider the following:
  - Maintain vegetative buffers to the extent feasible;
  - Timing of vegetation removal shall consider rainfall and other weather conditions that could increase the likelihood of erosion and sedimentation.
  - Minimize the extent and duration of exposed soil and re-vegetate as soon as possible to help re-stabilize soils. Vegetation plantings shall include a seed mix that is appropriate to the area and similar to or better than pre-construction conditions;
  - Selection of ESC controls shall be appropriate for the site and extent of disturbance, and potential impacts to wildlife, such as entanglement (e.g., measures that contain plastic mesh or netting) or restriction to movement and access to habitat (as required) shall be considered; and
  - ESC measures shall be installed prior to vegetation removal and remain in place until vegetation has become established and soils re-stabilized
- Implement an emergency and response management plan to address the potential for spills. This includes the following:
  - Ensure all on-site hazardous materials are properly stored and located at least 30 m away from watercourses and other sensitive natural features, including all handling and refueling activities
  - All on-site materials shall be self-contained, maintained according to manufacturer's instructions and disposed of appropriately;
  - Develop and implement an emergency response management and monitoring plan that includes measures for preventing and addressing potential spills and monitoring activities;
  - Spill kits should be kept on-site and accessible at all times; and
  - All waste resulting from construction shall be removed from the site and disposed of at an appropriate facility. This includes packaging (bags, wraps, boxes, ties, etc.), waste materials (cement, grout, asphalt, or other substances), and ESC structures (silt fencing, flow checks, etc.) once permanent vegetation has established and ESC measures are no longer required.
- Following construction, restore disturbed areas to pre-construction conditions with native species (seed) suitable for the site as per OPSS MUNI 804.

5.5.2 TERRESTRIAL WILDLIFE AND SAR

- Where feasible, vegetation removal shall occur between October 1 – March 31 which is outside of the sensitive periods for most wildlife unless specified for specific species, locations or as dictated through permits and approvals (see mitigation for wildlife, below).

- If vegetation removal is required during the breeding bird season (April 1 – August 31), then nest sweeps shall be conducted prior to vegetation removal.
- If nest sweeps are required, they shall be carried out by an Avian Biologist and vegetation removals shall be completed within 48 hours of the conducted sweep.
- If removal of trees is required, removal shall occur outside of the active bat season (April 1 to September 30) to prevent impacts to SAR bats. If this timing window cannot be respected, consultation with MECP should be carried out to determine next steps.
- If wildlife is encountered during construction, whenever possible, work shall be temporarily suspended until the species is out of harm's way.
- Should any SAR, including those not discussed in the report, be observed during construction, activities that could have a negative impact on the species or habitat shall be temporarily suspended or modified and MECP shall be contacted immediately to discuss mitigation options.
- Where feasible, minimize the extent and duration of construction noise and lighting during sensitive seasons and to daylight hours.
- Restrict construction activities to work areas.
- Avoid idling and ensure construction vehicles and machinery are kept in good repair.

5.5.3 FISH AND FISH HABITAT

- Construction activities with potential for direct and/or indirect impacts to fish habitat including works associated with culvert replacements or extensions should be conducted in dry conditions in order to minimize impacts to aquatic resources and fish habitat. These works should be completed within the appropriate in-water timing window for construction activities of July 1st – March 31st as provided by MNR to avoid the critical spawning, rearing and migration periods for fish.
- Works along banks and in-water works should be isolated from the watercourse and scheduled when flows are low or absent and avoid seasonally wet periods (i.e. spring) and high-volume storm events.
- Equipment should arrive on site in clean and working condition and be checked and maintained throughout construction.
- A spill response plan shall be developed prior to commencement of construction activities which outlines an appropriate response system and contingency measures in the event a spill occurs.
- Standard environmental controls and measures to protect fish and fish habitat including the use of cofferdams, installation of appropriate ESC measures and salvage of fish from work areas should be implemented prior to construction activities.

5.5.4 ENVIRONMENTAL MONITORING AND TRAINING

- Daily visual inspection of the site prior to construction is required to determine if any wildlife has entered the site.
- Construction equipment and machinery left for prolonged periods of time shall be inspected for bird nests.
- Provide site-specific SAR information to on-site staff to include a description of relevant SAR, photos of SAR that may be present on site, appropriate avoidance measures and emergency contact numbers in case of incident with SAR.

6. Permits, Authorizations and Approvals

As the Project design is not yet complete, the impact assessment as it relates to the natural environment was not completed under this report at this time. This section below generally describes future considerations of possible approvals required and summarized by levels of approval agencies.

6.1 Federal

6.1.1 FISHERIES ACT, DFO

Since proposed Project works are anticipated to result in direct impacts to fish habitat and the permanent alteration of habitat at Mimico Creek, there is potential that these works may result in the Harmful Alteration, Disruption and/or Destruction (HADD) of fish habitat. Therefore, the Project may need to be referred to DFO, requesting a project review under the Fisheries Protection Provisions of the *Fisheries Act*. If DFO determines that the Project will not result in the death of fish or the HADD of fish habitat the Project may proceed without a *Fisheries Act* Authorization. Alternatively, if DFO determines that the Project will result in the death of fish or the HADD of fish habitat, a *Fisheries Act* Authorization will be required along with the development of an offsetting plan to compensate for impacts to habitat.

6.1.2 MIGRATORY BIRDS CONVENTION ACT, ECCC

Under New Migratory Birds Regulations (ECCC 2022) of the MBCA, migratory birds and associated nests are protected when active and in use. The exception applies to select Schedule 1 birds such as herons and the Pileated Woodpecker, where the protection of their nest exists year-round, and a designated waiting period applies.

Based on previous records of Green Heron and Pileated Woodpeckers listed in the OBBA, these species have potential to occur in the study area. For non-Schedule 1 bird nests, applying timing windows is recommenced to avoid contravention of the MBCA by conducting planned work outside of the Breeding Bird Window (April 1 – Aug 31) of each year. As well, if trees are expected to be removed, a sweep for possible bird nests, in particular for Green Heron and Pileated Woodpeckers, is required to determine their presence and appropriate waiting period. If a Schedule 1 nest was discovered where impacts are expected, adjustments to design should be completed to avoid interaction with the nest. If design changes are not feasible, it is required by MBCA to conduct yearly surveys, proving nest inactivity and abandonment, and submission to the Abandoned Nest Registry.

6.2 Provincial

6.2.1 ENDANGERED SPECIES ACT, MECP

Potential habitat for SAR is present for terrestrial species, specifically for SAR bats.

In addition, timing windows for SAR species should be followed:

- Avoid tree removal during the bat active season (April 1 – September 30).
- Bird breeding seasons (April 1 – August 31).

Given the above, it is not anticipated that a permit under the ESA is required for the Project. However, if detail design cannot avoid encroachment on natural areas or if bat timing windows cannot be avoided, consultation with MECP is required to discuss potential impacts to SAR through the permit process.

6.2.2 CONSERVATION AUTHORITIES ACT, TRCA

Since the Project falls within TRCA Regulated Area (see **Appendix A, Figure 1**), consultation with TRCA is required to discuss potential impacts, mitigation and permitting requirements pertaining to works occurring within the Regulated Area. The MNR confirmed that Mimico Creek and Spring Creek has a warmwater thermal regime and as such, all in-water work should take place during the July 1st – March 31st timing window.

6.3 Municipal

6.3.1 TREE PRESERVATION BYLAW AND WOODLOT CONSERVATION BYLAW, CITY OF BRAMPTON

The City of Brampton regulates the injury and removal of trees with a DBH of 30 centimeters (cm) or greater on through the Tree Preservation By-law 317-2012 (City of Brampton 2012) and the injury and removal of trees of any size on municipal parkland through the Woodlot Conservation By-law 316-2012 (City of Brampton 2012). Exemptions are available under each bylaw, such as those activities or matters undertaken by a municipality or a local board of a municipality.

No trees protected under the Woodlot Conservation Bylaw are expected to be impacted by the Project. Tree removal is expected on public and private lands as shown in **Section 4.3.1**, where the Tree Preservation By-law applies.

Fees associated with tree removal permits are waived for Capital Improvement Projects, however, are still subject to the Tableland and Tree Assessment Guidelines (City of Brampton 2023). The City may require an arborist report be prepared. When detailed design is finalized the requirements under these Bylaws will need to be confirmed.

6.3.2 PRIVATE LANDS - TREE PRESERVATION BYLAW

Impacts to trees on private lands are subject to the Tree Preservation Bylaw that outlines no person shall injure, cause or permit the injuring of a tree unless exempt or allowed through a permit. Exceptions to this Bylaw include trees less than 30 cm DBH or trees located within 2 m of an occupied building.

A Permit to Injure a Tree may be required if trees on private lands are to be removed. When detailed design is finalized, the requirements under the Bylaw will need to be confirmed along with an updated tree inventory.

6.3.3 TABLELAND AND TREE ASSESSMENT GUIDELINES

The City of Brampton's Tableland and Tree Assessment Guidelines (City of Brampton 2023) provides a framework for projects with expectation of tree removal by providing compensation ratios and outlining report requirements. As mentioned in Section 6 of the Guidelines, capital projects will follow the City's tree standards and compensation ratios as shown in the Tableland and Tree Assessment Guidelines.

Compensation ratios for the loss of healthy tableland trees is dependent on the DBH of the removed tree, where a larger tree would require more replacement trees as shown below (**Table 12**).

TABLE 12 – COMPENSATION PLANTING RATIOS (CITY OF BRAMPTON 2023)

DBH (cm) of Removed Tree	Ratio of Replacement to Removed
7-19	1:1
20-29	2:1
30-39	3:1
40-49	4:1
50-59	5:1
60-69	6:1
70-79	7:1
80-89	8:1
90-99	9:1
100-109	10:1

Compensation trees are expected to be 70 mm DBH unless otherwise approved by the City, where planting standards must exceed the City's tree planting standards outlined in Section 3.1 of the Guideline.

The preliminary breakdown of DBH categories according to replacement ratios, and total number of trees expected to be replaced are shown in Table 13.

TABLE 13 – PRELIMINARY TREE REMOVAL COMPENSATION FOR HEALTHY TABLEAND TREES

DBH (cm) of Removed Tree	# of City Trees for Removal	# of Private Trees for Removal	Ratio of Replacement to Removed	# of City Replacement Trees Expected	# of Private Replacement Trees Expected	Total # of Replacement Trees Expected
7-19	26	0	1:1	116	4	120
20-29	116	4	2:1	126	12	138
30-39	63	6	3:1	66	15	81
40-49	22	5	4:1	36	28	64
50-59	9	7	5:1	5	5	10
60-69	1	1	6:1	0	0	0
70-79	0	0	7:1	0	0	0
Total	**237**	**23**	-	**349**	**64**	**413**

The City's cash-in-lieu program is also available for projects where compensation planting cannot occur on site, excluding natural heritage feature compensation. The program is applicable to all projects where healthy tableland trees would be removed, including capital projects by the City of Brampton and/or the Region of Peel. Compensation rate is listed as $650 per tree.

7. Conclusion

This Natural Environment Assessment report was completed based on current understanding of the scope of proposed work and known natural environment existing conditions in the study area. Natural heritage features within the study area are limited due to the intensive urbanization and existing transportation infrastructure.

Natural heritage features present within the study area include:

- The Tributary of Spring Creek and Mimico Creek are located within a Valleylands and Watercourse Corridor.
- The Tributary of Spring Creek and Mimico Creek area located within TRCA Regulated Areas and part of the TRCA's Etobicoke Mimico Watershed Natural Heritage System.
- Jayfield Park and the parklands of Chinguacousy Recreational Trail occur within the study area.
- The riparian area of the Tributary of Spring Creek and Mimico Creek are part of the Region of Peel Greenlands System under the associated Official Plan.

Terrestrial and aquatic surveys were conducted to document existing conditions, identify significant and sensitive habitat features and determine possible SAR or SoCC presence and habitat availability. The SAR and SoCC Screening identified 4 species with potential to occur within the study area.

A tree inventory, botanical assessment, and ELC classifications were conducted. These indicated that the predominate vegetation communities consisted of invasive species with heavy understory vegetation and habitat with potential suitability for 1 SoCC species. These areas are concentrated along the riparian edges of the Tributary of Spring Creek and were determined to be Candidate SWH for Habitat for SoCC.

Following completion of preliminary design, additional studies should be completed with the following surveys:

- Arborist Report with updated tree inventory with high accuracy location data (1 m accuracy or better), updated dripline measurements and condition, and access to private trees with expected impacts.
- MBCA Schedule 1 nest surveys for the presence of Green Heron and Pileated Woodpecker.

Mitigation measures have been recommended to reduce or eliminate impacts. Consultation with TRCA, MECP, DFO and the City of Brampton is recommended regarding additional approvals/requirements.

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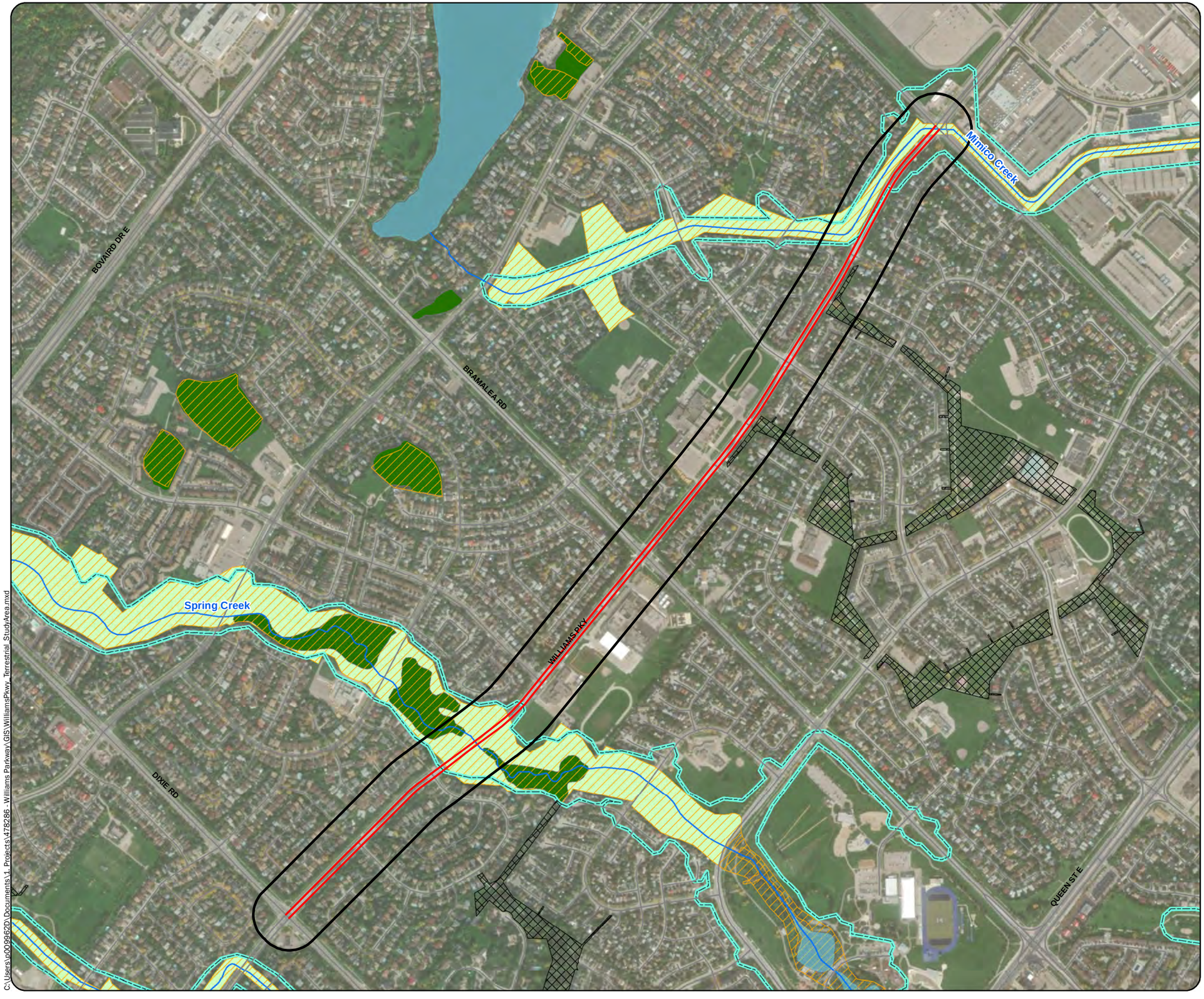
APPENDIX A
(PROJECT MAPS)

FIGURE 1 - STUDY AREA



Key Map

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)
- Linkages and Enhancement Areas (City of Brampton)
- Natural Heritage Systems (City of Brampton)
- TRCA Regulated Area (Approximate)
- Waterbody (Peel Region)
- Woodland (Peel Region)
- Valleyland (City of Brampton)

1:10,000 Km
0 0.25 0.5

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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FIGURE 2 (1 of 5) - VEGETATION COMMUNITIES

Key Map

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)
- Ongoing Restoration Works (City of Brampton)

Ecological Land Classification (ELC)

- Constructed
- Fencerow
- Meadow
- Open Aquatic
- Successional Woodland
- Thicket

1:2,000 — 0, 50, 100 Meters

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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FIGURE 2 (2 of 5) - VEGETATION COMMUNITIES

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)
- Ongoing Restoration Works (City of Brampton)

Ecological Land Classification (ELC)

- Constructed
- Fencerow
- Meadow
- Open Aquatic
- Successional Woodland
- Thicket

1:2,000 Meters

0 50 100

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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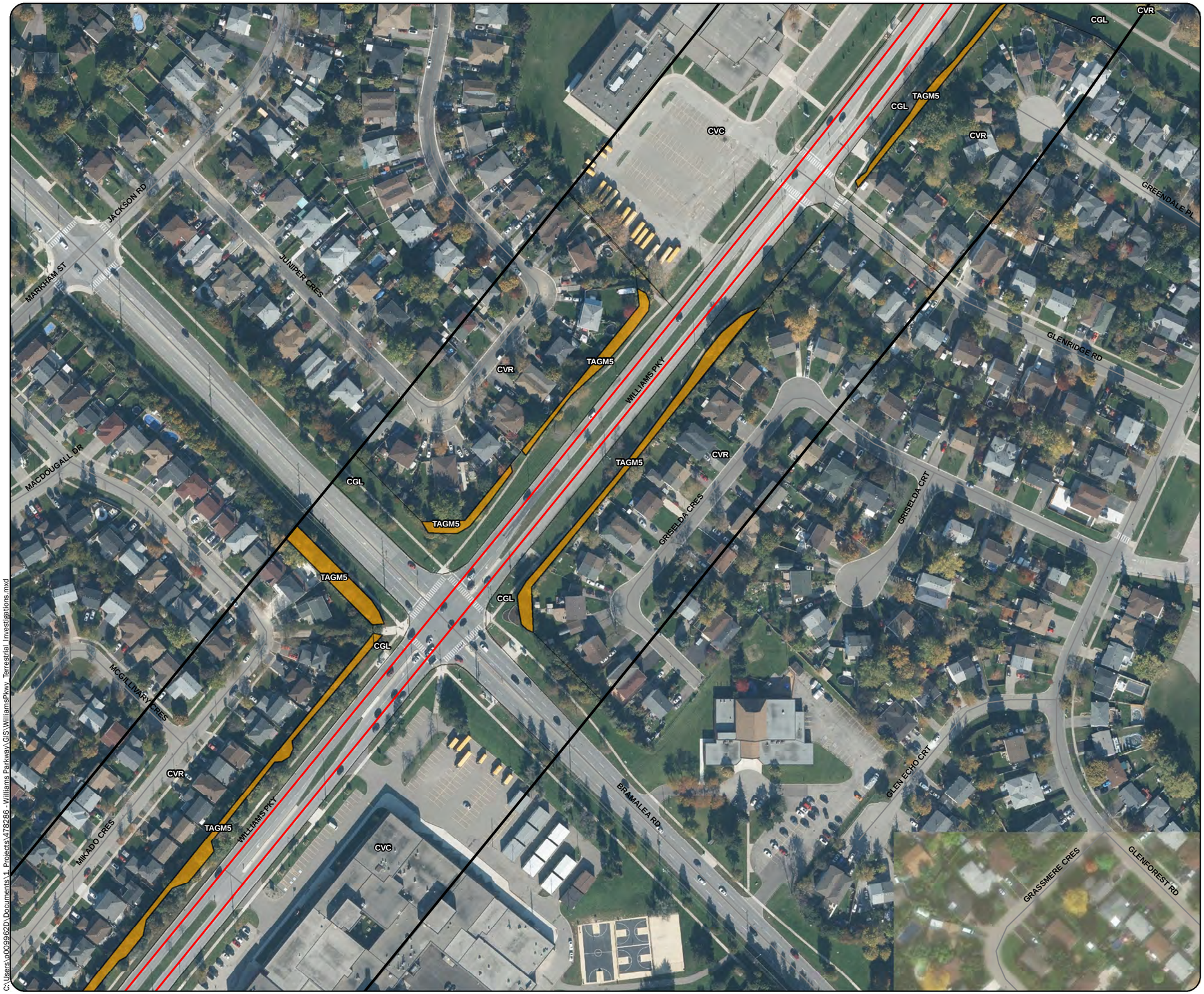
FIGURE 2 (3 of 5) - VEGETATION COMMUNITIES



Key Map

1:75,000

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)
- Ongoing Restoration Works (City of Brampton)

Ecological Land Classification (ELC)

- Constructed
- Fencerow
- Meadow
- Open Aquatic
- Successional Woodland
- Thicket

1:2,000 Meters

0 50 100

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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FIGURE 2 (4 of 5) - VEGETATION COMMUNITIES

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)
- Ongoing Restoration Works (City of Brampton)

Ecological Land Classification (ELC)

- Constructed
- Fencerow
- Meadow
- Open Aquatic
- Successional Woodland
- Thicket

1:2,500 Meters
0 50 100

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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FIGURE 2 (5 of 5) - VEGETATION COMMUNITIES

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Key Map

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)
- Ongoing Restoration Works (City of Brampton)

Ecological Land Classification (ELC)

- Constructed
- Fencerow
- Meadow
- Open Aquatic
- Successional Woodland
- Thicket

1:2,000

0 50 100 Meters

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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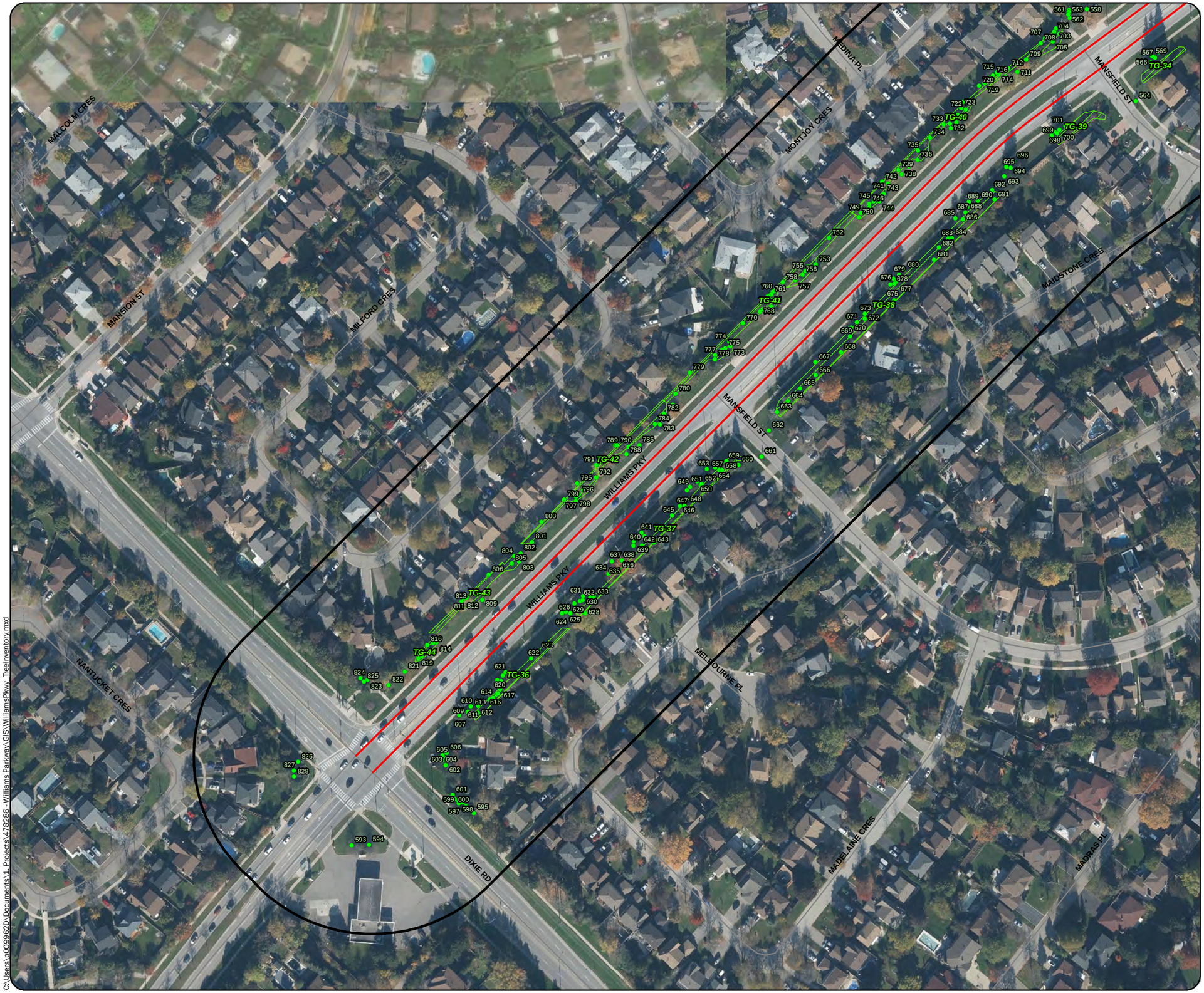
FIGURE 3 (1 of 5) - TREE INVENTORY



Key Map

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)

Tree Assessment

- Tree Inventory
- Tree Grouping

1:2,000 Meters
0 50 100

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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FIGURE 3 (2 of 5) - TREE INVENTORY

Key Map

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)

Tree Assessment

- Tree Inventory
- Tree Grouping

1:2,000 Meters
0 50 100

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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FIGURE 3 (3 of 5) - TREE INVENTORY

Key Map

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)

Tree Assessment

- Tree Inventory
- Tree Grouping

1:2,000 Meters
0 50 100

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

Natural Environment Assessment Report
Improvements to Williams Parkway from Dixie Road to Torbram Road
Municipal Class Environmental Assessment Study

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FIGURE 3 (4 of 5) - TREE INVENTORY

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Key Map

LEGEND

- Road
- Watercourse (Peel Region)
- Project Extent
- Study Area (120 m)

Tree Assessment

- Tree Inventory
- Tree Grouping

1:2,500

0 50 100 Meters

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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FIGURE 3 (5 of 5) - TREE INVENTORY

Key Map

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- Tree Inventory
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1:2,000 Meters

0 50 100

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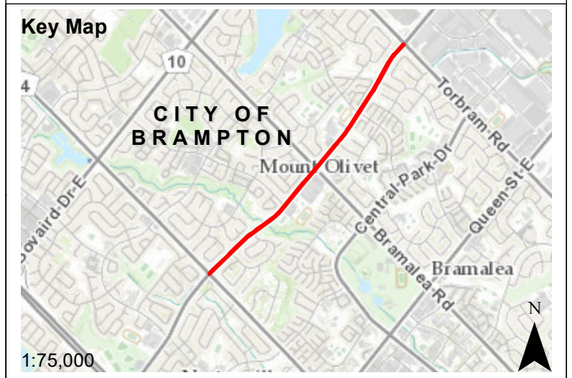
FIGURE 4 - FISH HABITAT



LEGEND

- Project_Extent
- Road
- Flow Direction
- Trail

Significant Fish Habitat

- Spawning Habitat

Watercourse

- Permanent, Warmwater, Direct Fish Habitat

1:10,000 Km
0 0.25 0.5

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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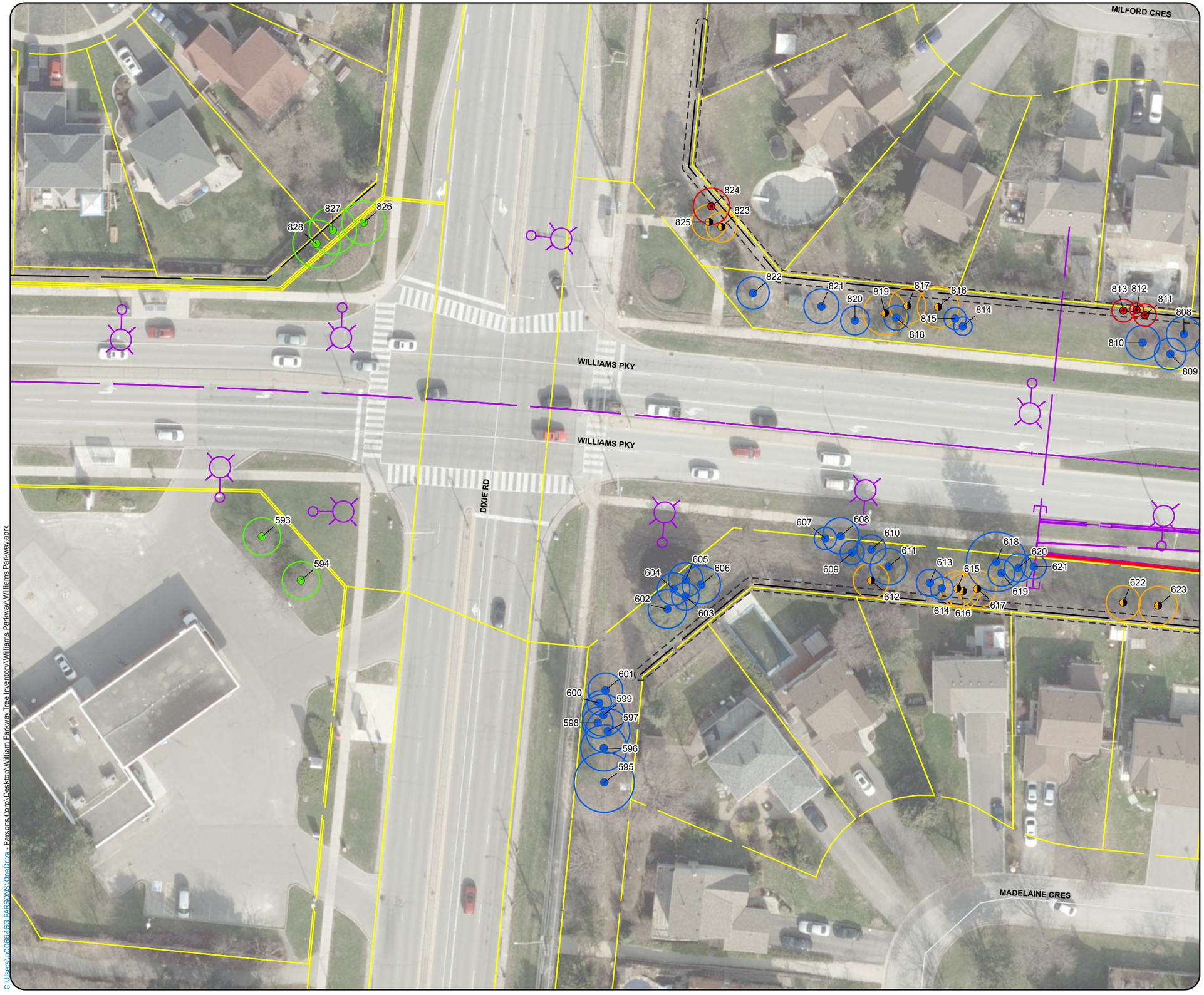
APPENDIX A

Figure 5 - Preliminary Tree Removal Assessment



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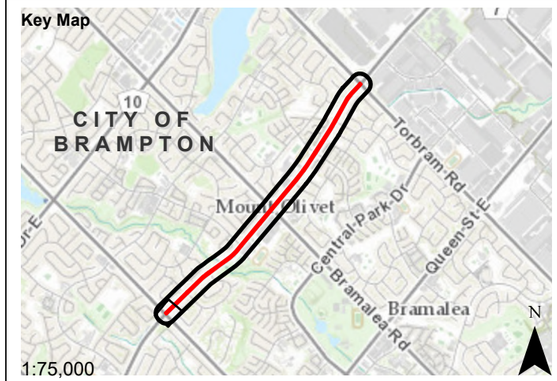

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LEGEND

- Road
- Watercourse (Peel Region)
- Potential Sound Wall
- Design Grading
- Property Lines
- Project Design
- Sound Wall Buffer

Critical Root Zone (CRZ)

- Retain
- Injure
- Protect
- Remove

Tree Location

- Retain
- Injure
- Protect
- Remove

1:600

0 5 10 20 30 Meters

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

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Figure 5 - Preliminary Tree Removal Assessment

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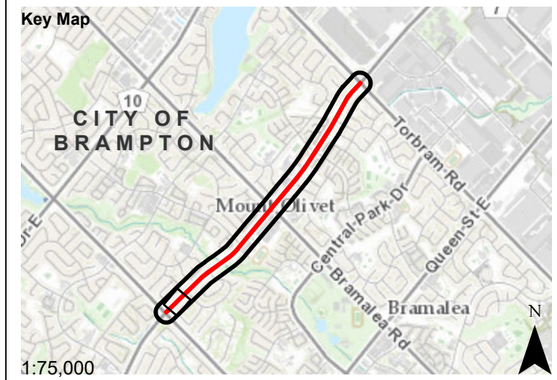

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1:600 Meters
0 5 10 20 30

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APPENDIX A

Figure 5 - Preliminary Tree Removal Assessment

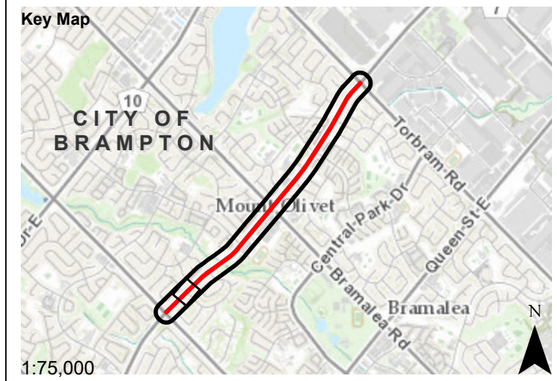
MILFORD CRES

WILLIAMS PKY

MANSFIELD ST

MADELAINE CRES

Key Map



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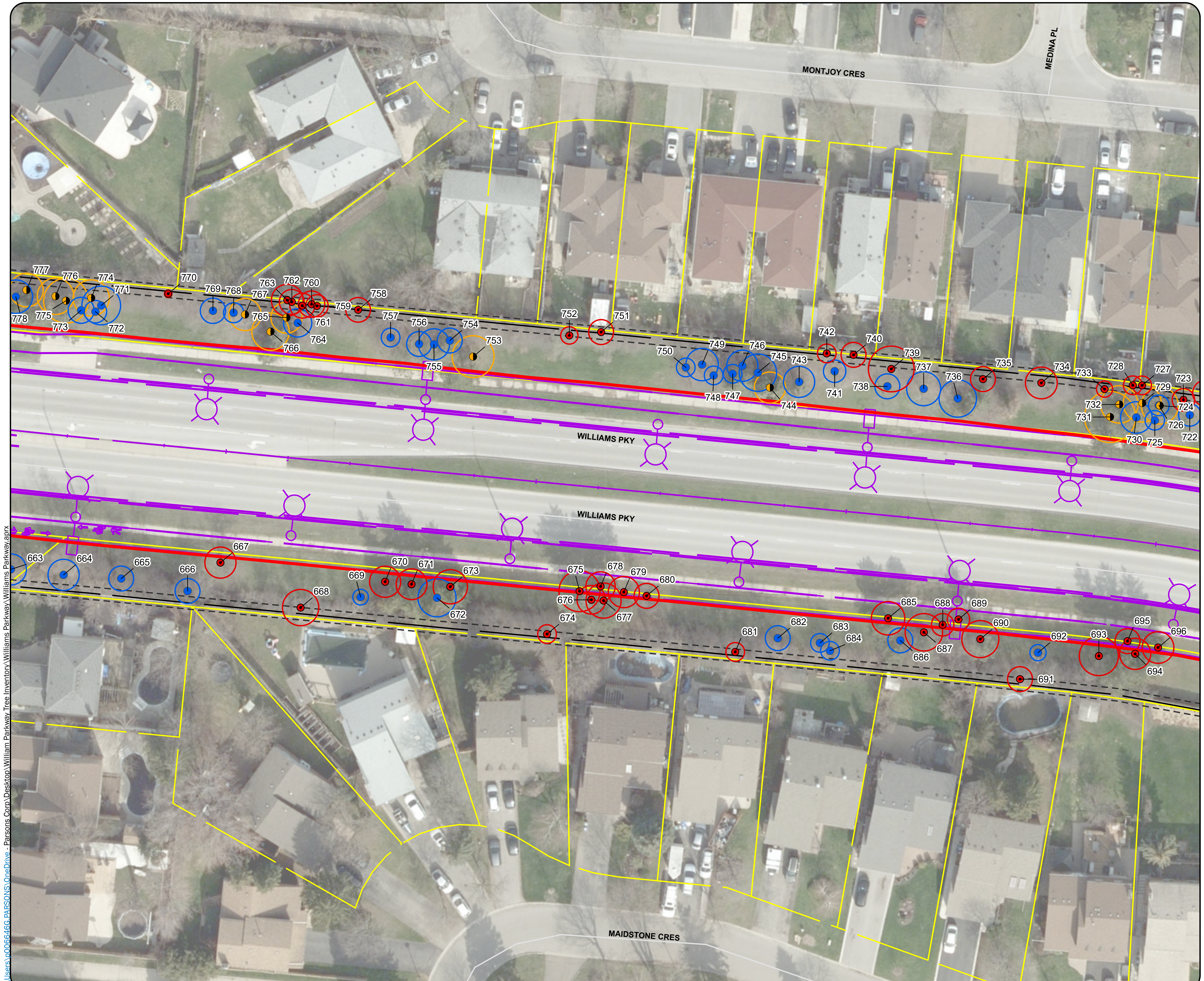

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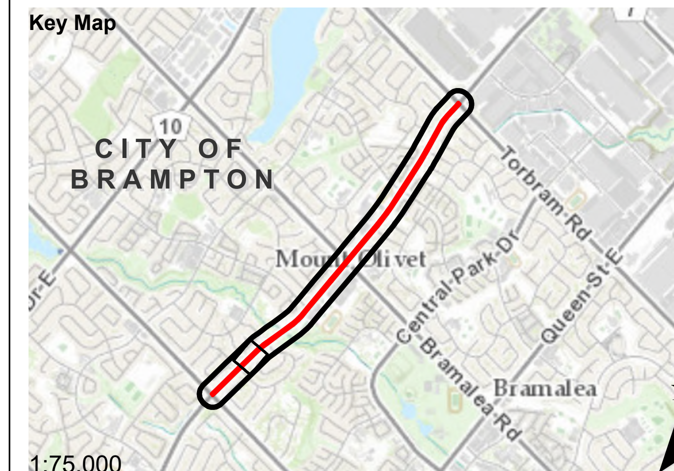

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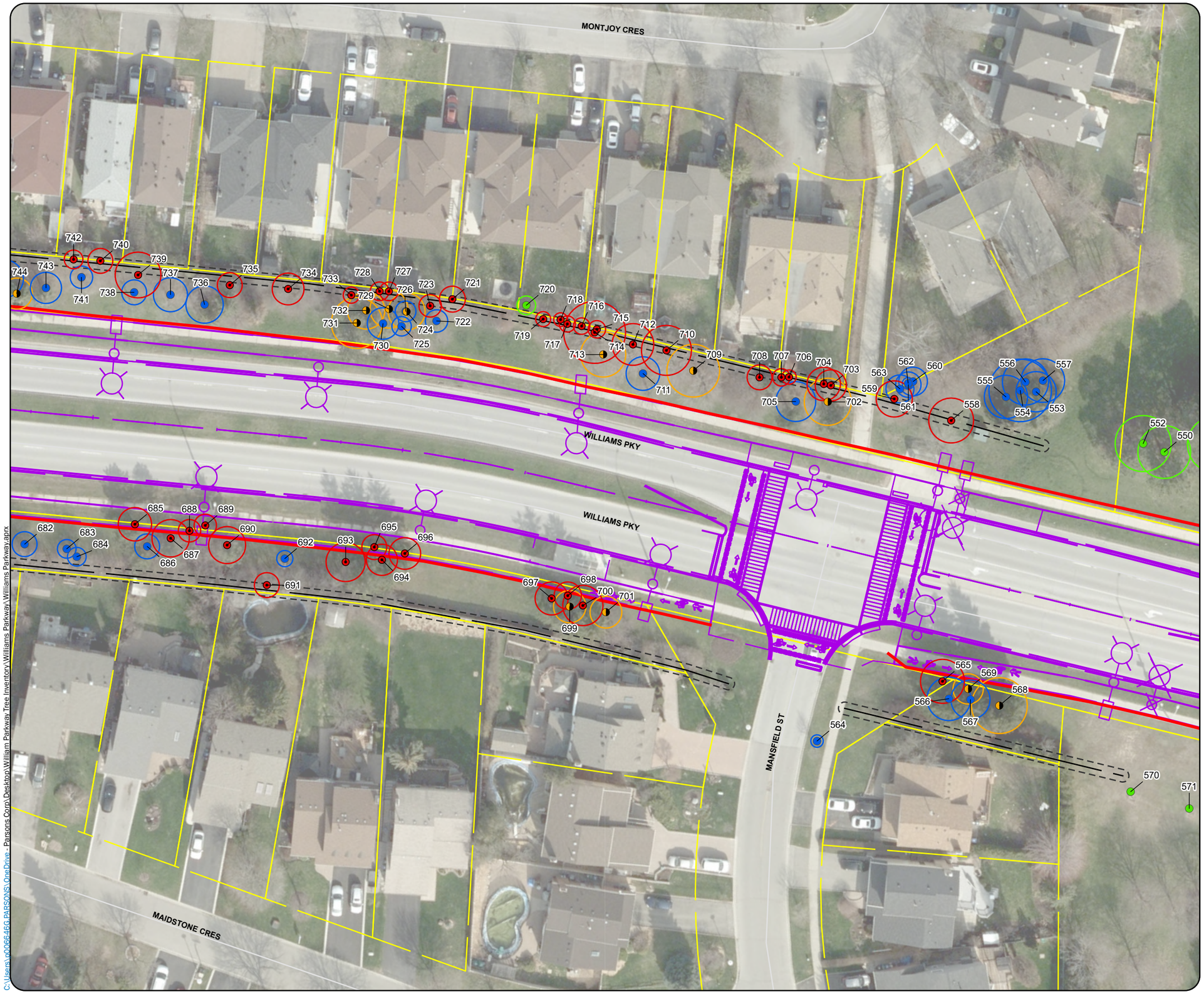

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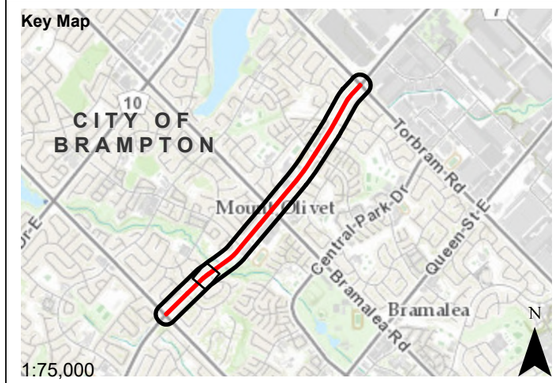

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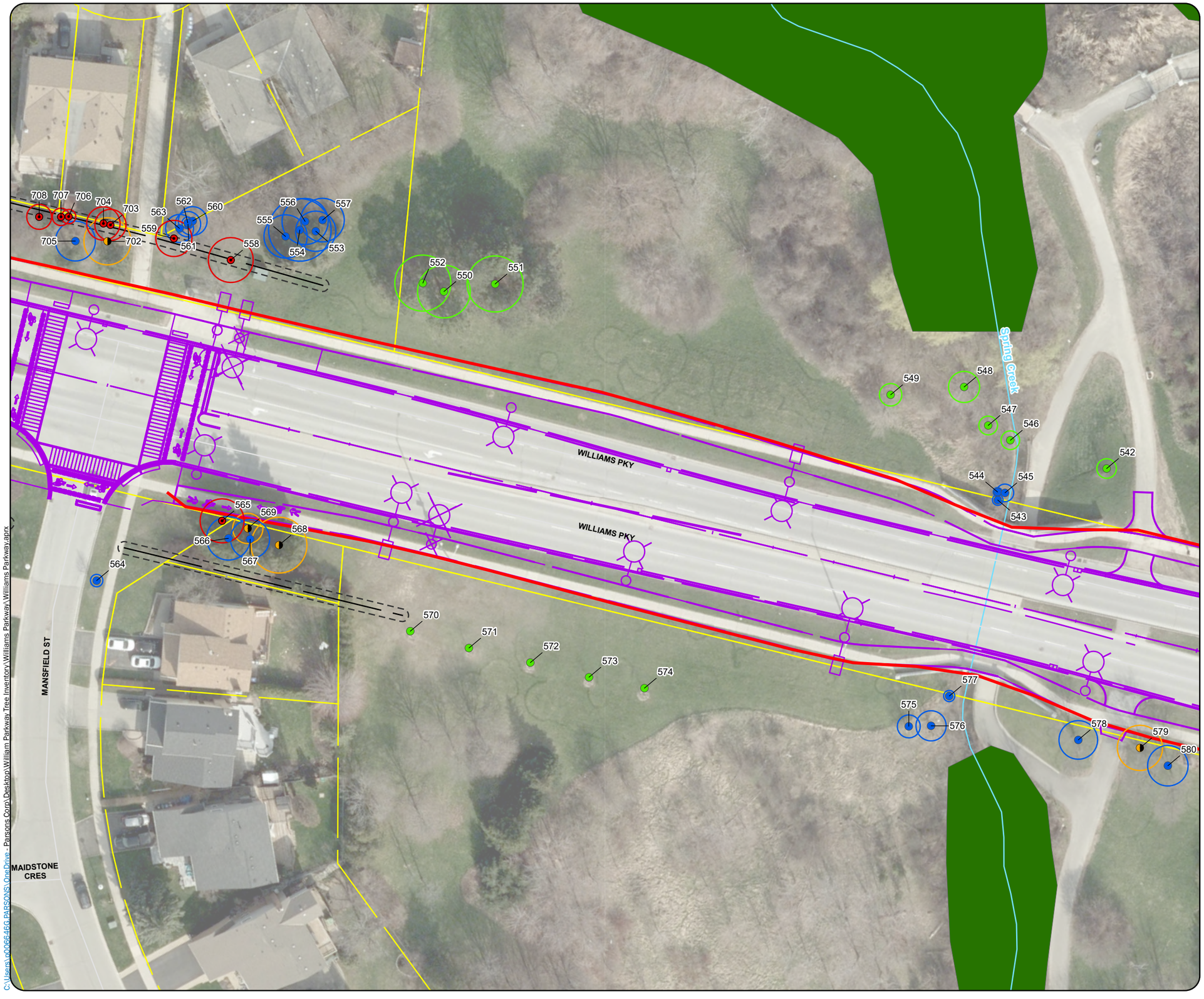

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APPENDIX A
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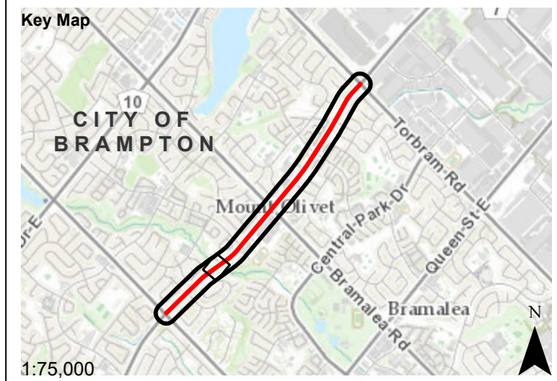

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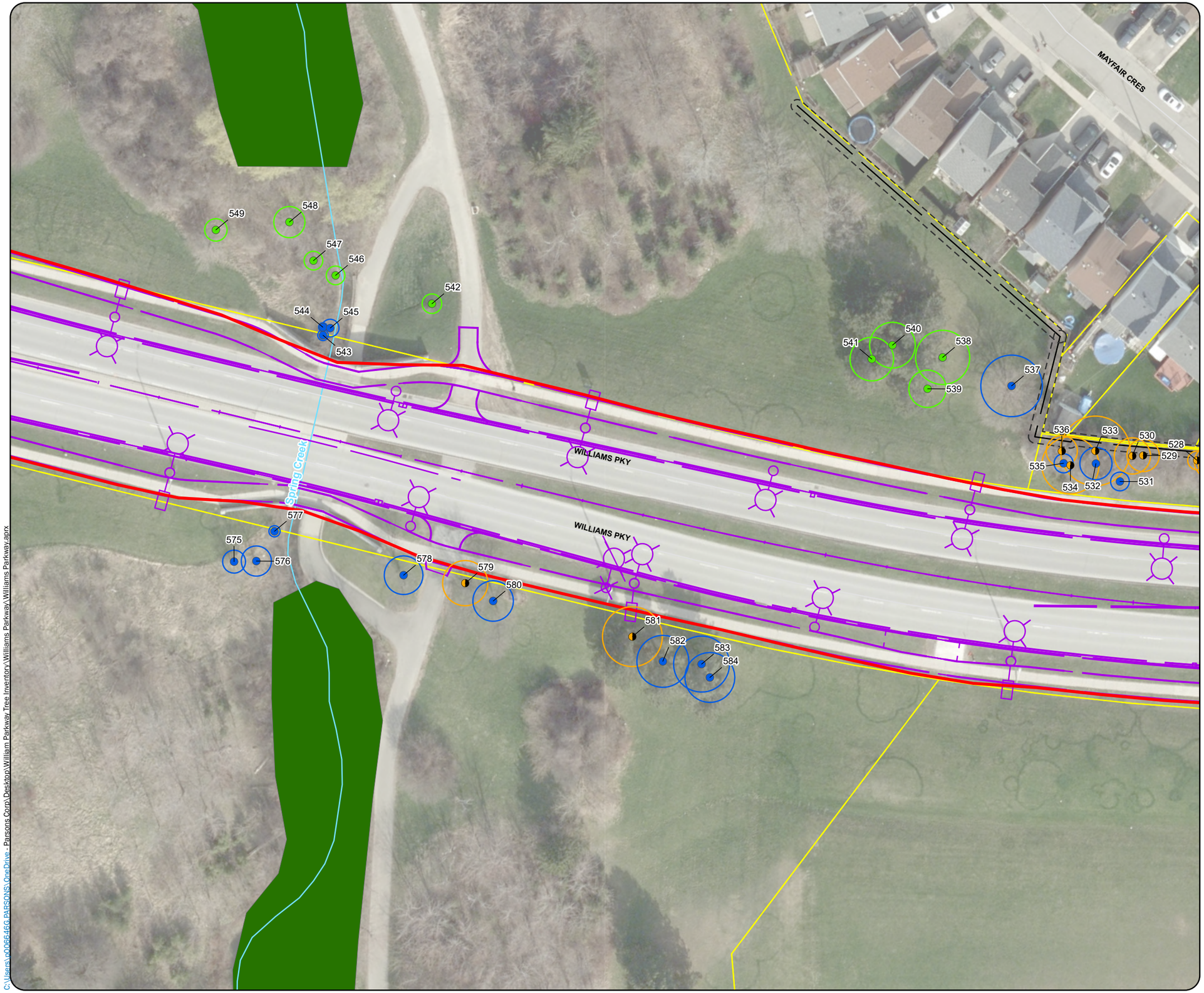

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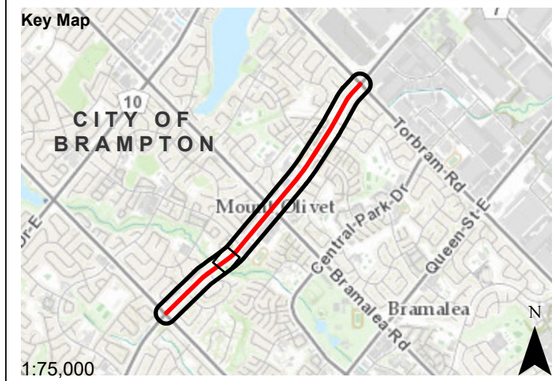

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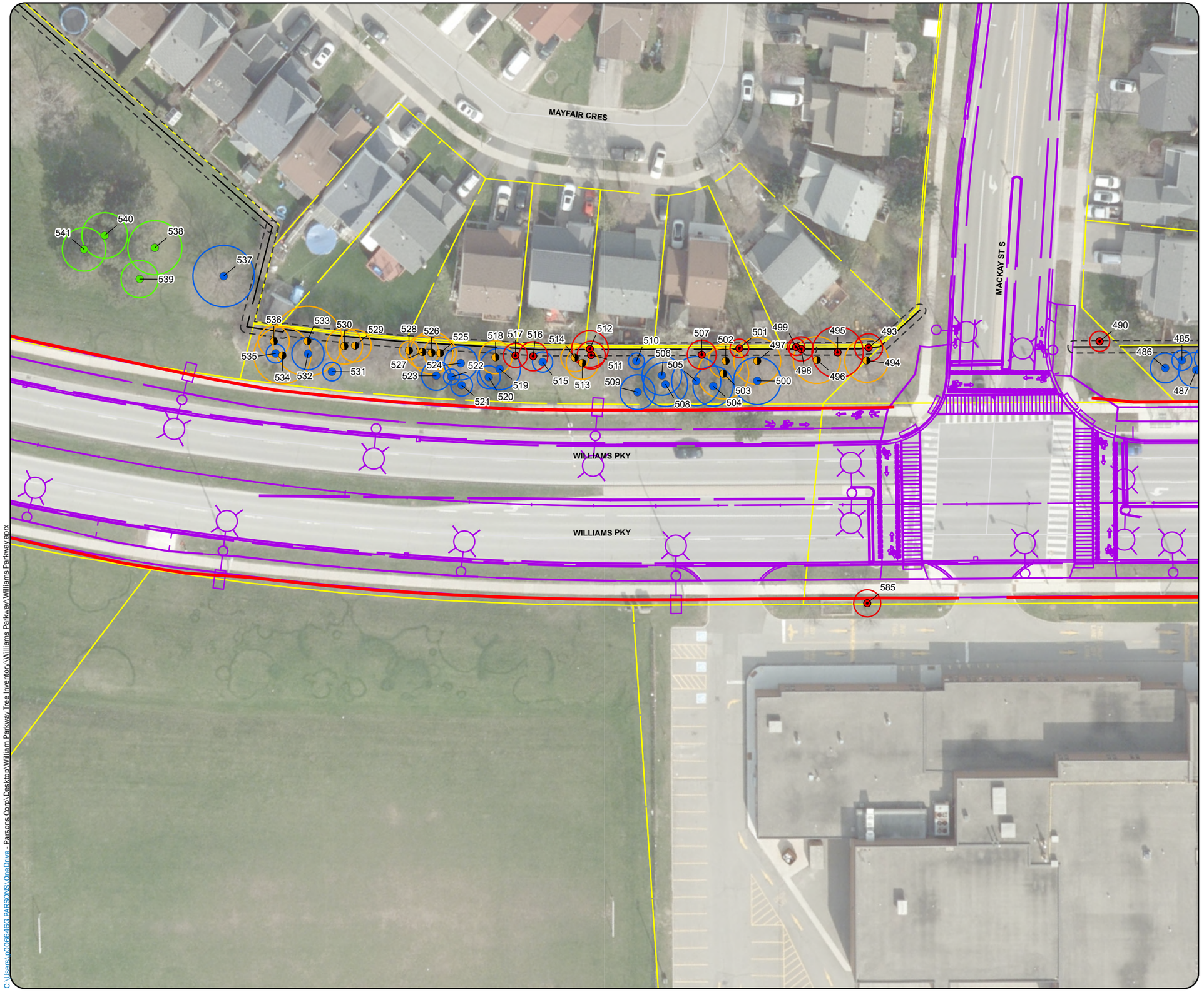

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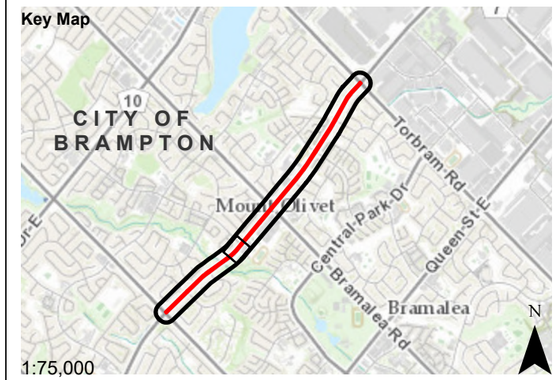

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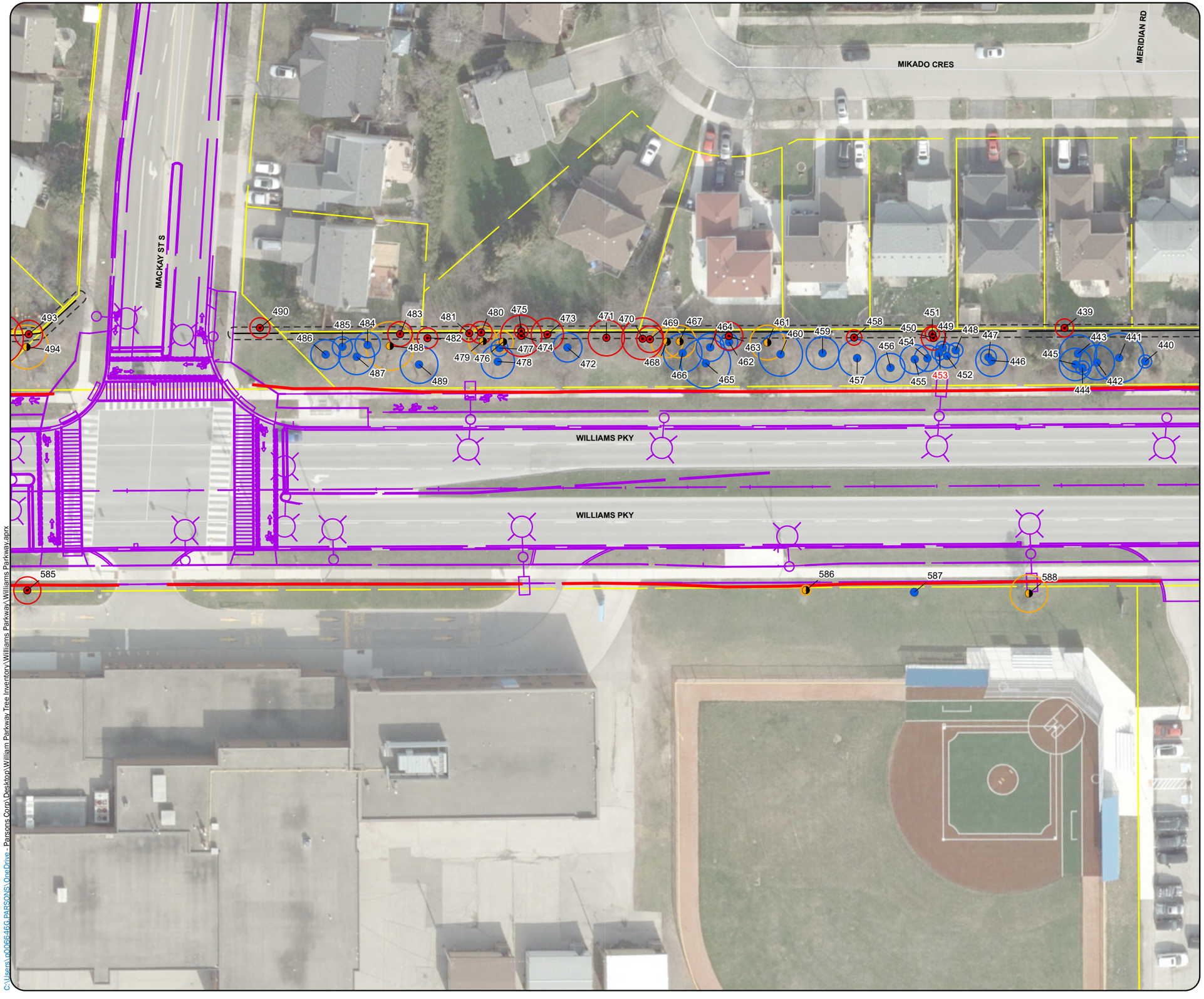

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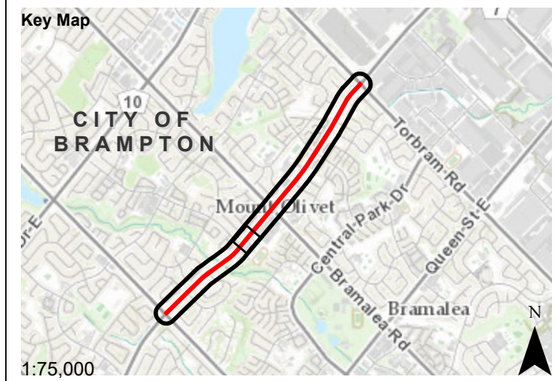

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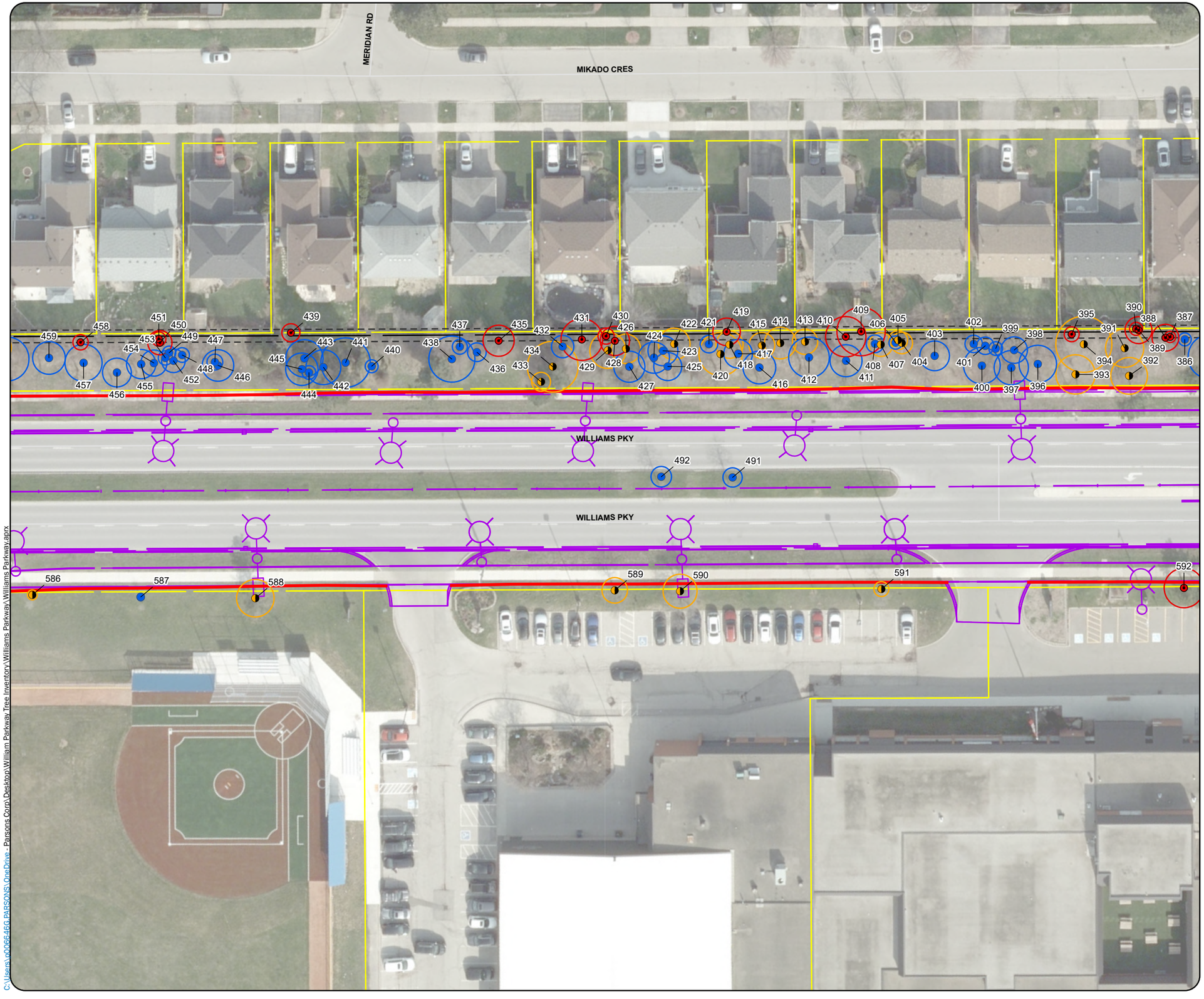

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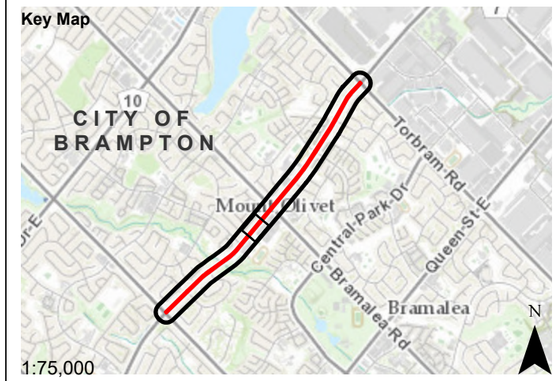
Key Map



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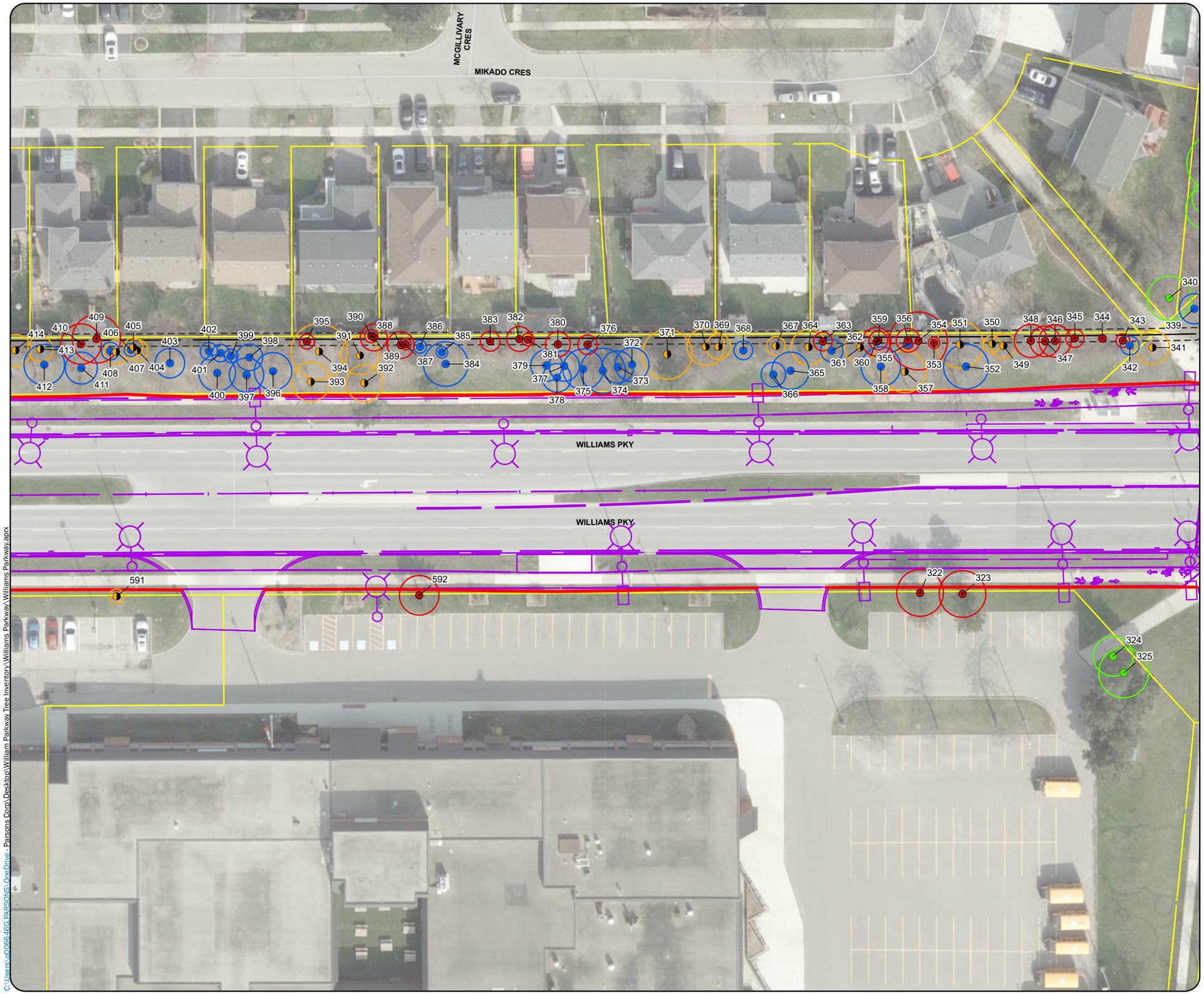

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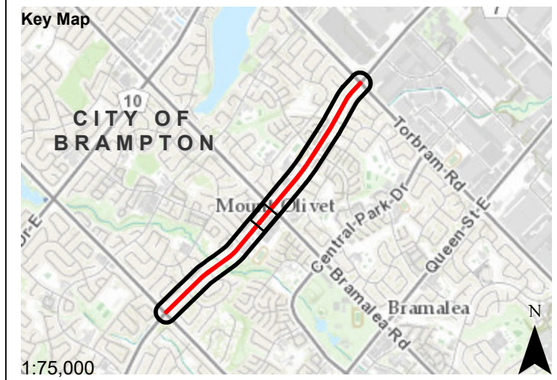

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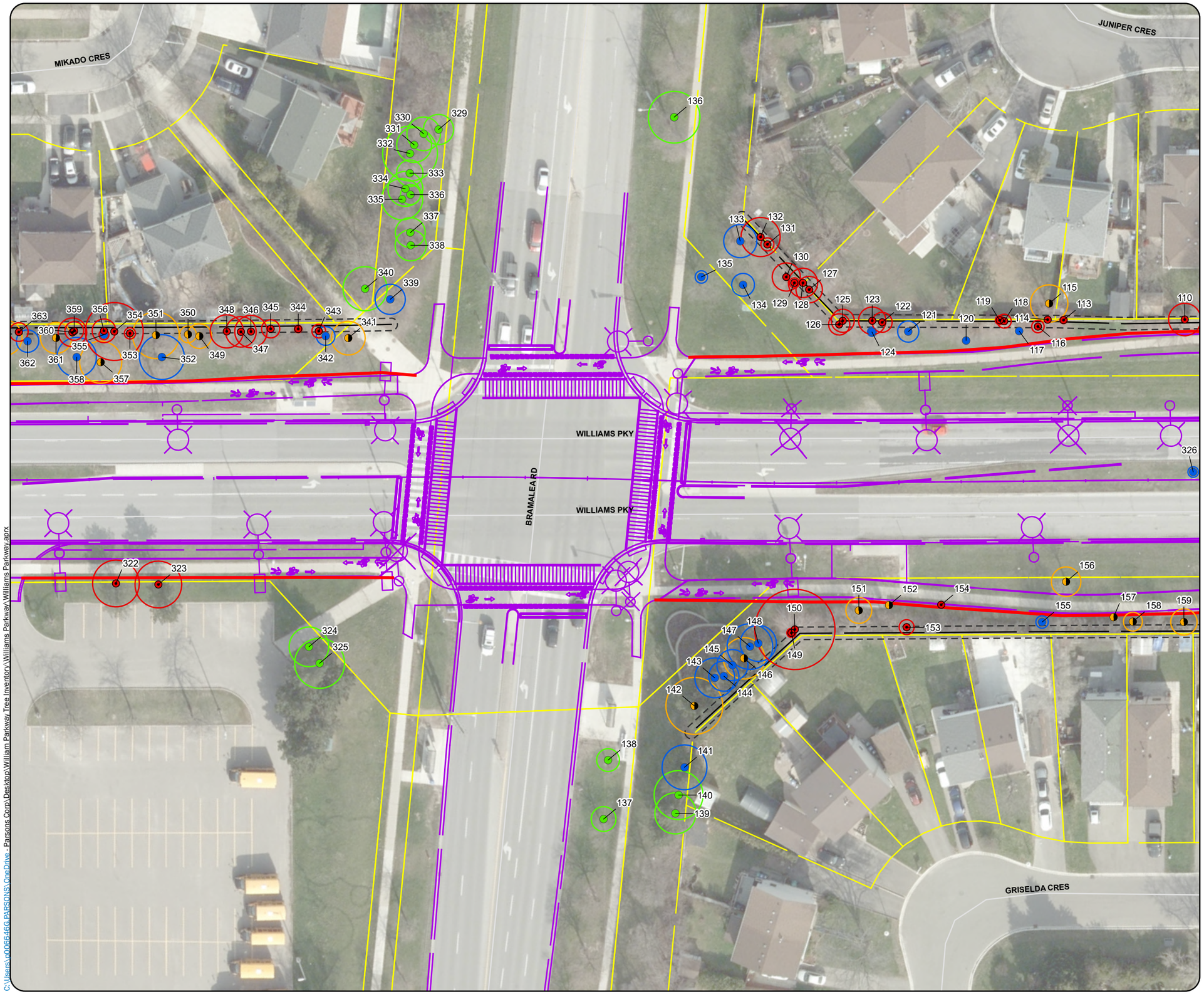

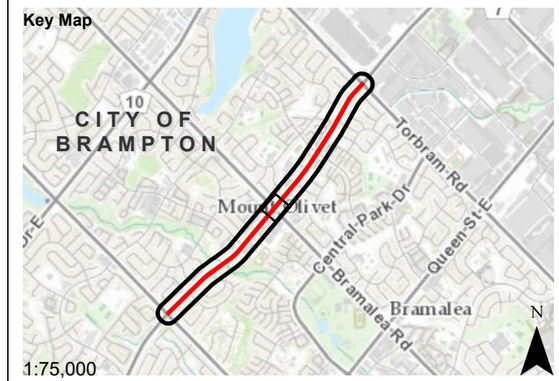

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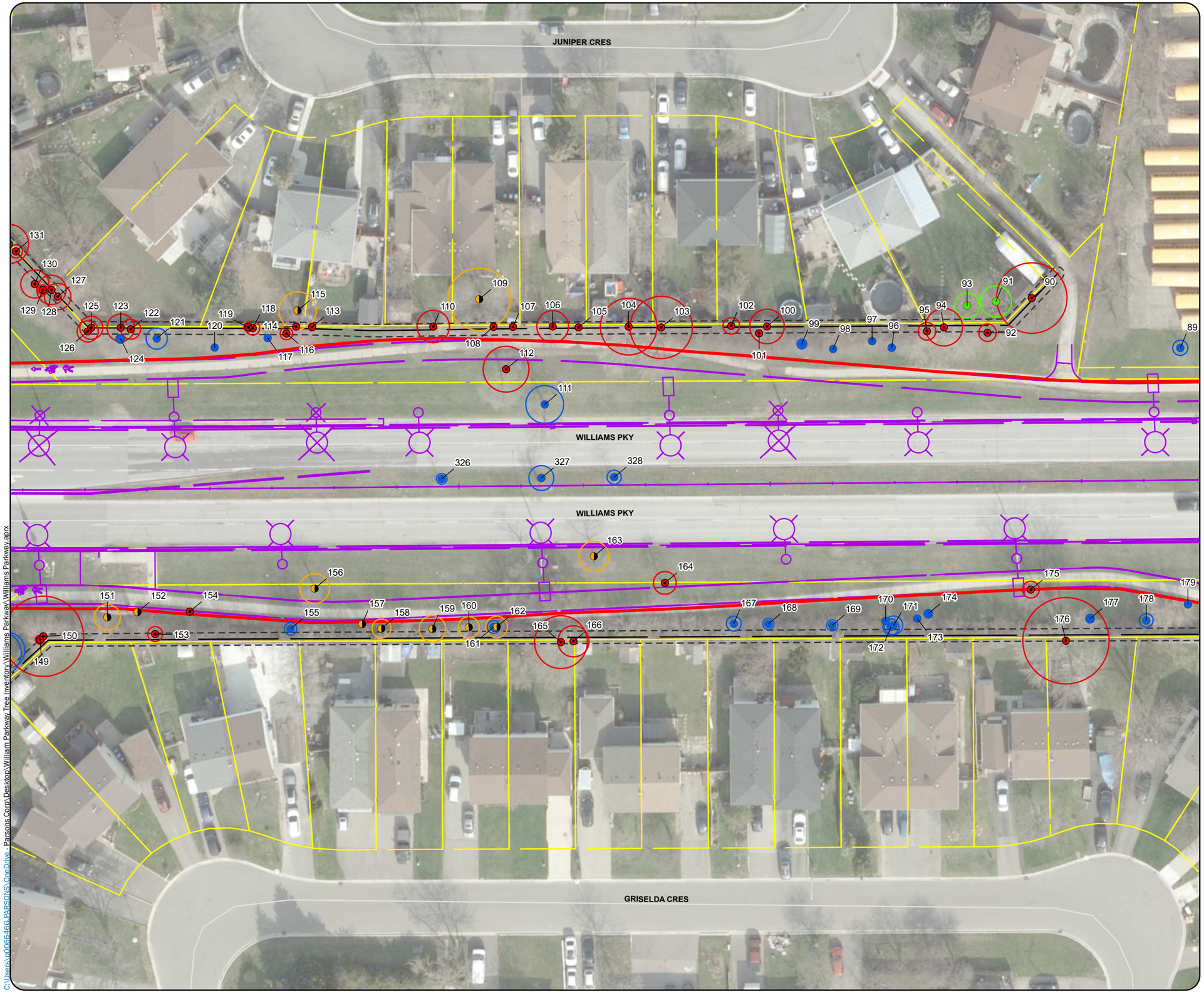

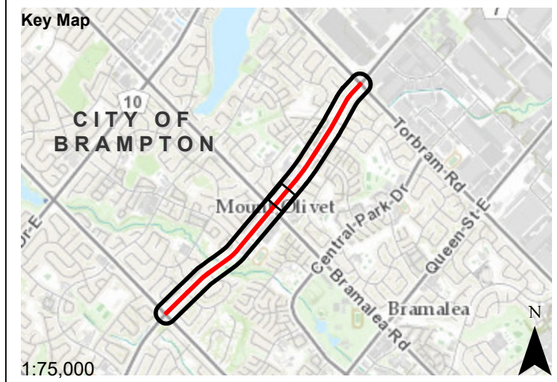

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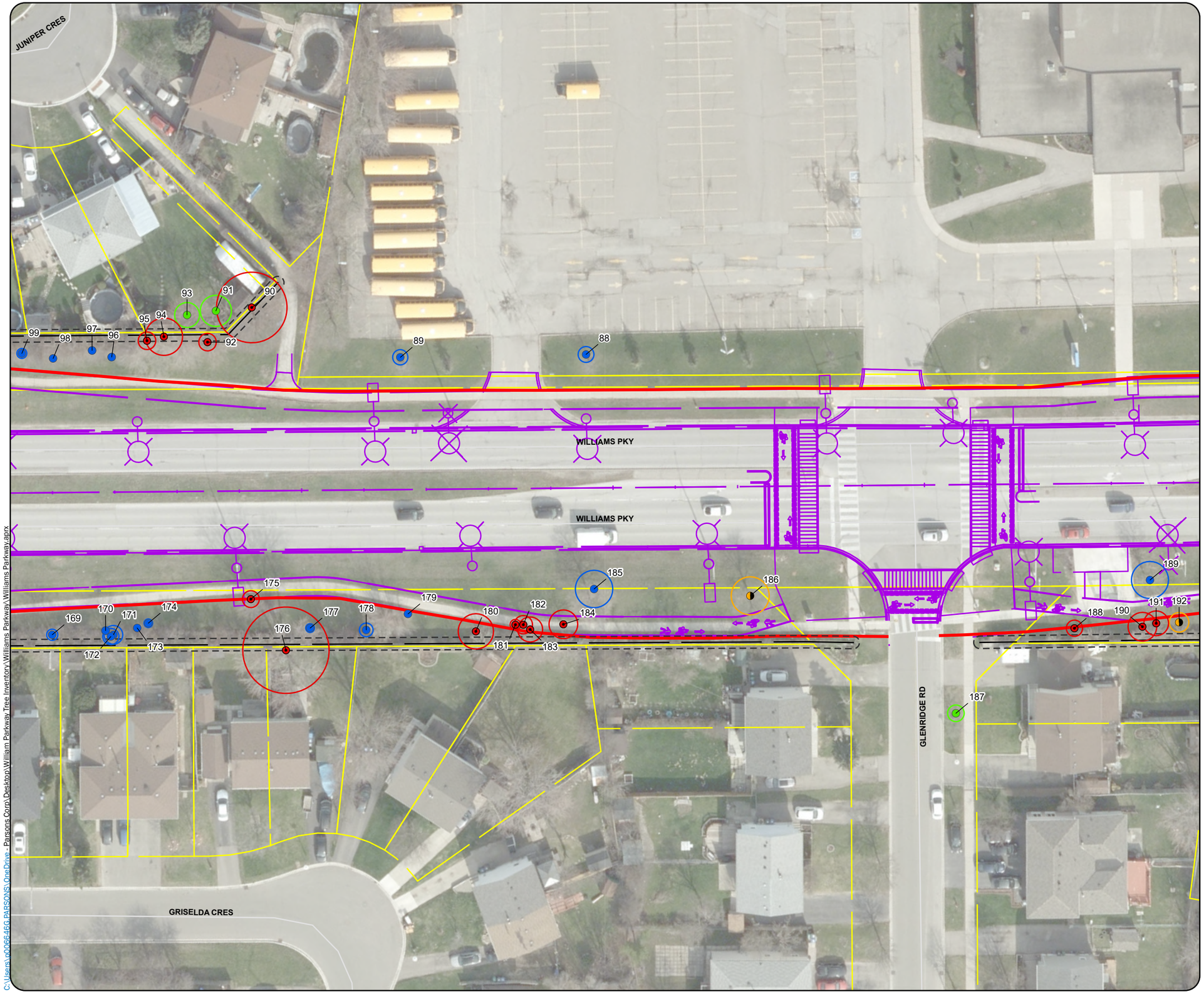

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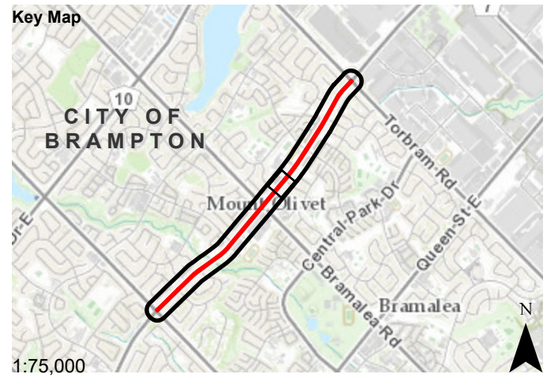

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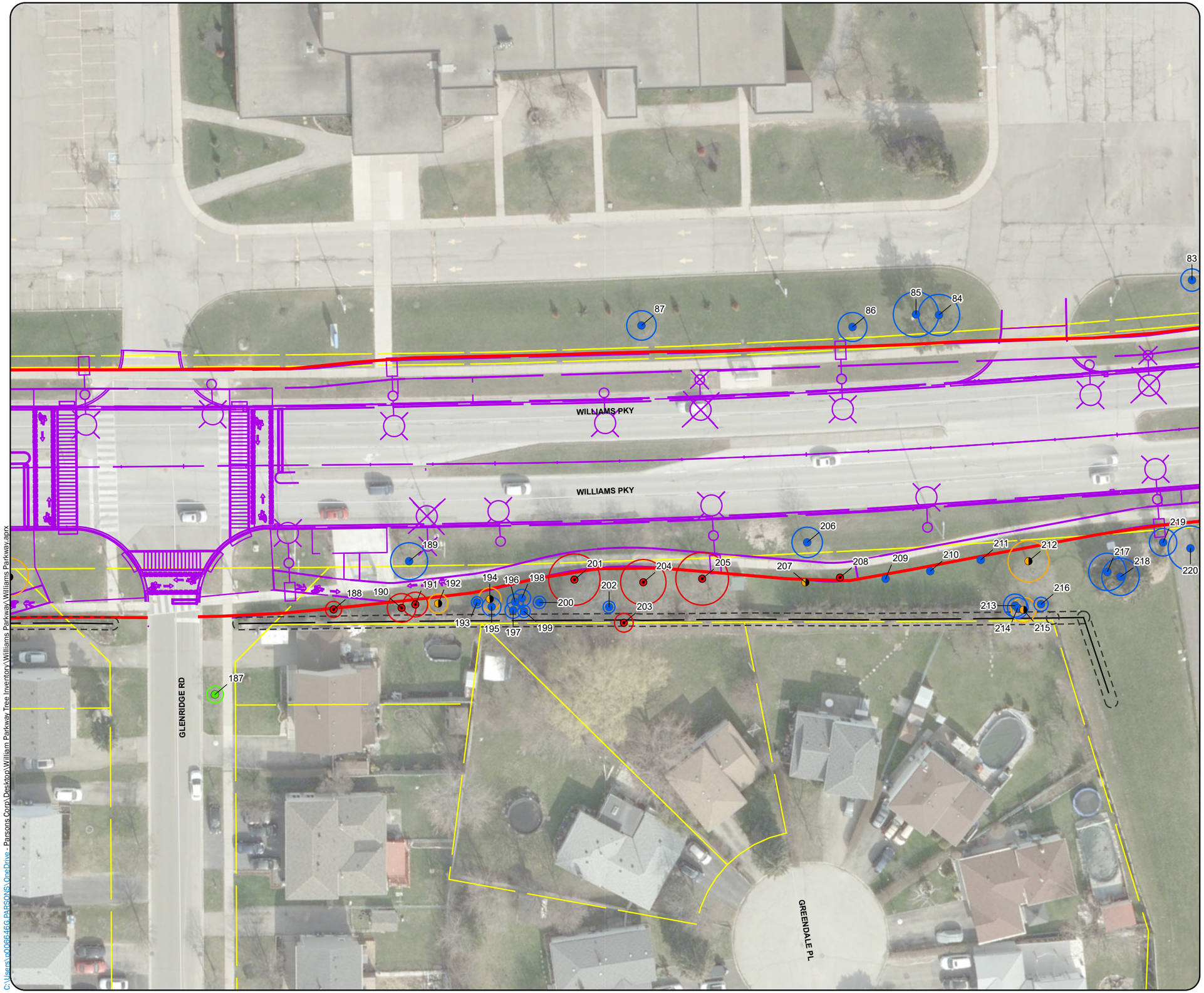

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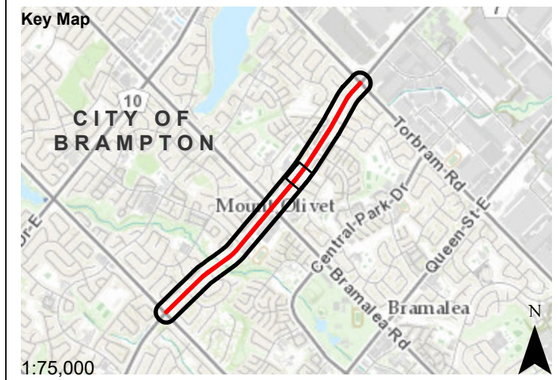
APPENDIX A
Figure 5 - Preliminary Tree Removal Assessment

Key Map



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Critical Root Zone (CRZ)

- Retain
- Injure
- Protect
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Tree Location

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- Protect
- Remove

1:600

0 5 10 20 30 Meters

DATA SOURCES: Parsons (2022); Toronto Region Conservation Authority (TRCA); Peel Region; City of Brampton; Land Information Ontario (LIO); ESRI

Natural Environment Assessment Report
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Municipal Class Environmental Assessment Study

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478286	11/26/2024	M.N.

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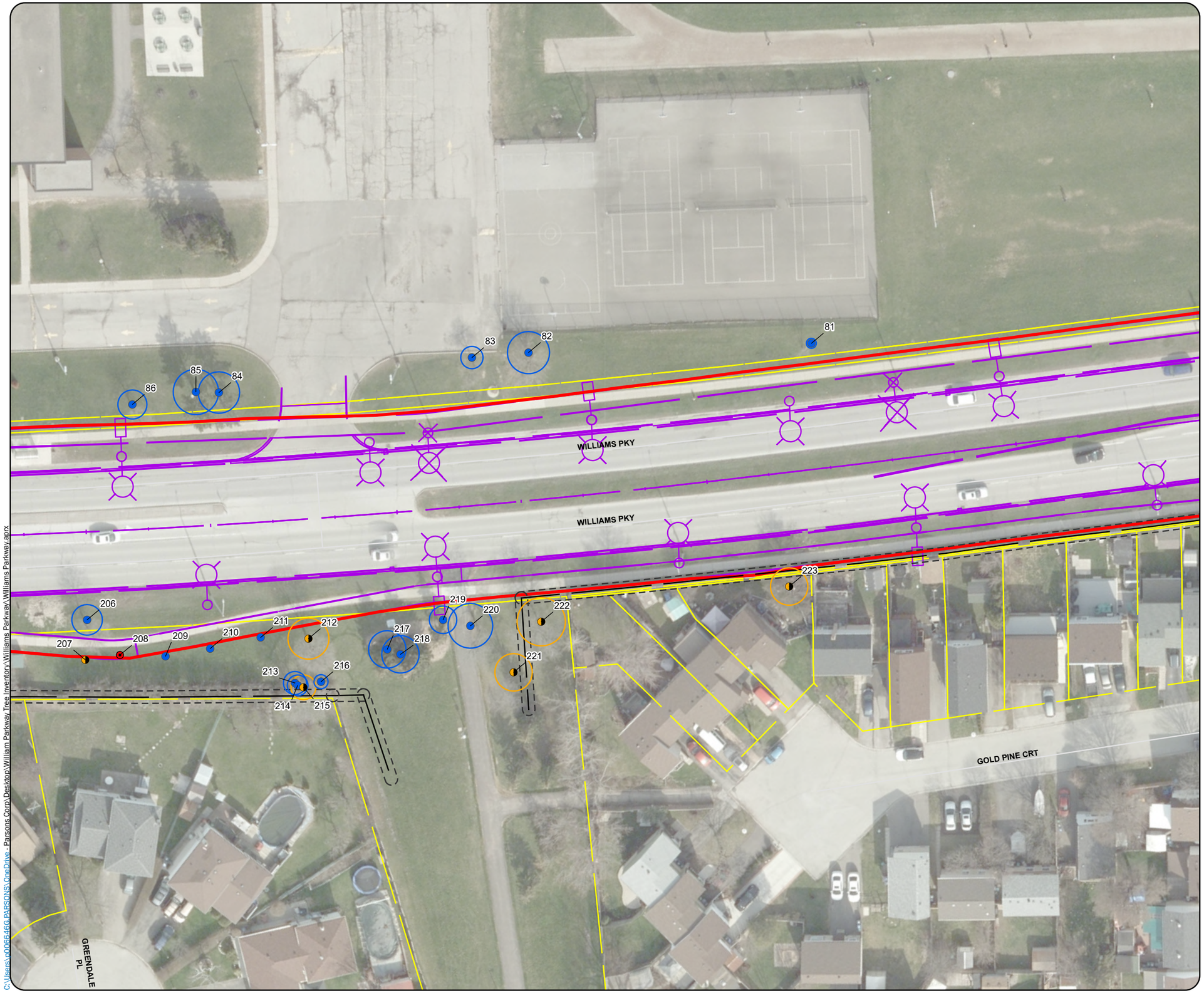

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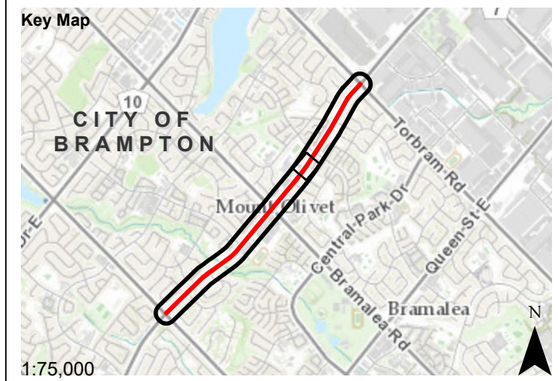

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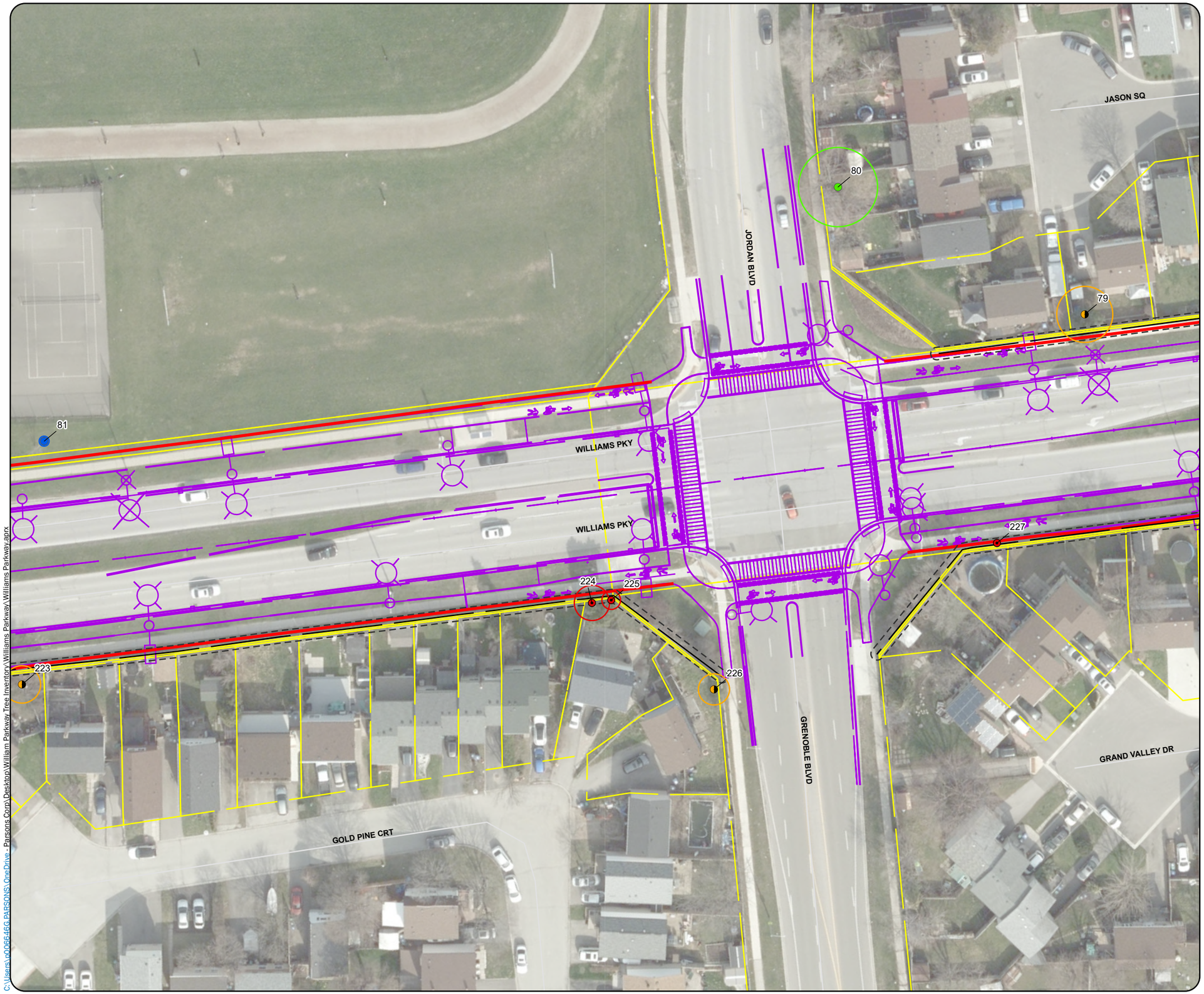

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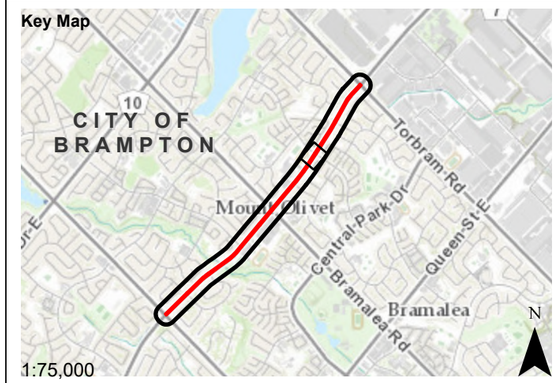

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APPENDIX A

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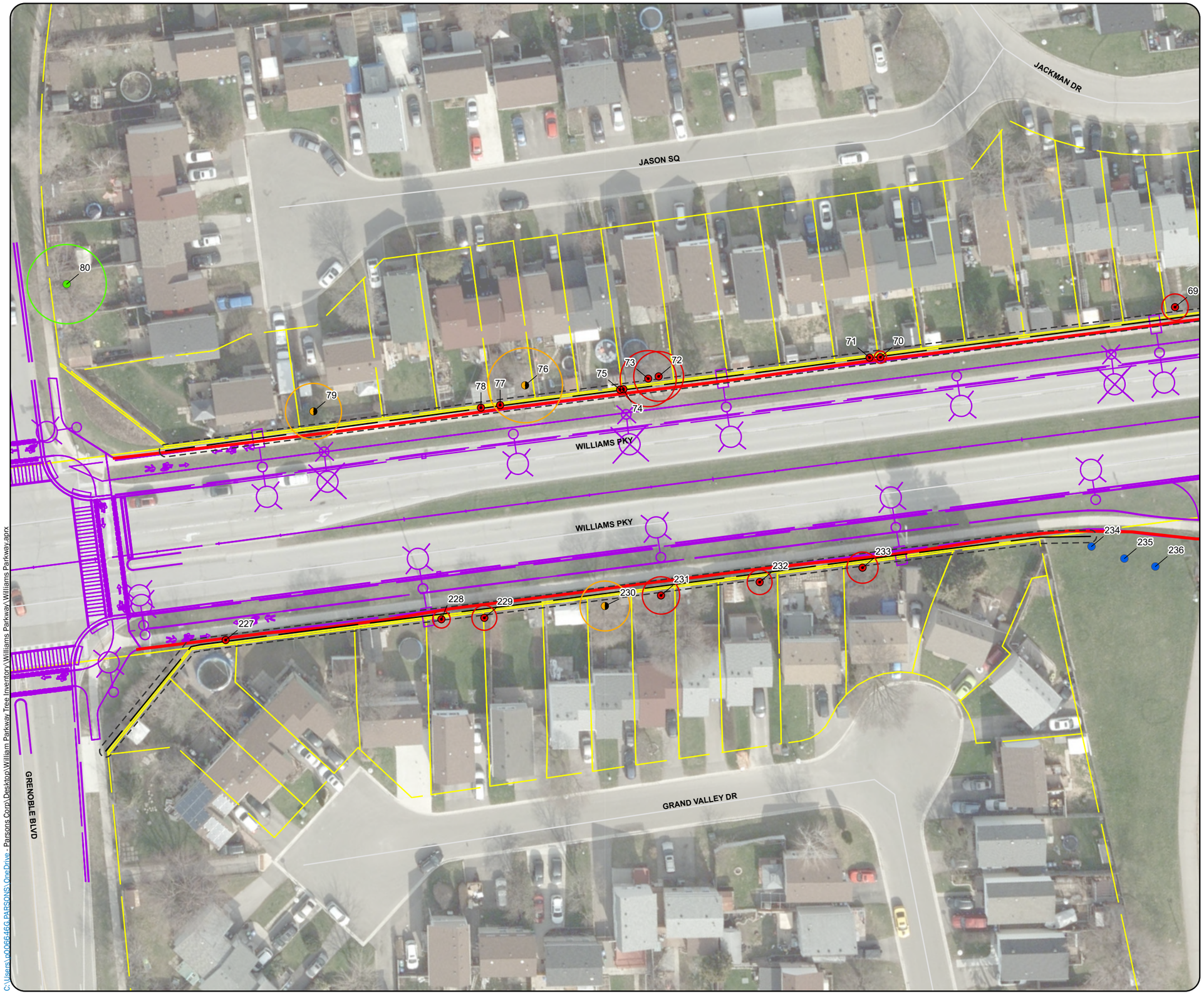

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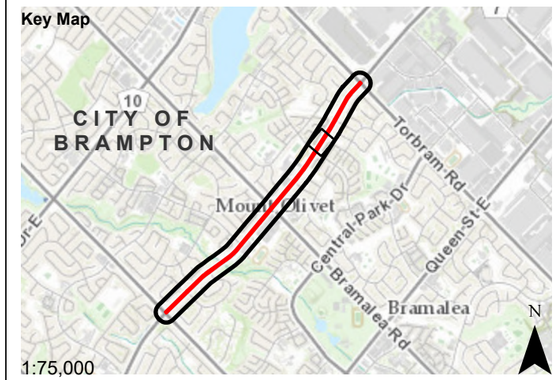

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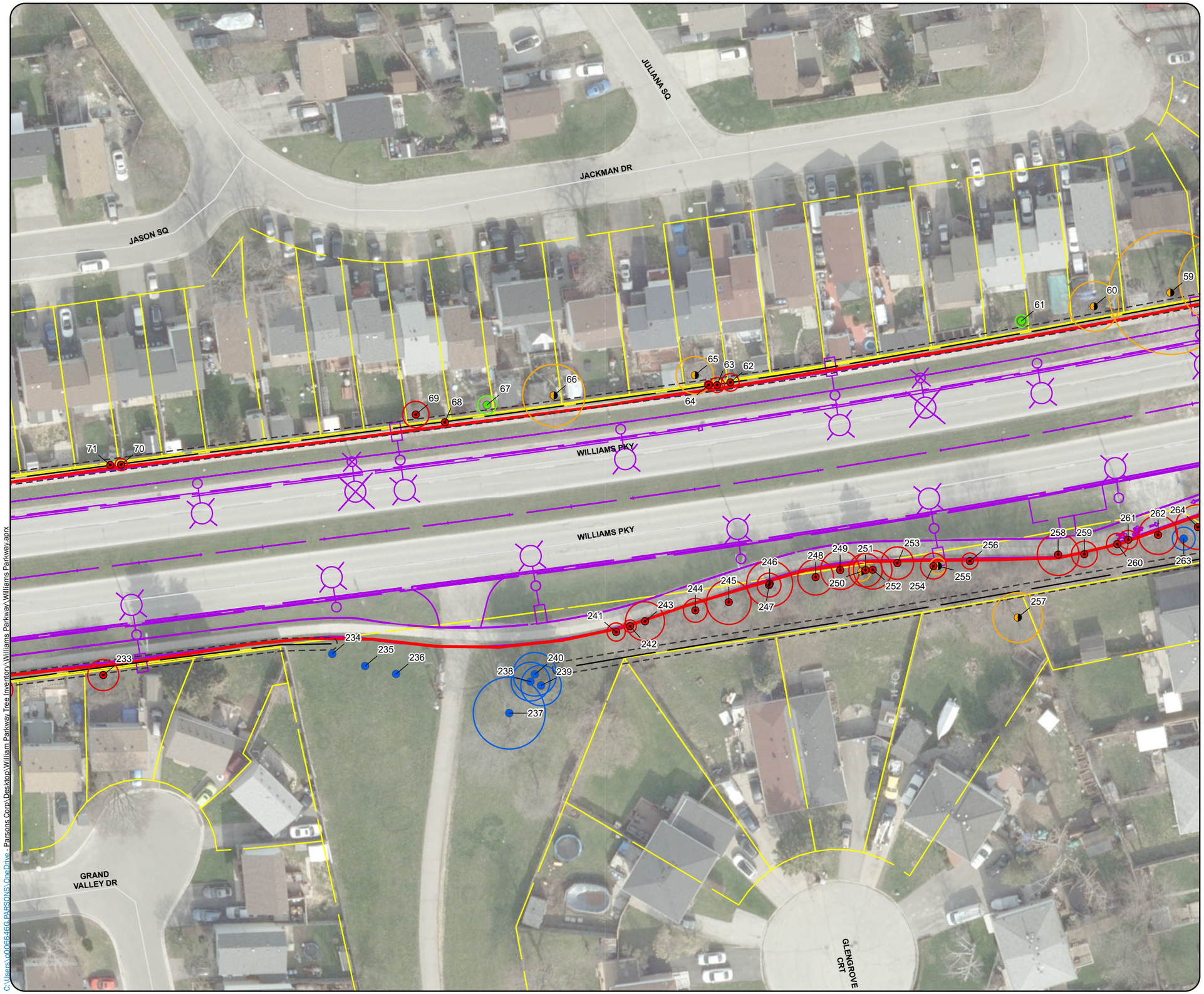

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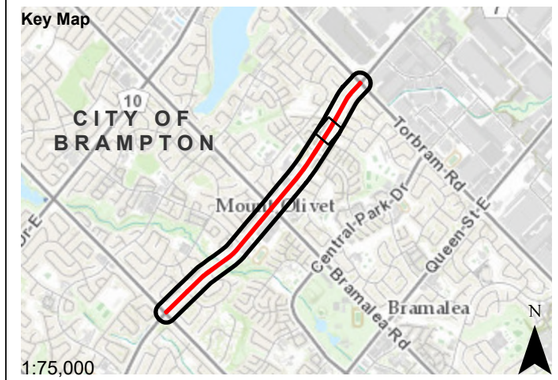

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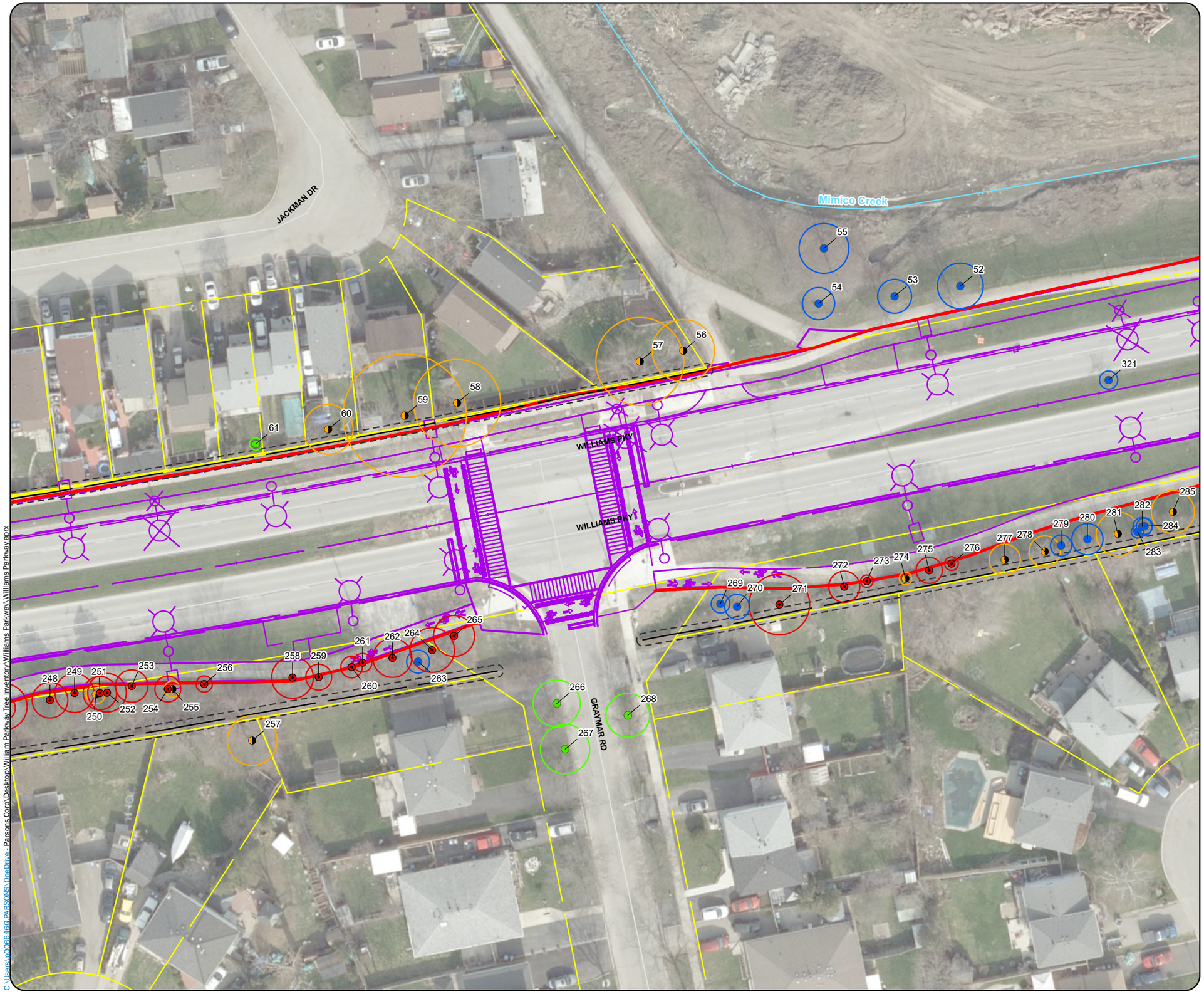

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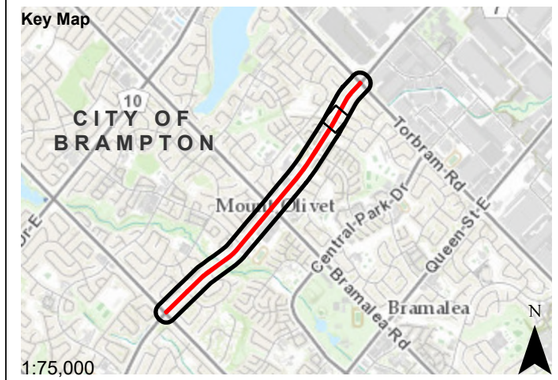

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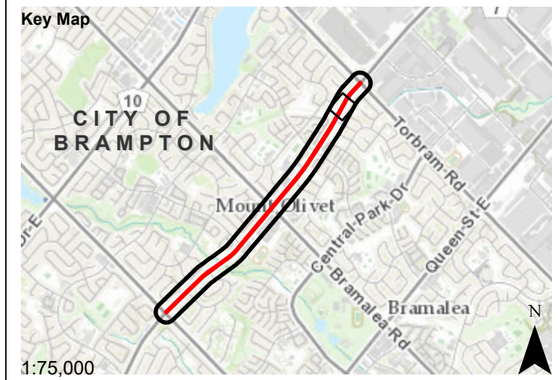

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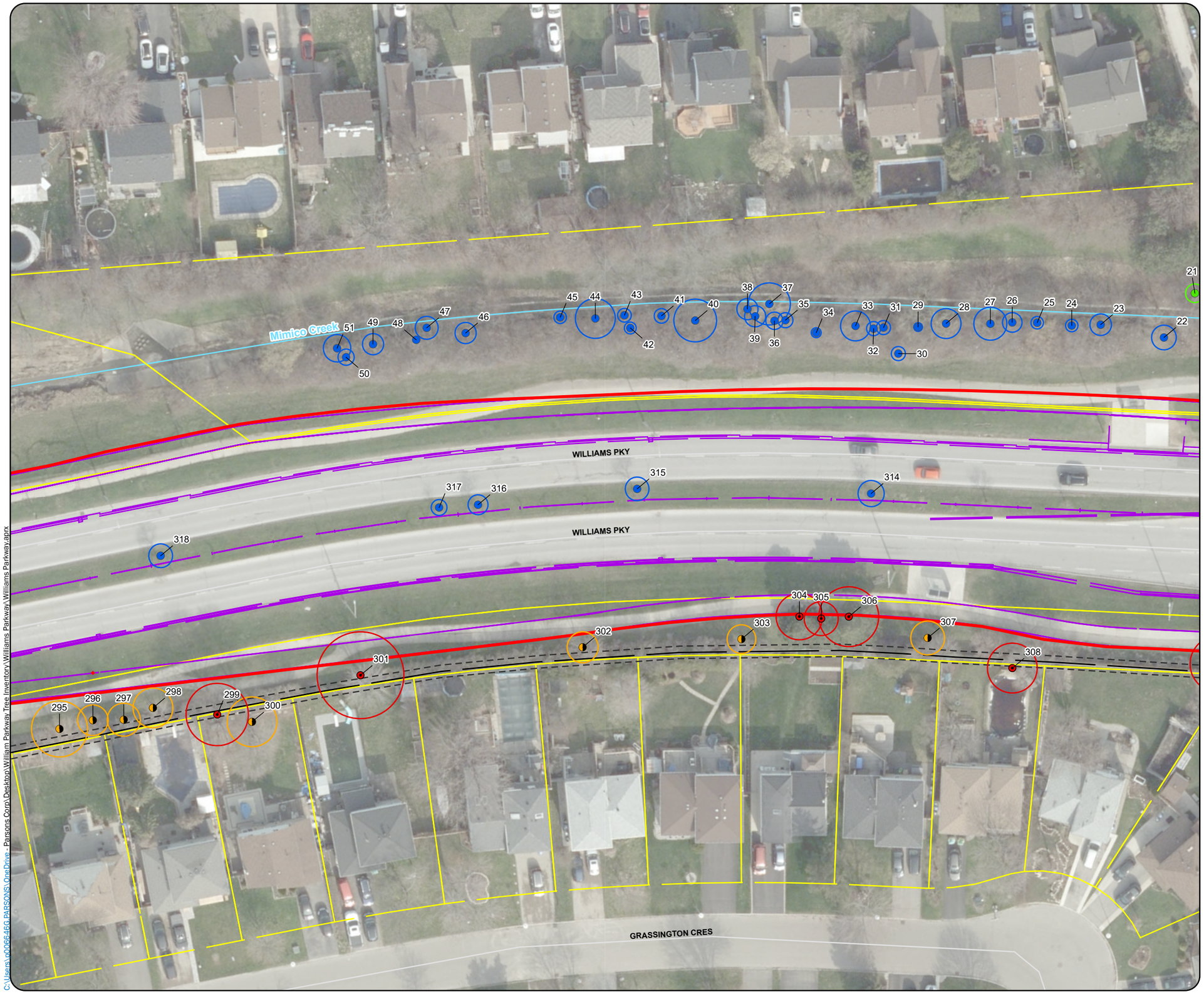

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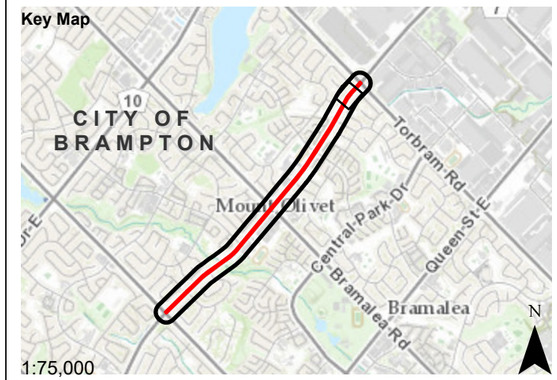

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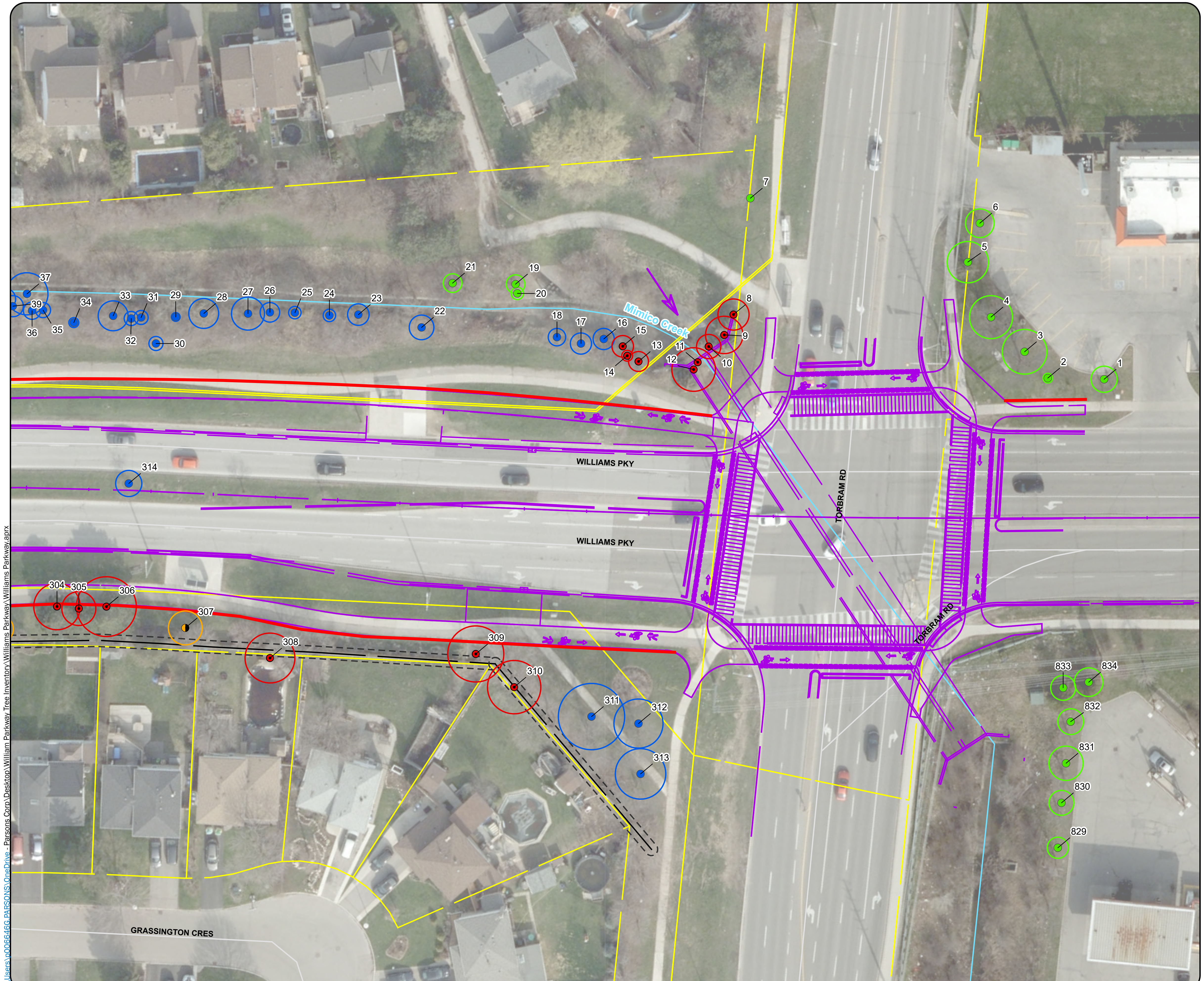

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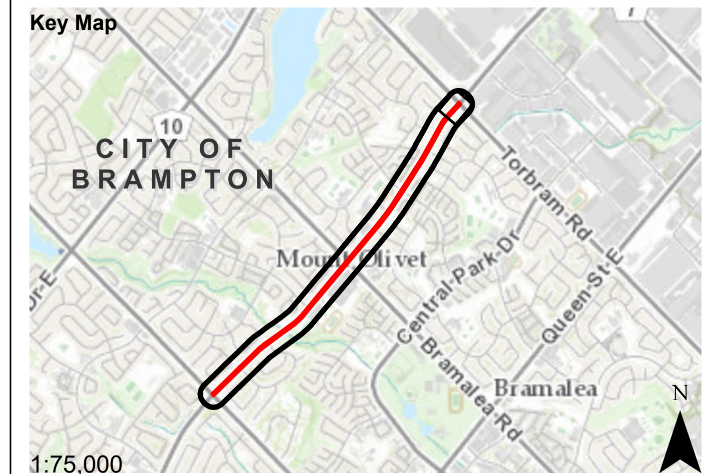

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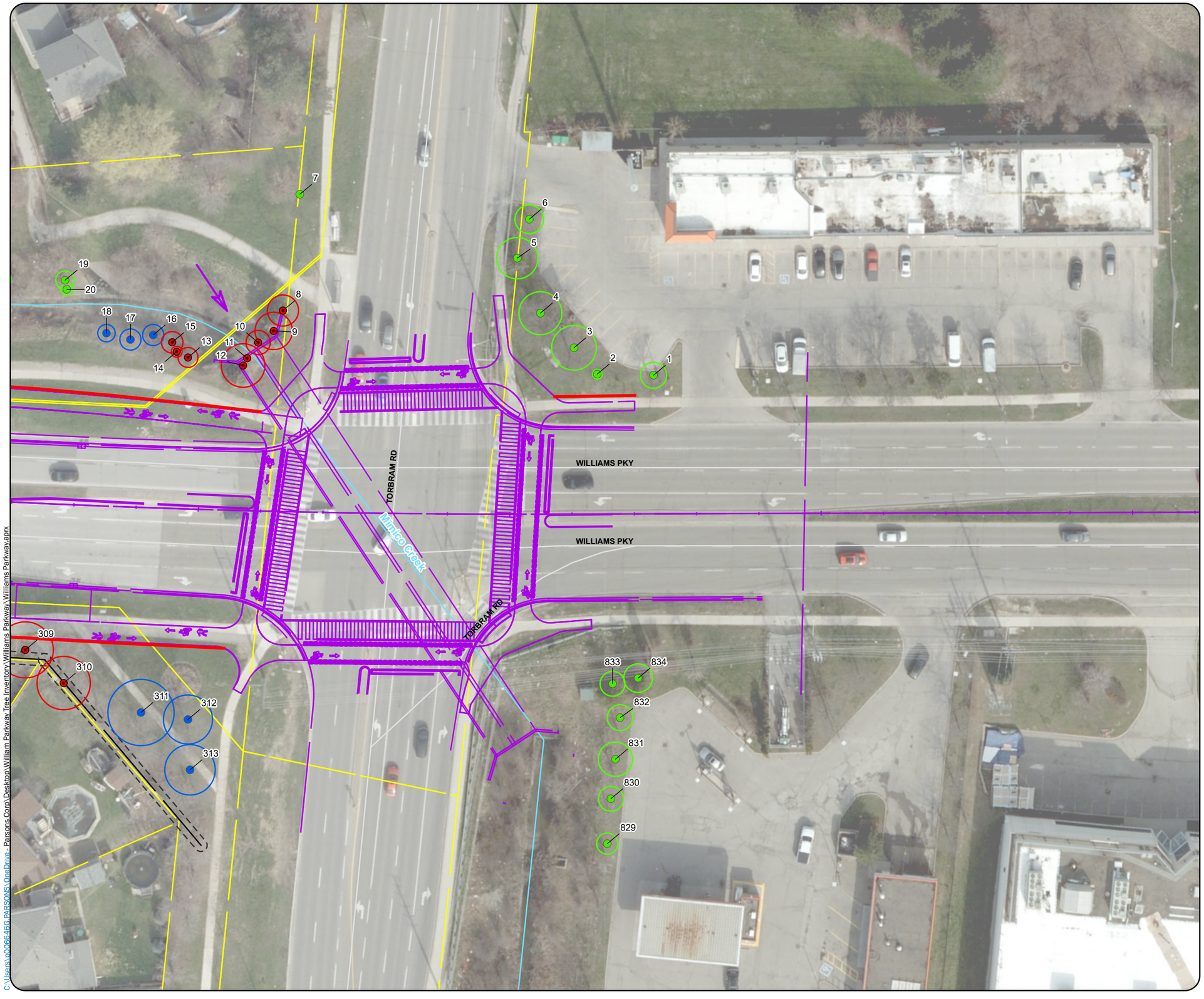

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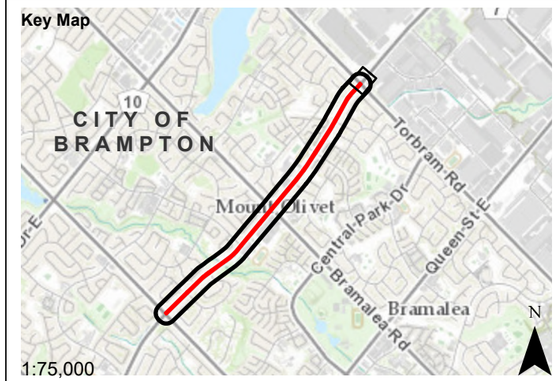

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APPENDIX B
(AGENCY CONSULTATION)

From: Palombo, Jessica [NN-CA]
To: Species at Risk (MECP)
Subject: City of Brampton - Williams Parkway Environmental Assessment Species at Risk Information Request
Date: Wednesday, July 6, 2022 10:52:00 AM
Attachments: SARlist_WilliamsPkwy_27-06-2022.pdf
image001.png
Attach A - Williams Parkway EA Map.pdf

Good Morning,

Parsons Inc. has been retained by the Corporation of the City of Brampton to undertake the Technical Studies for the improvements of Williams Parkway between Dixie Road and Torbram Road in the City of Brampton, Regional Municipality of Peel. Parsons is required to complete natural heritage assessments including identification of terrestrial sensitivities for the study area and fisheries investigations for watercourses within the study area to document existing conditions and complete an impact assessment for proposed works within the project area. See Attachment A for a map of the project area.

A list of Species at Risk (SAR) identified during the background review is summarized in the attached species list. SAR include species identified as Extirpated, Endangered, or Threatened and listed on the Species at Risk in Ontario list in Ontario Regulation 230/08 under the *Endangered Species Act, 2007* (ESA).

Parsons is reaching out to request background information and/or data that MECP may have related to the study area. Please review and confirm the information compiled from online data sources following guidance outlined within the Natural Heritage Information Request Guide including DFO Online SAR Mapping, LIO, NHIC, Ontario Breeding Bird Atlas, Ontario Butterfly Atlas, and iNaturalist to confirm/update the attached information and provide any additional SAR. Parsons is requesting any additional information pertaining to SAR and/or habitat, including species, locations, observation dates, and community information.

Thank you for your time and consideration of this request. Should you have questions or concerns, please do not hesitate to contact me.

Kind regards,

Jessica Palombo
Associate Aquatic Biologist
jessica.palombo@parsons.com
Mobile: +1 289-969-4792
Parsons / LinkedIn / Twitter / Facebook / Instagram

PARSONS

From:	Palombo, Jessica [NN-CA]
To:	scp.aurora@ontario.ca
Subject:	City of Brampton - Williams Parkway Environmental Assessment Natural Heritage Information Request
Date:	Thursday, July 7, 2022 10:30:00 AM
Attachments:	image001.png Attach B - Williams Parkway EA Fish Table.docx Williams Parkway - NDMNRF Letter and Project Map.pdf Williams_Parkway_LCFSP_Application_07-06-2022.pdf Williams_Parkway_VHS_Risk_Assessment__2022.pdf

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Good morning,

Parsons Inc. has been retained by the Corporation of the City of Brampton to undertake the Technical Studies for the improvements of Williams Parkway between Dixie Road and Torbram Road in the City of Brampton, Regional Municipality of Peel. Parsons is required to complete natural heritage assessments including identification of terrestrial sensitivities and fisheries investigations for watercourses within the study area. Please find attached a completed LCFSP application form, VHS questionnaire, and letter including a map of the study area.

We are requesting that MNRF review and confirm the information provided in the attached fisheries data request table (Attachment B). In addition we would like to request any additional information regarding terrestrial sensitivities for the project area. Please note, Parsons biologists have consulted available online data sources following guidance outlined within the Natural Heritage Information Request Guide including DFO Online SAR Mapping, LIO, NHIC, Ontario Breeding Bird Atlas, Ontario Butterfly Atlas and inaturalist.
We are requesting any additional available information MNRF can provide related to the features listed below.

- Significant Wildlife Habitat (SWH)
- Wetlands not available on LIO
- Species of Conservation Concern (SoCC) which may be present

Thank you in advance for your consideration of the request, should you have any questions or concerns please do not hesitate to contact me.

Regards,
Jessica

Jessica Palombo
Associate Aquatic Biologist
jessica.palombo@parsons.com
Mobile: +1 289-969-4792
Parsons / LinkedIn / Twitter / Facebook / Instagram

PARSONS

From: MacVeigh, Brydon [NN-CA]
To: scp.aurora@ontario.ca
Cc: Bobak, Eva (NDMNRF); Chan, Salina [NN-CA]; Palombo, Jessica [NN-CA]
Subject: RE: LCFSP No. 1101639 (AU2022-00341)
Date: Thursday, July 21, 2022 9:30:11 AM
Attachments: AU2022-00341 & conditions - MacVeigh_signed.pdf

Good morning,

Please find attached a signed copy of the LCFSP and conditions.

Thanks,
Brydon

From: Bobak, Eva (NDMNRF) <Eva.Bobak@ontario.ca>
Sent: Wednesday, July 20, 2022 6:19 PM
To: MacVeigh, Brydon [NN-CA] <Brydon.MacVeigh@parsons.com>
Subject: [EXTERNAL] LCFSP No. 1101639 (AU2022-00341)

Thank you for your recent Scientific Collector's Permit application submission. (A separate email will follow concering your request for additional information)

Attached is the permit and conditions. Please review and sign the attached, along with each page of the permit conditions, and return to scp.aurora@ontario.ca. Your signature acknowledges that you understand and agree to the terms and conditions of the permit.

Fish Scientific Collector's Licences are issued under section 34.1(1) of O. Reg. 664/98 [ontario.ca] of the *Fish and Wildlife Conservation Act, 1997* [ontario.ca].

The attached is not valid unless it is signed by the holder and issuer in the spaces provided for the signatures (*Fish and Wildlife Conservation Act, 1997, O. Reg 664/98, section 36*). You and your assistants must carry a copy of the permit with you while acting under the authority of the permit.

Approved permits are only valid for the locations and species if all appropriate approvals under all required agencies have been obtained.

Please be aware that other applicable legislation may be required.

Please note the reporting requirements specific to your permit. Attached is a mandatory fish collection record form.

The permit holder(s) should follow all of the following relevant best management practices:

- Minimize the risk of spreading invasive species and diseases: Viral hemorrhagic septicemia (VHS) | ontario.ca [ontario.ca]
  Species at risk guides and resources | ontario.ca

[ontario.ca]

Thank you,

Eva Bobak
Integrated Resource Management Technical Specialist
Ministry of Natural Resources and Forestry
Aurora District Office
50 Bloomington Road, Aurora, ON L4G 0L8 / Tel: 289-380-7337 /
eva.bobak@ontario.ca

Please consider the environment before printing this e-mail.

As part of providing accessible customer service [ontario.ca], please let us know if you have any accommodation needs or require communication supports or alternate formats.

APPENDIX C
(BACKGROUND REVIEW)

Background Review

Species		SAR Status		Conservation Rank and Rarity Status						
Common Name	Scientific Name	National (SARA)	Provincial (ESA, 2007)	National (COSEWIC)	Global (G-rank)	Provincial (S-rank)	Conservation Priorities[1]	Regional Rarity Rank[2]	Local Rarity Rank[3]	Sources
AMPHIBIANS										
American Toad	*Bufo americanus*				G5	S5			L4	ORAA
Eastern Red-backed Salamander	*Plethodon cinereus*				G5	S5			L3	ORAA
Gray Treefrog	*Hyla versicolor*				G5	S5			L2	ORAA
Green Frog	*Rana clamitans*				G5	S5			L4	ORAA
Northern Leopard Frog	*Rana pipiens*				G5	S5			L3	ORAA
Spotted Salamander	*Ambystoma maculatum*				G5	S4			L1	ORAA
Spring Peeper	*Pseudacris crucifer*				G5	S5			L2	ORAA
Western Chorus Frog (Great Lakes/St. Lawrence - Canadian Shield population)	*Pseudacris triseriata pop. 1*	THR, Schedule 1	NAR	THR	G5TNRQ	S4			L2	ORAA
Wood Frog	*Rana sylvatica*				G5	S5			L2	ORAA
REPTILES										
Eastern Gartersnake	*Thamnophis sirtalis*				G5T5	S5			L4	ORAA
Midland Painted Turtle	*Chrysemys picta marginata*	NAR	SC	SC	G5T5	S4			L3	ORAA
Northern Map Turtle	*Graptemys geographica*	SC	SC	SC	G5	S3			L2	ORAA; NHIC
Red-bellied Snake	*Storeria occipitomaculata*				G5	S5			L3	ORAA
Red-eared Slider	*Trachemys scripta elegans*				G5T5	SX			L+	ORAA
Snapping Turtle	Chelydra serpentina	SC	SC	SC	G5	S3			L3	ORAA
MAMMALS										
Eastern Small-footed Myotis	*Myotis leibii*	NAR	END	NAR	G4	S2S3				
Little Brown Myotis	*Myotis lucifugus*	END, Schedule 1	END	END	G3	S4			L4	
Northern Myotis	*Myotis septentrionalis*	END, Schedule 1	END	END	G1G2	S3				
Tricolored Bat	*Perimyotis subflavus*	END, Schedule 1	END	END	G2G3	S3?				
Hoary Bat	*Lasiurus cinereus*	Pending Uplisting	Pending Uplisting	END	G3	S4				COSEWIC, COSSARO
Eastern Red Bat	*Lasiurus borealis*	Pending Uplisting	Pending Uplisting	END	G3	S4				COSEWIC, COSSARO
Silver-haired Bat	*Lasionycteris noctivagans*	Pending Uplisting	Pending Uplisting	END	G3	S4				COSEWIC, COSSARO
BIRDS										
American Black Duck	*Anas rubripes*				G5	S4	Maintain Current		L3	eBird
American Woodcock	*Scolopax minor*				G5	S4B	Increase		L3	OBBA
Bank Swallow	*Riparia riparia*	THR, Schedule 1	THR	THR	G5	S4B	Increase		L3	OBBA
Barn Swallow	*Hirundo rustica*	THR, Schedule 1	SC	THR	G5	S4B	Recovery Objective		L4	OBBA
Belted Kingfisher	*Megaceryle alcyon*				G5	S5B, S4N	Increase		L4	OBBA
Black-billed Cuckoo	*Coccyzus erythropthalmus*				G5	S4S5B	Increase		L3	OBBA
Blue-headed Vireo	*Vireo solitarius*				G5	S5B			L3	OBBA
Bobolink	*Dolichonyx oryzivorus*	THR, Schedule 1	THR	SC	G5	S4B	Recovery Objective		L2	OBBA
Brown Creeper	*Certhia americana*				G5	S5			L3	OBBA
Brown Thrasher	*Toxostoma rufum*				G5	S4B	Increase		L3	OBBA
Chestnut-sided Warbler	*Setophaga pensylvanica*				G5	S5B			L3	OBBA
Chimney Swift	*Chaetura pelagica*	THR, Schedule 1	THR	THR	G4G5	S4B, S4N	Recovery Objective		L4	OBBA
Clay-colored Sparrow	*Spizella pallida*				G5	S4B			L3	OBBA
Common Nighthawk	*Chordeiles minor*	SC	SC	SC	G5	S4B	Recovery Objective		L3	OBBA
Eastern Kingbird	*Tyrannus tyrannus*				G5	S4B	Increase		L4	OBBA
Eastern Meadowlark	*Sturnella magna*	THR, Schedule 1	THR	THR	G5	S4B	Recovery Objective		L3	OBBA
Eastern Screech-Owl	*Megascops asio*				G5	S4			L3	OBBA
Eastern Towhee	*Pipilo erythrophthalmus*				G5	S4B, S3N	Increase		L3	OBBA
Eastern Wood-Pewee	*Contopus virens*	SC	SC	SC	G5	S4B	Increase		L4	OBBA; NHIC; NAI
Field Sparrow	*Spizella pusilla*				G5	S4B, S3N			L3	OBBA
Golden-crowned Kinglet	*Regulus satrapa*				G5	S5			L3	OBBA; eBird
Grasshopper Sparrow	*Ammodramus savannarum*	SC	SC	SC	G5	S4B	Increase		L2	OBBA
Great Blue Heron	*Ardea herodias*				G5	S4	Maintain Current		L3	OBBA; eBird
Green Heron	*Butorides virescens*				G5	S4B	Increase		L4	OBBA
Hooded Merganser	*Lophodytes cucullatus*				G5	S5			L3	OBBA
Hooded Warbler	*Setophaga citrina*				G5	S4B			L2	OBBA
Horned Lark	*Eremophila alpestris*				G5	S4			L3	OBBA
Killdeer	*Charadrius vociferus*				G5	S4B	Increase		L4	OBBA
Long-eared Owl	*Asio otus*				G5	S4			L3	OBBA
Mourning Warbler	*Geothlypis philadelphia*				G5	S5B			L3	OBBA
Nashville Warbler	*Leiothlypis ruficapilla*				G5	S5B			L3	OBBA

Species		SAR Status		Conservation Rank and Rarity Status						
Common Name	Scientific Name	National (SARA)	Provincial (ESA, 2007)	National (COSEWIC)	Global (G-rank)	Provincial (S-rank)	Conservation Priorities[1]	Regional Rarity Rank[2]	Local Rarity Rank[3]	Sources
Northern Flicker	*Colaptes auratus*				G5	S5	Increase		L4	OBBA
Northern Harrier	*Circus hudsonius*				G5	S5B, S4N	Maintain Current		L2	OBBA
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*				G5	S4B	Increase		L4	OBBA
Ovenbird	*Seiurus aurocapilla*				G5	S5B			L2	OBBA
Pileated Woodpecker	*Dryocopus pileatus*				G5	S5			L3	OBBA
Purple Martin	*Progne subis*				G5	S3B	Increase		L4	OBBA
Ruffed Grouse	*Bonasa umbellus*				G5	S5			L2	OBBA
Savannah Sparrow	*Passerculus sandwichensis*				G5	S5B, S3N	Increase		L4	OBBA; NAI
Scarlet Tanager	*Piranga olivacea*				G5	S5B			L3	OBBA
Sedge Wren	*Cistothorus stellaris*				G5	S4B			L3	OBBA
Sharp-shinned Hawk	*Accipiter striatus*				G5	S5			L3	OBBA
Sora	*Porzana carolina*				G5	S5B	Assess/Maintain		L3	OBBA
Spotted Sandpiper	*Actitis macularius*				G5	S5B	Increase		L4	OBBA
Veery	*Catharus fuscescens*				G5	S5B			L2	OBBA
Vesper Sparrow	*Pooecetes gramineus*				G5	S4B	Increase		L3	OBBA
White-throated Sparrow	*Zonotrichia albicollis*				G5	S5			L3	OBBA
Wild Turkey	*Meleagris gallopavo*				G5	S5			L3	OBBA
Wilson's Snipe	*Gallinago delicata*				G5	S5B	Assess/Maintain		L2	OBBA
Winter Wren	*Troglodytes hiemalis*				G5	S5B, S4N			L3	OBBA
Wood Duck	*Aix sponsa*				G5	S5B, S3N	Increase		L4	OBBA
Wood Thrush	*Hylocichla mustelina*	THR, Schedule 1	SC	THR	G4	S4B	Maintain Current		L3	OBBA
Yellow-bellied Sapsucker	*Sphyrapicus varius*				G5	S5B, S3N			L3	OBBA
Yellow-billed Cuckoo	*Coccyzus americanus*				G4	S4B			L2	OBBA
INVERTEBRATES										
Monarch	*Danaus plexippus*	END, Schedule 1	SC	END	G4	S2N, S4B				OBA
FISH										
Redside Dace	*Clinostomus elongatus*	END, Schedule 1	END	END	G3G4	S2				NHIC
VASCULAR PLANTS										
Black Ash	*Fraxinus nigra*	NAR	END	THR	G5	S3		C	L4	NHIC

Definitions, Acronyms and Symbols

Species of Conservation Concern (SoCC)

Species at Risk (SAR)

ORAA and OBBA 10km^2 Map Squares: 17NJ93; 17PJ03

NHIC 1km^2 Map Squares: 17NJ9937; 17NJ9938; 17PJ0037 & 17PJ0038

Global G-rank

G1: Critically Imperiled (at very high risk of extinction)

G2: Imperiled (at high risk of extinction)

G3: Vulnerable (at moderate risk of extinction)

G4: Apparently Secure (Uncommon but not rare)

G5: Secure (common, widespread and abundant)

G#G#: Range Rank (range of uncertainty about the status of a taxon or ecosystem type)

GU: Unrankable (currently unrankable due to lack of information)

GNR: Unranked (global rank not yet assessed)

GNA: Not Applicable (species is not a suitable target for conservation activities)

T: Denotes that the rank applies to a subspecies or variety

B: Breeding

N: Non-breeding

Provincial S-rank

S1: Critically Imperiled (i.e. fewer than 5 occurrences in the nation and/or province)

S2: Imperiled (i.e. fewer than 20 occurrences in the nation and/or province)

S3: Vulnerable (i.e. 20-80 occurrences in the nation and/or province)

S4: Apparently Secure (uncommon, but not rare in the nation and/or province)

S5: Secure (common, widespread and abundant in the nation and/or province)

SNA: Not Applicable (species is not a suitable target for conservation activities)

SHB: Breeding is not confirmed in Ontario

S#S#: Range Rank (range of uncertainty about the status of the species or community)

S#?: Rank is Uncertain

S?: Not Ranked Yet

B: Breeding migrants/vagrants

N: Non-breeding migrants/vagrants

COSEWIC: Committee on the Status of Endangered Wildlife in Canada

ESA: Endangered Species Act

SARA: Species at Risk Act

SARO: Species at Risk in Ontario

Regional Rarity (Carolinian Canada)[2]

C: Common

U: Uncommon

R: Rare

X: No Status

SARA or ESA designagtion

EXT - Extinct

END - Endangered

END* Endangered (Not protected until 2024)

THR - Threatened

SC - Special Concern

NAR - Not at Risk

Local Rarity (TRCA)[3]

L1: Species of Regional Conservation Concern (regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts)

L2: Species of Regional Conservation Concern (somewhat more abundant and generally slightly less sensitive than L1 species)

L3: Species of Regional Conservation Concern (generally less sensitive and more abundant than L1 and L2 ranked species)

L4: Species of Urban Concern (occur throughout the region but could show declines if urban impacts are not mitiagted effectively)

L5: Species that are considered secure throughout the region

L+: Introduced species (not native to the Toronto region)

LX: Extirpated species (species not recorded in the region in the past 10 years)

LS: Sporadic breeder (species not recorded in the region in the past 10 years)

L+?: Species is probably introduced

Conservation Priorities[1]

Recovery Objective - Species at Risk

Increase - Population in decline

Maintain Current - Appears to be stable or increasing

Assess/ Maintain - Monitoring data was insufficient to propose an objective

References / Sources

1 - Bird Conservation Strategy for Bird Conservation Region (BCR) 13 in Ontario Region: Lower Great Lakes/St. Lawrence Plain (Environment Canada 2014)

2 - List of the Vascular Plants of Ontario's Carolinian Zone (Ecoregion 7E) (Oldham, 2017).

3 - Flora Species for the TRCA Jurisdiction (TRCA, 2019) & Fauna Ranks and Scores for the TRCA Jurisdiction (TRCA, 2019).

4 - NHIC - Natural Heritage Information Centre (NHIC) Make-a-map Tool (Ministry of Natural Resources and Forestry, 2024)

5- iNaturalist website available online at https://www.inaturalist.org/ (all projects searched, including NHIC Rare Species of Ontario and Herps of Ontario Projects).

6 - eBird website available online at https://ebird.org/map/

7- ORAA - Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019)

8 - OBBA - Ontario Breeding Bird Atlas (Bird Studies Canada, 2024)

9- AMO - Atlas of the Mammals of Ontario (Dobbyn, 1994)

10 - OBA - Ontario Butterfly Atlas (Macnaughton et al., 2019)

11 - NAI - Dixie Williams North and Dixie– North Park South Natural Area Inventories (Region of Peel)

APPENDIX D
(TREE INVENTORY AND ASSESSMENT)

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
1	Honey locust	*Gleditsia triacanthos*	1	1	21	2.1	Good	Good	Good	Good	Retain		Private	43.74458885	-79.72009408
2	Serviceberry species	*Amelanchier sp*	1	1	7.7	0.8	Fair	Poor	Good	Good	Retain		Private	43.74452788	-79.72016829
3	Honey locust	*Gleditsia triacanthos*	1	1	35.9	3.6	Good	Good	Good	Fair	Retain		Private	43.74452686	-79.72023838
4	Honey locust	*Gleditsia triacanthos*	1	1	34.5	3.5	Fair	Fair	Good	Good	Retain		Private	43.74452218	-79.72033432
5	White spruce	*Picea glauca*	1	1	33.2	3.3	Fair	Good	Good	Poor	Retain		Private	43.74454803	-79.72044782
6	Honey locust	*Gleditsia triacanthos*	1	1	23	2.3	Fair	Poor	Good	Good	Retain		Private	43.74459766	-79.72049148
7	Manitoba maple	*Acer negundo*	1	1	5	0.5	Good	Good	Good	Good	Retain		City of Brampton	43.74436804	-79.72082541
8	Blue spruce	*Picea pungens*	1	1	25	2.5	Good	Good	Good	Good	Remove	Culvert Wing Wall	City of Brampton	43.74424078	-79.72067019
9	Blue spruce	*Picea pungens*	1	1	30	3.0	Good	Good	Good	Good	Remove	Culvert Wing Wall	City of Brampton	43.74421149	-79.72065112
10	Manitoba maple	*Acer negundo*	1	1	19.5	2.0	Good	Good	Good	Good	Remove	Culvert Wing Wall	City of Brampton	43.74418349	-79.72065351
11	Manitoba maple	*Acer negundo*	1	7	1	0.3	Good	Good	Good	Good	Remove	Culvert Wing Wall	City of Brampton	43.74415669	-79.72064383
12	Blue spruce	*Picea pungens*	1	1	35	3.5	Good	Good	Good	Fair	Remove	Culvert Wing Wall	City of Brampton	43.74414545	-79.72063798
13	European buckthorn	*Rhamnus cathartica*	1	4	8	1.6	Good	Good	Good	Good	Remove	Culvert Wing Wall	City of Brampton	43.74409218	-79.72072124
14	European buckthorn	*Rhamnus cathartica*	1	3	5	0.9	Good	Good	Good	Good	Remove	Culvert Wing Wall	City of Brampton	43.74408509	-79.72074452
15	Crabapple species	*Malus sp*	1	3	10	1.7	Good	Good	Good	Good	Remove	Culvert Wing Wall	City of Brampton	43.74408898	-79.72076468
16	Amur maple	*Acer ginnala*	1	2	12	1.7	Good	Good	Good	Fair	Protect	Curb	City of Brampton	43.74407482	-79.72080031
17	Amur maple	*Acer ginnala*	1	2	12	1.7	Good	Good	Good	Good	Protect	Curb	City of Brampton	43.74404547	-79.72082273
18	Amur maple	*Acer ginnala*	1	4	7	1.4	Good	Good	Good	Good	Protect	Curb	City of Brampton	43.74402503	-79.72086338
19	Manitoba maple	*Acer negundo*	1	1	15	1.5	Good	Good	Good	Good	Retain		City of Brampton	43.7440289	-79.72099725
20	Crabapple species	*Malus sp*	1	1	10	1.0	Good	Good	Good	Good	Retain		City of Brampton	43.7440222	-79.72098102
21	Willow species	*Salix sp*	1	1	15	1.5	Good	Good	Good	Good	Retain		City of Brampton	43.7439604	-79.72108009
22	Amur maple	*Acer ginnala*	1	8	7	2.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74388485	-79.7210527
23	Amur maple	*Acer ginnala*	1	3	10	1.7	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74382711	-79.72115369
24	Amur maple	*Acer ginnala*	1	1	10	1.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74379443	-79.7211897
25	Willow species	*Salix sp*	1	1	10	1.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74375894	-79.72123851
26	Amur maple	*Acer ginnala*	1	5	7	1.6	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74373174	-79.72127113
27	Amur maple	*Acer ginnala*	1	7	10	2.7	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74370639	-79.72129742
28	Amur maple	*Acer ginnala*	1	4	12	2.4	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74365769	-79.72135471
29	Willow species	*Salix sp*	1	1	7	0.7	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.7436236	-79.72138543
30	White ash	*Fraxinus americana*	1	2	8	1.1	Poor	Poor	Fair	Poor	Protect	MUP	City of Brampton	43.74357701	-79.72137058
31	Amur maple	*Acer ginnala*	1	2	8	1.1	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74358494	-79.7214293
32	Amur maple	*Acer ginnala*	1	2	8	1.1	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74357308	-79.7214405
33	Amur maple	*Acer ginnala*	1	4	12	2.4	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74355564	-79.72146785
34	Amur maple	*Acer ginnala*	1	1	8	0.8	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74350597	-79.72150822
35	Amur maple	*Acer ginnala*	1	3	7	1.2	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74348369	-79.72156693
36	Amur maple	*Acer ginnala*	1	3	8	1.4	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74347106	-79.7215802
37	Willow species	*Salix sp*	1	1	33.8	3.4	Good	Fair	Good	Good	Protect	MUP	City of Brampton	43.74348119	-79.72161246
38	Amur maple	*Acer ginnala*	1	2	12	1.7	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.7434522	-79.72163277
39	Amur maple	*Acer ginnala*	1	2	12	1.7	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.743454	-79.72161192
40	Amur maple	*Acer ginnala*	1	6	14	3.4	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74338397	-79.72168277
41	European buckthorn	*Rhamnus cathartica*	1	1	11.7	1.2	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74335106	-79.72173328
42	Amur maple	*Acer ginnala*	1	1	9.5	1.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74330536	-79.72175505
43	Amur maple	*Acer ginnala*	1	1	11	1.1	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.7433108	-79.72178197
44	Amur maple	*Acer ginnala*	1	5	14.3	3.2	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74327575	-79.72181463
45	Amur maple	*Acer ginnala*	1	1	10	1.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74323803	-79.72186171
46	Amur maple	*Acer ginnala*	1	2	12	1.7	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74311906	-79.72195967
47	Amur maple	*Acer ginnala*	1	2	13	1.8	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74308104	-79.72201776
48	Eastern red cedar	*Juniperus virginiana*	1	1	5	0.5	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74305834	-79.72201305
49	Amur maple	*Acer ginnala*	1	2	12	1.7	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74300659	-79.72206205
50	Amur maple	*Acer ginnala*	1	1	13	1.3	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74296472	-79.722077
51	Amur maple	*Acer ginnala*	1	4	11	2.2	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.74296311	-79.72210223
52	Norway maple	*Acer platanoides*	1	1	36.7	3.7	Fair	Good	Good	Poor	Protect	MUP	City of Brampton Park	43.74179343	-79.72289362
53	Norway maple	*Acer platanoides*	1	1	27.3	2.7	Good	Good	Good	Good	Protect	MUP	City of Brampton Park	43.74171126	-79.7229627
54	Norway maple	*Acer platanoides*	1	1	25.9	2.6	Good	Good	Good	Good	Protect	MUP	City of Brampton Park	43.7416207	-79.7230496
55	Norway maple	*Acer platanoides*	1	1	40	4.0	Good	Good	Good	Good	Protect	MUP	City of Brampton Park	43.74167806	-79.72312658
56	Silver maple	*Acer saccharinum*	1	1	50	5.0	Good	Good	Good	Good	Injure	Noise Wall	Private	43.74142756	-79.72315224
57	Silver maple	*Acer saccharinum*	1	2	50	7.1	Good	Good	Good	Good	Injure	MUP, Noise Wall	Private	43.74136953	-79.72319192
58	Silver maple	*Acer saccharinum*	1	1	70	7.0	Good	Good	Good	Good	Injure	MUP, Noise Wall	Private	43.74112915	-79.7233644
59	Silver maple	*Acer saccharinum*	1	2	70	9.9	Good	Good	Good	Good	Injure	lUP, Noise Wall, Cul	Private	43.74105971	-79.72341266

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
60	Norway maple	*Acer platanoides*	1	1	40	4.0	Good	Good	Good	Good	Injure	MUP, Noise Wall	Private	43.74096242	-79.7234904
61	Pear species	*Pyrus sp*	1	1	10	1.0	Good	Good	Good	Good	Retain		Private	43.74086893	-79.72356154
62	European buckthorn	*Rhamnus cathartica*	1	8	5	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.74049067	-79.72384352
63	Crabapple species	*Malus sp*	1	3	7	1.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.74047361	-79.72385668
64	European buckthorn	*Rhamnus cathartica*	1	5	3	0.7	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.74046444	-79.72386783
65	Norway maple	*Acer platanoides*	1	1	30	3.0	Good	Good	Good	Good	Injure	Noise Wall	Private	43.74045834	-79.72390012
66	Norway maple	*Acer platanoides*	1	1	50	5.0	Good	Good	Good	Good	Injure	MUP, Noise Wall	Private	43.74028378	-79.72405135
67	Cherry species	*Prunus sp*	1	1	15	1.5	Good	Good	Good	Good	Retain		Private	43.74020115	-79.7241229
68	Amur maple	*Acer ginnala*	1	1	2	0.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.74013864	-79.72415082
69	Norway maple	*Acer platanoides*	1	2	15	2.1	Good	Good	Good	Good	Remove	Noise Wall	Private	43.74011375	-79.72420009
70	European buckthorn	*Rhamnus cathartica*	1	6	4	1.0	Good	Good	Good	Good	Remove	MUP, Noise Wall	City of Brampton	43.73974211	-79.72450384
71	European buckthorn	*Rhamnus cathartica*	1	1	2	0.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73972981	-79.72451717
72	Norway maple	*Acer platanoides*	1	1	40	4.0	Good	Good	Good	Good	Remove	MUP, Noise Wall	Private	43.73947967	-79.7247604
73	Norway maple	*Acer platanoides*	1	1	45	4.5	Good	Good	Good	Good	Remove	MUP, Noise Wall	Private	43.7394661	-79.72477047
74	White ash	*Fraxinus americana*	1	1	3	0.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73942879	-79.72478645
75	Apple species	*Malus sp*	1	1	1	0.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73942472	-79.72479
76	Norway maple	*Acer platanoides*	1	1	60	6.0	Good	Good	Fair	Good	Injure	MUP	Private	43.73932408	-79.72491898
77	European buckthorn	*Rhamnus cathartica*	1	1	1	0.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73927811	-79.72492115
78	Norway maple	*Acer platanoides*	1	1	3	0.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73925446	-79.7249419
79	Blue spruce	*Picea pungens*	1	1	45	4.5	Good	Good	Good	Good	Injure	MUP, Noise Wall	Private	43.73906633	-79.72515217
80	Silver maple	*Acer saccharinum*	1	2	45	6.4	Good	Good	Good	Fair	Retain		Private	43.73891312	-79.72566372
81	Ash species	*Fraxinus sp*	1	4	4	0.8	Poor	Good	Good	Poor	Protect	MUP	Private	43.73780049	-79.72630075
82	Silver maple	*Acer saccharinum*	1	1	33.8	3.4	Good	Fair	Fair	Good	Protect	MUP	Private	43.73747985	-79.7266512
83	Norway maple	*Acer platanoides*	1	1	17.9	1.8	Good	Good	Good	Good	Protect	MUP	Private	43.73741282	-79.72671661
84	Austrian pine	*Pinus nigra*	1	1	33.2	3.3	Fair	Good	Good	Poor	Protect	MUP	Private	43.73710121	-79.7269895
85	Austrian pine	*Pinus nigra*	1	1	36.4	3.6	Good	Good	Good	Fair	Protect	MUP	Private	43.73707638	-79.72702007
86	Norway maple	*Acer platanoides*	1	1	23.3	2.3	Good	Good	Fair	Good	Protect	MUP	Private	43.73699461	-79.72708282
87	Basswood	*Tilia americana*	1	1	23.7	2.4	Fair	Good	Fair	Poor	Protect	MUP	Private	43.73676336	-79.72735717
88	Honey locust	*Gleditsia triacanthos*	1	1	12.7	1.3	Good	Good	Good	Good	Protect	MUP	Private	43.7358757	-79.72836776
89	Honey locust	*Gleditsia triacanthos*	1	1	12.2	1.2	Good	Good	Good	Good	Protect	MUP	Private	43.73566824	-79.72860288
90	Norway maple	*Acer platanoides*	1	2	40	5.7	Good	Good	Good	Good	Remove	Noise Wall	Private	43.73555097	-79.72887
91	Northern catalpa	*Catalpa speciosa*	1	1	25	2.5	Good	Good	Good	Good	Retain		Private	43.73550829	-79.72891108
92	Manitoba maple	*Acer negundo*	1	4	7	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73546984	-79.72887429
93	Manitoba maple	*Acer negundo*	1	1	20	2.0	Good	Good	Good	Good	Retain		Private	43.7354726	-79.72894189
94	Manitoba maple	*Acer negundo*	1	1	30	3.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73542684	-79.72893883
95	Manitoba maple	*Acer negundo*	1	2	10	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73540435	-79.72895443
96	Ash species	*Fraxinus sp*	1	2	4	0.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73535017	-79.72897514
97	Ash species	*Fraxinus sp*	1	2	4	0.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73533477	-79.72901044
98	Ash species	*Fraxinus sp*	1	1	3	0.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73528427	-79.72904862
99	White ash	*Fraxinus americana*	1	4	4	0.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73525454	-79.72909647
100	Norway maple	*Acer platanoides*	1	1	27.7	2.8	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7352325	-79.72916808
101	Silver maple	*Acer saccharinum*	1	1	4	0.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73521742	-79.72916786
102	Norway maple	*Acer platanoides*	1	1	13.3	1.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73519371	-79.72921502
103	Silver maple	*Acer saccharinum*	1	1	50	5.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73511489	-79.72930295
104	Silver maple	*Acer saccharinum*	1	1	45.5	4.6	Good	Good	Good	Good	Remove	MUP, Noise Wall	City of Brampton	43.73507982	-79.72934616
105	White ash	*Fraxinus americana*	1	2	2	0.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73502376	-79.72940952
106	Norway maple	*Acer platanoides*	1	1	25.5	2.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73499612	-79.7294442
107	Norway maple	*Acer platanoides*	1	1	2	0.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73495199	-79.72949485
108	Norway maple	*Acer platanoides*	1	1	2	0.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73493062	-79.72951982
109	Norway maple	*Acer platanoides*	1	1	50	5.0	Good	Good	Good	Good	Injure	Noise Wall	Private	43.7349406	-79.72958037
110	Elm species	*Ulmus sp*	1	1	26	2.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73486449	-79.72959807
111	Norway maple	*Acer platanoides*	1	1	30.4	3.0	Good	Good	Good	Good	Protect	Curb	City of Brampton	43.73491453	-79.72933588
112	Norway maple	*Acer platanoides*	1	1	36.8	3.7	Good	Fair	Good	Good	Remove	MUP	City of Brampton	43.73490488	-79.72943939
113	Ash species	*Fraxinus sp*	1	2	4	0.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73473028	-79.72975343
114	Ash species	*Fraxinus sp*	1	2	2	0.3	Poor	Good	Good	Poor	Remove	Noise Wall	City of Brampton	43.73471314	-79.72977459
115	Red Maple	*Acer rubrum*	1	1	30	3.0	Good	Good	Good	Good	Injure	Noise Wall	Private	43.7347299	-79.72979721
116	Ash species	*Fraxinus sp*	1	1	10	1.0	Good	Good	Good	Fair	Remove	Noise Wall	City of Brampton	43.734696	-79.72977669
117	Ash species	*Fraxinus sp*	1	1	5	0.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73467106	-79.72979403
118	Norway maple	*Acer platanoides*	1	5	5	1.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73466387	-79.72982821

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
119	Norway maple	*Acer platanoides*	1	2	5	0.7	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73465972	-79.72983548
120	Ash species	*Fraxinus sp*	1	1	3	0.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73460373	-79.72984789
121	Norway maple	*Acer platanoides*	1	1	17	1.7	Fair	Poor	Good	Fair	Protect	Noise Wall	City of Brampton	43.73454827	-79.72993618
122	Norway maple	*Acer platanoides*	1	1	16	1.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73452819	-79.7299838
123	Norway maple	*Acer platanoides*	1	1	22	2.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7345187	-79.729999
124	Ash species	*Fraxinus sp*	1	2	5	0.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73450797	-79.72998251
125	Norway maple	*Acer platanoides*	1	1	18.5	1.9	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73448616	-79.73003697
126	Norway maple	*Acer platanoides*	1	1	17	1.7	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73447884	-79.73003599
127	Norway maple	*Acer platanoides*	1	2	15	2.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73447826	-79.73012764
128	Norway maple	*Acer platanoides*	1	1	23.5	2.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73447769	-79.73014581
129	Norway maple	*Acer platanoides*	1	1	8	0.8	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73446824	-79.73015693
130	Norway maple	*Acer platanoides*	1	2	16	2.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73446482	-79.73017627
131	Norway maple	*Acer platanoides*	1	1	10.5	1.1	Fair	Fair	Fair	Good	Remove	Noise Wall	City of Brampton	43.73447441	-79.73025018
132	Norway maple	*Acer platanoides*	1	2	22.2	3.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73447381	-79.73027012
133	Norway maple	*Acer platanoides*	1	1	26.6	2.7	Good	Good	Fair	Good	Protect	Noise Wall	City of Brampton	43.73444757	-79.73029007
134	Norway maple	*Acer platanoides*	1	1	18.3	1.8	Fair	Good	Good	Poor	Protect	Noise Wall	City of Brampton	43.73440984	-79.73022008
135	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73437116	-79.73028578
136	Basswood	*Tilia americana*	1	1	41.5	4.2	Good	Good	Good	Good	Retain		City of Brampton	43.73449035	-79.73056363
137	Little leaf linden	*Tilia cordata*	1	1	19.9	2.0	Good	Good	Good	Good	Retain		City of Brampton	43.73375709	-79.72958789
138	Little leaf linden	*Tilia cordata*	1	1	18.3	1.8	Fair	Good	Good	Poor	Retain		City of Brampton	43.73381705	-79.72967169
139	Austrian pine	*Pinus nigra*	1	1	33	3.3	Good	Good	Good	Good	Retain		City of Brampton	43.73384162	-79.72950398
140	Austrian pine	*Pinus nigra*	1	1	39.3	3.9	Good	Good	Good	Good	Retain		City of Brampton	43.73386218	-79.72952767
141	Austrian pine	*Pinus nigra*	1	1	36	3.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73389462	-79.72956217
142	Austrian pine	*Pinus nigra*	1	1	45.7	4.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73396285	-79.72964286
143	Austrian pine	*Pinus nigra*	1	1	32	3.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73401156	-79.72965916
144	Austrian pine	*Pinus nigra*	1	1	24.2	2.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73402319	-79.72965011
145	Austrian pine	*Pinus nigra*	1	1	25	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73404291	-79.72965569
146	Austrian pine	*Pinus nigra*	1	1	33.2	3.3	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73406208	-79.7296512
147	Austrian pine	*Pinus nigra*	1	1	36.6	3.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73407958	-79.72966144
148	Austrian pine	*Pinus nigra*	1	1	29	2.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73409179	-79.72965553
149	Norway maple	*Acer platanoides*	1	1	7.3	0.7	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73413809	-79.72962875
150	Silver maple	*Acer saccharinum*	1	5	28.8	6.4	Good	Good	Good	Good	Remove	MUP, Noise Wall	City of Brampton	43.7341451	-79.72962952
151	Manitoba maple	*Acer negundo*	1	3	12	2.1	Fair	Good	Good	Fair	Injure	Grading	City of Brampton	43.7342333	-79.72957598
152	Norway maple	*Acer platanoides*	1	1	5	0.5	Good	Good	Good	Good	Injure	Grading	City of Brampton	43.73427157	-79.72954509
153	Norway maple	*Acer platanoides*	1	1	12	1.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73427046	-79.72948895
154	Cherry species	*Prunus sp*	1	1	4	0.4	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73432951	-79.72947847
155	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.73442462	-79.7293222
156	Norway maple	*Acer platanoides*	1	1	23.7	2.4	Poor	Poor	Good	Poor	Injure	MUP	City of Brampton	43.73448883	-79.72935253
157	Norway maple	*Acer platanoides*	1	1	5	0.5	Good	Good	Good	Good	Injure	Grading	City of Brampton	43.7345081	-79.72923739
158	Norway maple	*Acer platanoides*	1	3	8.8	1.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73452512	-79.72920573
159	Manitoba maple	*Acer negundo*	1	2	15	2.1	Good	Good	Good	Good	Injure	MUP, Noise Wall	City of Brampton	43.73458106	-79.72913946
160	Norway maple	*Acer platanoides*	1	1	17	1.7	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73462265	-79.72909499
161	Black walnut	*Juglans nigra*	1	1	10.3	1.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.73465023	-79.72906356
162	Amur maple	*Acer ginnala*	1	3	10	1.7	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73465371	-79.72905942
163	Norway maple	*Acer platanoides*	1	1	24	2.4	Fair	Poor	Fair	Good	Injure	Curb	City of Brampton	43.73482683	-79.72904174
164	Norway maple	*Acer platanoides*	1	1	18.3	1.8	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.7348803	-79.72890975
165	Manitoba maple	*Acer negundo*	1	2	30	4.2	Good	Good	Good	Good	Remove	Noise Wall	Private	43.73471036	-79.72895363
166	Norway maple	*Acer platanoides*	1	1	25	2.5	Good	Good	Good	Good	Remove	Noise Wall	Private	43.73472494	-79.72893878
167	Norway maple	*Acer platanoides*	1	1	12	1.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73491819	-79.72875894
168	Norway maple	*Acer platanoides*	1	1	9	0.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73495606	-79.72871396
169	Norway maple	*Acer platanoides*	1	1	9	0.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73502526	-79.72862965
170	Norway maple	*Acer platanoides*	1	1	6	0.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73508796	-79.72856715
171	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73509269	-79.72855068
172	European buckthorn	*Rhamnus cathartica*	1	1	13	1.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7350883	-79.72855144
173	Norway maple	*Acer platanoides*	1	1	5	0.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73512535	-79.72853053
174	Ash species	*Fraxinus sp*	1	3	4	0.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73514205	-79.72852339
175	Norway spruce	*Picea abies*	1	1	13.5	1.4	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.7352776	-79.72842783
176	Silver maple	*Acer saccharinum*	1	3	40	6.9	Good	Good	Good	Good	Remove	Noise Wall	Private	43.73526854	-79.72830498
177	Silver maple	*Acer saccharinum*	1	1	7	0.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73531587	-79.72830752

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
178	Eastern red cedar	*Juniperus virginiana*	1	1	11	1.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73537606	-79.72823232
179	Silver maple	*Acer saccharinum*	1	1	3	0.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73543701	-79.72820294
180	Norway maple	*Acer platanoides*	1	8	10	2.8	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73549563	-79.72808884
181	Cherry species	*Prunus sp*	1	2	6	0.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73554548	-79.72804802
182	Cherry species	*Prunus sp*	1	6	6	1.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73555417	-79.72803783
183	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73555723	-79.72802176
184	Norway maple	*Acer platanoides*	1	1	23	2.3	Good	Fair	Good	Good	Remove	MUP	City of Brampton	43.73559869	-79.72798681
185	Norway maple	*Acer platanoides*	1	1	30	3.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.73566549	-79.72800088
186	Norway maple	*Acer platanoides*	1	1	30.5	3.1	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73583133	-79.72778929
187	Norway maple	*Acer platanoides*	1	1	13.3	1.3	Fair	Fair	Good	Good	Retain		City of Brampton	43.73594843	-79.72734565
188	Norway maple	*Acer platanoides*	1	1	13	1.3	Good	Good	Good	Good	Remove	Grading	City of Brampton	43.73615853	-79.72732216
189	Norway maple	*Acer platanoides*	1	1	29.7	3.0	Fair	Fair	Good	Fair	Protect	MUP	City of Brampton	43.73628692	-79.72729812
190	Norway maple	*Acer platanoides*	1	1	23	2.3	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73623494	-79.72723689
191	Norway maple	*Acer platanoides*	1	2	14	2.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73625336	-79.72722426
192	Norway maple	*Acer platanoides*	1	1	15.7	1.6	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73627946	-79.72719628
193	Norway maple	*Acer platanoides*	1	1	9	0.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73632341	-79.72714813
194	Norway maple	*Acer platanoides*	1	1	18	1.8	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73634057	-79.72713663
195	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73633535	-79.72712243
196	Norway maple	*Acer platanoides*	1	1	13	1.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73636576	-79.72709961
197	Norway maple	*Acer platanoides*	1	1	13	1.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73635569	-79.72708952
198	Norway maple	*Acer platanoides*	1	1	14	1.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73637684	-79.72709665
199	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73636669	-79.72707387
200	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73639209	-79.72706754
201	Norway maple	*Acer platanoides*	1	1	41.2	4.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73645196	-79.72705712
202	Norway maple	*Acer platanoides*	1	1	9.5	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73646458	-79.72697075
203	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	Private	43.73646616	-79.72692772
204	Norway maple	*Acer platanoides*	1	1	36.5	3.7	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.73652548	-79.72696429
205	Norway maple	*Acer platanoides*	1	1	42.3	4.2	Good	Good	Good	Fair	Remove	MUP	City of Brampton	43.73659365	-79.72689372
206	Norway maple	*Acer platanoides*	1	1	24.5	2.5	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.73674344	-79.72681371
207	Red Maple	*Acer rubrum*	1	1	5.3	0.5	Fair	Good	Good	Poor	Injure	MUP	City of Brampton	43.73670415	-79.72675517
208	Red Maple	*Acer rubrum*	1	1	4.3	0.4	Fair	Good	Good	Fair	Remove	MUP	City of Brampton	43.73674677	-79.72671794
209	Red Maple	*Acer rubrum*	1	1	4	0.4	Fair	Good	Good	Fair	Protect	MUP	City of Brampton	43.73679589	-79.72665726
210	Red Maple	*Acer rubrum*	1	1	4	0.4	Fair	Good	Good	Fair	Protect	MUP	City of Brampton	43.73685225	-79.7266114
211	Red Maple	*Acer rubrum*	1	1	4	0.4	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.73691847	-79.72656338
212	Norway maple	*Acer platanoides*	1	1	32.9	3.3	Fair	Poor	Good	Good	Injure	MUP	City of Brampton	43.73696996	-79.72649984
213	Norway maple	*Acer platanoides*	1	1	18.5	1.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73691363	-79.72644982
214	Norway maple	*Acer platanoides*	1	1	16.6	1.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7369144	-79.72644282
215	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73691893	-79.72643235
216	Norway maple	*Acer platanoides*	1	2	8	1.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73694358	-79.72641823
217	Blue spruce	*Picea pungens*	1	1	30	3.0	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton Park	43.73704686	-79.72638196
218	Blue spruce	*Picea pungens*	1	1	30	3.0	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton Park	43.7370568	-79.72635753
219	Blue spruce	*Picea pungens*	1	1	22	2.2	Good	Good	Good	Good	Protect	MUP	City of Brampton Park	43.73713596	-79.72635502
220	Honey locust	*Gleditsia triacanthos*	1	1	35.8	3.6	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton Park	43.7371605	-79.72631066
221	Honey locust	*Gleditsia triacanthos*	1	1	30	3.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton Park	43.73716468	-79.7261843
222	Honey locust	*Gleditsia triacanthos*	1	1	38.8	3.9	Good	Good	Good	Fair	Injure	Noise Wall	City of Brampton Park	43.73724252	-79.72622558
223	Crabapple species	*Malus sp*	1	1	30	3.0	Good	Good	Good	Fair	Injure	MUP, Noise Wall	Private	43.73754878	-79.72595959
224	Eastern red cedar	*Juniperus virginiana*	1	2	20	2.8	Good	Good	Good	Good	Remove	MUP, Noise Wall	Private	43.73825345	-79.72534886
225	Eastern red cedar	*Juniperus virginiana*	1	1	15	1.5	Good	Good	Good	Good	Remove	MUP, Noise Wall	Private	43.73827736	-79.7253283
226	White spruce	*Picea glauca*	1	1	25	2.5	Good	Good	Good	Good	Injure	Noise Wall	Private	43.73830723	-79.7250601
227	Manitoba maple	*Acer negundo*	1	1	3	0.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73875596	-79.72491786
228	Norway maple	*Acer platanoides*	1	2	10	1.4	Good	Good	Good	Good	Remove	MUP, Noise Wall	Private	43.73901331	-79.72467132
229	Crabapple species	*Malus sp*	1	1	20	2.0	Good	Good	Good	Good	Remove	MUP, Noise Wall	Private	43.73906198	-79.72461815
230	Norway maple	*Acer platanoides*	1	1	40	4.0	Good	Good	Good	Good	Injure	MUP, Noise Wall	Private	43.739206	-79.72448071
231	Norway maple	*Acer platanoides*	1	1	30	3.0	Good	Good	Good	Good	Remove	MUP, Noise Wall	Private	43.73927767	-79.72442449
232	Crabapple species	*Malus sp*	1	1	20	2.0	Fair	Good	Good	Poor	Remove	MUP, Noise Wall	Private	43.73939889	-79.72431756
233	Crabapple species	*Malus sp*	1	1	25	2.5	Fair	Good	Good	Fair	Remove	MUP, Noise Wall	Private	43.73952583	-79.72420695
234	Elm species	*Ulmus sp*	1	1	2	0.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton Park	43.73979808	-79.72394401
235	Elm species	*Ulmus sp*	1	1	3	0.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton Park	43.73982305	-79.72388332
236	Elm species	*Ulmus sp*	1	1	3	0.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton Park	43.73984979	-79.72383123

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
237	Honey locust	*Gleditsia triacanthos*	1	1	57.8	5.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton Park	43.73993803	-79.72362592
238	Austrian pine	*Pinus nigra*	1	1	31.2	3.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton Park	43.73999089	-79.72364631
239	Austrian pine	*Pinus nigra*	1	1	32.5	3.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton Park	43.73999881	-79.72362691
240	Austrian pine	*Pinus nigra*	1	1	35	3.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton Park	43.74000251	-79.72365189
241	Amur maple	*Acer ginnala*	1	1	14.6	1.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74013165	-79.72361128
242	Amur maple	*Acer ginnala*	1	1	10	1.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74015251	-79.72360212
243	Amur maple	*Acer ginnala*	1	5	14	3.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74017346	-79.72359048
244	Amur maple	*Acer ginnala*	1	3	11.1	1.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74023919	-79.72354216
245	Amur maple	*Acer ginnala*	1	5	16	3.6	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74028368	-79.72351159
246	Amur maple	*Acer ginnala*	1	4	18.5	3.7	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74034603	-79.72348685
247	Austrian pine	*Pinus nigra*	1	1	19.2	1.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74034404	-79.72348559
248	Austrian pine	*Pinus nigra*	1	1	28.7	2.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74040281	-79.72343758
249	Amur maple	*Acer ginnala*	1	5	14	3.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74043649	-79.72341679
250	Amur maple	*Acer ginnala*	1	1	15	1.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.74045859	-79.72338711
251	Amur maple	*Acer ginnala*	1	5	12	2.7	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74046437	-79.72338383
252	Austrian pine	*Pinus nigra*	1	1	31	3.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.7404726	-79.72337528
253	Amur maple	*Acer ginnala*	1	3	15	2.6	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74050607	-79.72335356
254	Amur maple	*Acer ginnala*	1	3	12	2.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74054311	-79.72330258
255	Amur maple	*Acer ginnala*	1	1	13	1.3	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.74054817	-79.72329671
256	Amur maple	*Acer ginnala*	1	1	13	1.3	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74058791	-79.72326314
257	Silver maple	*Acer saccharinum*	1	1	40	4.0	Good	Good	Good	Good	Injure	Noise Wall	Private	43.7405881	-79.72311553
258	Amur maple	*Acer ginnala*	1	5	15	3.4	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74069128	-79.72315927
259	Amur maple	*Acer ginnala*	1	3	12	2.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74072054	-79.72312604
260	Amur maple	*Acer ginnala*	1	3	10	1.7	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74076622	-79.72309903
261	Amur maple	*Acer ginnala*	1	1	15	1.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74078243	-79.72309152
262	Amur maple	*Acer ginnala*	1	5	14	3.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74081984	-79.72306043
263	Amur maple	*Acer ginnala*	1	2	13	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74084463	-79.72302164
264	Amur maple	*Acer ginnala*	1	5	16	3.6	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74087098	-79.72302102
265	Amur maple	*Acer ginnala*	1	3	19	3.3	Fair	Fair	Good	Good	Remove	MUP	City of Brampton	43.7409083	-79.72301426
266	Honey locust	*Gleditsia triacanthos*	1	1	37.9	3.8	Good	Good	Good	Good	Retain		City of Brampton	43.74095838	-79.72277929
267	Honey locust	*Gleditsia triacanthos*	1	1	39.6	4.0	Good	Good	Good	Good	Retain		City of Brampton	43.74092495	-79.72269911
268	Honey locust	*Gleditsia triacanthos*	1	1	35.2	3.5	Good	Good	Good	Good	Retain		City of Brampton	43.74102584	-79.72266967
269	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74123216	-79.72271992
270	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74124764	-79.72269375
271	Manitoba maple	*Acer negundo*	1	4	24.3	4.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74129638	-79.72264273
272	Norway maple	*Acer platanoides*	1	1	25	2.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74138452	-79.72258605
273	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74141454	-79.72256532
274	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.74145962	-79.72251963
275	Willow species	*Salix sp*	1	1	21	2.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74149347	-79.72250151
276	Willow species	*Salix sp*	1	1	11	1.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74152438	-79.72248303
277	Willow species	*Salix sp*	1	1	25	2.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.7415867	-79.72242032
278	Willow species	*Salix sp*	1	1	25	2.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.74163855	-79.72238129
279	Willow species	*Salix sp*	1	1	17	1.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74166207	-79.72236923
280	Willow species	*Salix sp*	1	1	25	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74169703	-79.72234495
281	Norway maple	*Acer platanoides*	1	1	35	3.5	Poor	Good	Poor	Poor	Injure	Noise Wall	City of Brampton	43.74173563	-79.72231364
282	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74176929	-79.72229295
283	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74175918	-79.72229146
284	Norway maple	*Acer platanoides*	1	1	13	1.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74177207	-79.72229108
285	Willow species	*Salix sp*	1	3	20	3.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.74181678	-79.72227612
286	White poplar	*Populus alba*	1	3	16.5	2.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74189928	-79.72222411
287	White poplar	*Populus alba*	1	3	13	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74193473	-79.72218318
288	White poplar	*Populus alba*	1	4	16.2	3.2	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.74196329	-79.72214726
289	Austrian pine	*Pinus nigra*	1	1	36	3.6	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74198563	-79.72219802
290	Austrian pine	*Pinus nigra*	1	1	33.5	3.4	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.7420151	-79.72217219
291	Elm species	*Ulmus sp*	1	1	23.5	2.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74204002	-79.72210545
292	White poplar	*Populus alba*	1	2	30.8	4.4	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.7420614	-79.72208196
293	Elm species	*Ulmus sp*	1	1	17	1.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74209264	-79.72207943
294	Ginkgo	*Ginkgo biloba*	1	1	8	0.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74212173	-79.72205008
295	Mulberry species	*Morus sp*	1	1	45	4.5	Good	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.74230129	-79.72188103

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
296	Amur maple	*Acer ginnala*	1	4	12.3	2.5	Good	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.7423462	-79.72185125
297	Ash species	*Fraxinus sp*	1	7	10	2.7	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.74238077	-79.72181234
298	Norway maple	*Acer platanoides*	1	3	18.5	3.2	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.74242402	-79.72179257
299	Norway maple	*Acer platanoides*	1	1	50	5.0	Good	Good	Good	Good	Remove	Noise Wall	Private	43.74248866	-79.72169967
300	Norway maple	*Acer platanoides*	1	1	40	4.0	Good	Good	Good	Good	Injure	Noise Wall	Private	43.74252024	-79.72164364
301	Silver maple	*Acer saccharinum*	1	15	18	7.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74268333	-79.72157472
302	Norway maple	*Acer platanoides*	1	1	24.9	2.5	Good	Good	Good	Good	Injure	MUP, Noise Wall	City of Brampton	43.74295446	-79.72133086
303	Amur maple	*Acer ginnala*	1	1	23	2.3	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.74313715	-79.72113853
304	Austrian pine	*Pinus nigra*	1	1	37.3	3.7	Good	Good	Good	Fair	Remove	MUP	City of Brampton	43.7432221	-79.72109816
305	Austrian pine	*Pinus nigra*	1	1	27.3	2.7	Good	Good	Good	Fair	Remove	MUP	City of Brampton	43.74324429	-79.72106697
306	Austrian pine	*Pinus nigra*	1	1	48	4.8	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74327647	-79.72103432
307	Norway maple	*Acer platanoides*	1	1	27.2	2.7	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.74334358	-79.72090021
308	Norway maple	*Acer platanoides*	1	1	40	4.0	Good	Good	Good	Good	Remove	Noise Wall	Private	43.74340877	-79.72074533
309	Norway maple	*Acer platanoides*	1	1	45	4.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.74363947	-79.72048624
310	Norway maple	*Acer platanoides*	1	1	42.8	4.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.74365076	-79.72038631
311	Honey locust	*Gleditsia triacanthos*	1	1	53.2	5.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74370854	-79.72024185
312	Honey locust	*Gleditsia triacanthos*	1	1	39.4	3.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74375378	-79.72017068
313	Honey locust	*Gleditsia triacanthos*	1	1	40.5	4.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.74370904	-79.72009148
314	Apple species	*Malus sp*	1	1	21	2.1	Poor	Poor	Fair	Fair	Protect	Median	City of Brampton	43.74341617	-79.72119276
315	Apple species	*Malus sp*	1	1	19	1.9	Fair	Good	Fair	Fair	Protect	Median	City of Brampton	43.74316252	-79.72150153
316	Apple species	*Malus sp*	1	1	16	1.6	Good	Good	Good	Good	Protect	Median	City of Brampton	43.74297228	-79.72168249
317	Apple species	*Malus sp*	1	1	12.7	1.3	Good	Good	Good	Good	Protect	Median	City of Brampton	43.74292676	-79.72172852
318	Apple species	*Malus sp*	1	1	19.1	1.9	Fair	Fair	Good	Fair	Protect	Median	City of Brampton	43.74257468	-79.72201405
319	Apple species	*Malus sp*	1	1	13.5	1.4	Fair	Good	Fair	Fair	Protect	Median	City of Brampton	43.74211589	-79.72236258
320	Apple species	*Malus sp*	1	1	20	2.0	Good	Good	Good	Good	Protect	Median	City of Brampton	43.74207267	-79.72239719
321	Apple species	*Malus sp*	1	1	14.6	1.5	Good	Good	Good	Good	Protect	Median	City of Brampton	43.741869	-79.72255945
322	Austrian pine	*Pinus nigra*	1	1	37.5	3.8	Good	Good	Good	Fair	Remove	MUP	Private	43.73343939	-79.73057435
323	Austrian pine	*Pinus nigra*	1	1	37.5	3.8	Good	Good	Good	Fair	Remove	MUP	Private	43.7334852	-79.73051813
324	Austrian pine	*Pinus nigra*	1	1	31.8	3.2	Good	Good	Good	Fair	Retain		Private	43.73359301	-79.73022936
325	Austrian pine	*Pinus nigra*	1	1	40.1	4.0	Good	Good	Good	Good	Retain		Private	43.73358939	-79.73019053
326	Honey locust	*Gleditsia triacanthos*	1	1	8.5	0.9	Good	Good	Good	Good	Protect	Median	City of Brampton	43.73473142	-79.72935541
327	Hawthorn species	*Crataegus sp*	1	1	20	2.0	Fair	Poor	Good	Good	Protect	Median	City of Brampton	43.73484209	-79.72922845
328	Honey locust	*Gleditsia triacanthos*	1	1	11.4	1.1	Good	Good	Good	Good	Protect	Median	City of Brampton	43.73492313	-79.72913593
329	Norway maple	*Acer platanoides*	1	1	24.2	2.4	Good	Good	Fair	Good	Retain		City of Brampton	43.73421904	-79.73084863
330	Amur maple	*Acer ginnala*	1	9	9	2.7	Good	Good	Good	Good	Retain		City of Brampton	43.73419865	-79.73086121
331	Willow species	*Salix sp*	1	1	28	2.8	Good	Good	Good	Good	Retain		City of Brampton	43.73417775	-79.73085658
332	Amur maple	*Acer ginnala*	1	4	22	4.4	Good	Good	Good	Good	Retain		City of Brampton	43.73416522	-79.73084878
333	Amur maple	*Acer ginnala*	1	2	15	2.1	Good	Good	Good	Good	Retain		City of Brampton	43.73414656	-79.73081927
334	Amur maple	*Acer ginnala*	1	4	14	2.8	Good	Good	Good	Good	Retain		City of Brampton	43.73412706	-79.73080111
335	Amur maple	*Acer ginnala*	1	6	13.5	3.3	Good	Good	Good	Good	Retain		City of Brampton	43.73411385	-79.73078963
336	White spruce	*Picea glauca*	1	1	16	1.6	Good	Good	Good	Good	Retain		City of Brampton	43.73412727	-79.73078579
337	Amur maple	*Acer ginnala*	1	4	12	2.4	Fair	Poor	Good	Good	Retain		City of Brampton	43.73409164	-79.73072837
338	Apple species	*Malus sp*	1	1	25	2.5	Fair	Fair	Good	Good	Retain		City of Brampton	43.73408026	-79.7307085
339	Norway maple	*Acer platanoides*	1	1	24.2	2.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73400718	-79.7306527
340	Norway maple	*Acer platanoides*	1	2	25	3.5	Good	Good	Good	Good	Retain	Noise Wall	Private	43.73398935	-79.73070125
341	Norway maple	*Acer platanoides*	1	1	27.1	2.7	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73392477	-79.73064785
342	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73390176	-79.73068023
343	Amur maple	*Acer ginnala*	1	1	11	1.1	Poor	Fair	Good	Poor	Remove	Noise Wall	City of Brampton	43.7338987	-79.73069657
344	Norway maple	*Acer platanoides*	1	1	6	0.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73387802	-79.73072625
345	Amur maple	*Acer ginnala*	1	2	10.3	1.5	Fair	Good	Poor	Good	Remove	Noise Wall	City of Brampton	43.73384778	-79.73076199
346	Amur maple	*Acer ginnala*	1	4	13	2.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73382353	-79.73078327
347	Amur maple	*Acer ginnala*	1	6	10	2.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73381218	-79.73079576
348	Willow species	*Salix sp*	1	1	26.6	2.7	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73379702	-79.73081469
349	Willow species	*Salix sp*	1	1	19.8	2.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73376232	-79.73084271
350	Norway maple	*Acer platanoides*	1	1	13.4	1.3	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73375146	-79.73086008
351	Willow species	*Salix sp*	1	2	26.5	3.8	Fair	Fair	Good	Fair	Injure	Noise Wall	City of Brampton	43.73371533	-79.7309003
352	Norway maple	*Acer platanoides*	1	1	36	3.6	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.73370146	-79.73085921
353	Norway maple	*Acer platanoides*	1	1	9	0.9	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73368839	-79.73093651
354	Willow species	*Salix sp*	1	2	32.8	4.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73367284	-79.73095945

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
355	Norway maple	*Acer platanoides*	1	1	8	0.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73365847	-79.7309678
356	Willow species	*Salix sp*	1	1	19	1.9	Poor	Poor	Good	Poor	Remove	Noise Wall	City of Brampton	43.73366213	-79.73097377
357	Norway maple	*Acer platanoides*	1	1	33.8	3.4	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73362923	-79.73093035
358	Norway maple	*Acer platanoides*	1	1	31.7	3.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73360744	-79.73096889
359	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73362917	-79.73101188
360	Willow species	*Salix sp*	1	1	23	2.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73362588	-79.73101216
361	Willow species	*Salix sp*	1	1	25	2.5	Fair	Good	Good	Poor	Injure	Noise Wall	City of Brampton	43.73360263	-79.73102482
362	Willow species	*Salix sp*	1	1	18	1.8	Fair	Fair	Good	Fair	Protect	Noise Wall	City of Brampton	43.73356824	-79.73105659
363	Willow species	*Salix sp*	1	1	15	1.5	Fair	Fair	Good	Fair	Remove	Noise Wall	City of Brampton	43.73356704	-79.73108166
364	European buckthorn	*Rhamnus cathartica*	1	8	10	2.8	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73354605	-79.73109154
365	Apple species	*Malus sp*	1	4	15	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73350401	-79.73107904
366	Apple species	*Malus sp*	1	2	14	2.0	Poor	Fair	Fair	Poor	Protect	Noise Wall	City of Brampton	43.73348153	-79.73109534
367	Willow species	*Salix sp*	1	1	15	1.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.733511	-79.73113525
368	Willow species	*Salix sp*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73347101	-79.73117076
369	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73344706	-79.73120834
370	Willow species	*Salix sp*	1	1	30	3.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.733433	-79.73122478
371	Austrian pine	*Pinus nigra*	1	1	40	4.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73338356	-79.73126289
372	Austrian pine	*Pinus nigra*	1	1	27.2	2.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73333498	-79.7312928
373	Austrian pine	*Pinus nigra*	1	1	25.8	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73331681	-79.7313075
374	Apple species	*Malus sp*	1	1	36	3.6	Good	Fair	Good	Good	Protect	MUP	City of Brampton	43.73329708	-79.73132095
375	Apple species	*Malus sp*	1	2	23	3.3	Good	Fair	Good	Good	Protect	Noise Wall	City of Brampton	43.7332768	-79.73134865
376	Norway maple	*Acer platanoides*	1	1	15.6	1.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73330458	-79.7313801
377	Norway maple	*Acer platanoides*	1	1	24.5	2.5	Fair	Poor	Good	Good	Protect	Noise Wall	City of Brampton	43.7332589	-79.73137793
378	Norway maple	*Acer platanoides*	1	1	23	2.3	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.73323979	-79.73136917
379	Norway maple	*Acer platanoides*	1	1	25.4	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73323992	-79.73140135
380	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73327214	-79.73141911
381	Norway maple	*Acer platanoides*	1	1	10	1.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7332435	-79.73146478
382	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73323461	-79.73147695
383	Manitoba maple	*Acer negundo*	1	1	16	1.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73320032	-79.73151097
384	Austrian pine	*Pinus nigra*	1	1	35.7	3.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73313002	-79.73153365
385	Norway maple	*Acer platanoides*	1	1	9.3	0.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73313689	-79.73155633
386	Norway maple	*Acer platanoides*	1	1	10.4	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73311798	-79.73159292
387	Norway maple	*Acer platanoides*	1	1	9	0.9	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73310409	-79.73161557
388	Norway maple	*Acer platanoides*	1	1	21.5	2.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73309813	-79.73162044
389	Norway maple	*Acer platanoides*	1	1	21.6	2.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73307557	-79.7316666
390	Norway maple	*Acer platanoides*	1	1	10.5	1.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73307409	-79.73167173
391	Norway maple	*Acer platanoides*	1	1	30.7	3.1	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73304343	-79.73165709
392	Austrian pine	*Pinus nigra*	1	1	29.5	3.0	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73302253	-79.7316093
393	Norway maple	*Acer platanoides*	1	1	31.5	3.2	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73296477	-79.7316805
394	Norway maple	*Acer platanoides*	1	1	45	4.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73300204	-79.73171566
395	Norway maple	*Acer platanoides*	1	1	12	1.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73299801	-79.73174648
396	Norway maple	*Acer platanoides*	1	1	30.1	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73293286	-79.73174498
397	Apple species	*Malus sp*	1	1	27.5	2.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73290022	-79.73177354
398	Apple species	*Malus sp*	1	3	12.3	2.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73291979	-79.73179659
399	Norway maple	*Acer platanoides*	1	1	11	1.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7329009	-79.73182263
400	Apple species	*Malus sp*	1	6	12	2.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73286969	-79.73181446
401	Norway maple	*Acer platanoides*	1	1	14	1.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73289196	-79.73184037
402	Amur maple	*Acer ginnala*	1	1	14	1.4	Poor	Fair	Poor	Poor	Protect	Noise Wall	City of Brampton	43.7328809	-79.7318581
403	Norway maple	*Acer platanoides*	1	1	23.8	2.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73282673	-79.73189028
404	Norway maple	*Acer platanoides*	1	2	12.2	1.7	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73280256	-79.73195215
405	Norway maple	*Acer platanoides*	1	1	15.3	1.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73280095	-79.73196122
406	Norway maple	*Acer platanoides*	1	1	10.7	1.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73279608	-79.73196085
407	Amur maple	*Acer ginnala*	1	3	11	1.9	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.7327779	-79.73197683
408	Norway maple	*Acer platanoides*	1	1	14.2	1.4	Fair	Good	Good	Poor	Protect	Noise Wall	City of Brampton	43.73277221	-79.73198544
409	Norway maple	*Acer platanoides*	1	3	22.4	3.9	Fair	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.7327683	-79.73202198
410	Willow species	*Salix sp*	1	2	22.9	3.2	Good	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.73274661	-79.73203388
411	Norway maple	*Acer platanoides*	1	1	25.7	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73272447	-79.73199707
412	Norway maple	*Acer platanoides*	1	1	32.6	3.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73268672	-79.7320499
413	Willow species	*Salix sp*	1	1	20.3	2.0	Poor	Fair	Fair	Poor	Injure	Noise Wall	City of Brampton	43.73269699	-79.73207871

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
414	Norway spruce	*Picea abies*	1	1	25.4	2.5	Good	Good	Good	Fair	Injure	Noise Wall	City of Brampton	43.73266849	-79.73210866
415	Willow species	*Salix sp*	1	1	20.8	2.1	Poor	Fair	Fair	Poor	Injure	Noise Wall	City of Brampton	43.73264592	-79.73212876
416	Norway maple	*Acer platanoides*	1	1	26.3	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73262258	-79.73209842
417	Willow species	*Salix sp*	1	1	23	2.3	Poor	Poor	Fair	Poor	Protect	Noise Wall	City of Brampton	43.73261203	-79.73214676
418	Willow species	*Salix sp*	1	1	21.9	2.2	Poor	Poor	Fair	Poor	Injure	Noise Wall	City of Brampton	43.73261091	-79.73217163
419	Norway maple	*Acer platanoides*	1	1	22.1	2.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7326197	-79.73219483
420	Norway maple	*Acer platanoides*	1	1	34.7	3.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73259232	-79.73216886
421	Willow species	*Salix sp*	1	2	10	1.4	Poor	Fair	Fair	Poor	Protect	Noise Wall	City of Brampton	43.73258878	-79.73219898
422	Willow species	*Salix sp*	1	1	25.4	2.5	Fair	Fair	Fair	Fair	Injure	Noise Wall	City of Brampton	43.73255066	-79.7322439
423	Willow species	*Salix sp*	1	1	24	2.4	Fair	Fair	Fair	Fair	Protect	Noise Wall	City of Brampton	43.73253185	-79.73224815
424	Austrian pine	*Pinus nigra*	1	1	25	2.5	Good	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.73251549	-79.7322493
425	Norway maple	*Acer platanoides*	1	1	22.5	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73252241	-79.73221801
426	Willow species	*Salix sp*	1	1	23.5	2.4	Poor	Poor	Fair	Poor	Injure	Noise Wall	City of Brampton	43.73249291	-79.73229882
427	Austrian pine	*Pinus nigra*	1	1	25	2.5	Good	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.7324799	-79.7322672
428	Apple species	*Malus sp*	1	1	23.5	2.4	Fair	Poor	Fair	Fair	Remove	Noise Wall	City of Brampton	43.73248809	-79.73232511
429	Willow species	*Salix sp*	1	1	29	2.9	Fair	Poor	Fair	Fair	Injure	Noise Wall	City of Brampton	43.73247151	-79.73231976
430	Willow species	*Salix sp*	1	1	13	1.3	Fair	Fair	Fair	Fair	Remove	Noise Wall	City of Brampton	43.73248286	-79.73234374
431	Apple species	*Malus sp*	1	5	15	3.4	Good	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.73245293	-79.73236978
432	Apple species	*Malus sp*	1	1	18	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73242515	-79.73238374
433	Apple species	*Malus sp*	1	1	15.2	1.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73236853	-79.73235803
434	Austrian pine	*Pinus nigra*	1	1	40.8	4.1	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.73239546	-79.732366
435	Willow species	*Salix sp*	1	1	25	2.5	Fair	Fair	Good	Fair	Remove	Noise Wall	City of Brampton	43.73236008	-79.73247517
436	Willow species	*Salix sp*	1	1	15	1.5	Fair	Fair	Good	Fair	Protect	Noise Wall	City of Brampton	43.73232528	-79.73248568
437	Willow species	*Salix sp*	1	1	12	1.2	Fair	Fair	Good	Fair	Protect	Noise Wall	City of Brampton	43.73231159	-79.73251603
438	Austrian pine	*Pinus nigra*	1	1	37	3.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73229135	-79.73250748
439	Staghorn sumac	*Rhus typhina*	1	1	14.5	1.5	Good	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.73213841	-79.73275502
440	Norway maple	*Acer platanoides*	1	1	10.4	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7321962	-79.73259999
441	Austrian pine	*Pinus nigra*	1	1	39.7	4.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73217083	-79.7326391
442	Austrian pine	*Pinus nigra*	1	1	28	2.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73214208	-79.73266071
443	Austrian pine	*Pinus nigra*	1	1	30	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73212937	-79.7326986
444	Apple species	*Malus sp*	1	1	11	1.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7321212	-79.73267126
445	Apple species	*Malus sp*	1	3	15	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73211643	-79.73268543
446	Apple species	*Malus sp*	1	2	17.9	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73202744	-79.73279918
447	Norway maple	*Acer platanoides*	1	1	12.7	1.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7320272	-79.73280836
448	Norway maple	*Acer platanoides*	1	1	11.7	1.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73199765	-79.73286131
449	Norway maple	*Acer platanoides*	1	1	10.7	1.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73198543	-79.73288144
450	Norway maple	*Acer platanoides*	1	1	19.5	2.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73198461	-79.73290864
451	Norway maple	*Acer platanoides*	1	1	11.4	1.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73198689	-79.73291569
452	Apple species	*Malus sp*	1	1	19	1.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73198272	-79.73286383
453	Apple species	*Malus sp*	1	1	11.5	1.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73197653	-79.73287852
454	Apple species	*Malus sp*	1	1	21	2.1	Fair	Good	Fair	Fair	Protect	Noise Wall	City of Brampton	43.73195901	-79.73288541
455	Norway maple	*Acer platanoides*	1	1	23.5	2.4	Fair	Fair	Fair	Good	Protect	Noise Wall	City of Brampton	43.73194402	-79.73290028
456	Norway maple	*Acer platanoides*	1	1	23.1	2.3	Fair	Fair	Good	Fair	Protect	Noise Wall	City of Brampton	43.73190943	-79.73291868
457	Norway maple	*Acer platanoides*	1	1	29.8	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73188167	-79.73297644
458	Norway maple	*Acer platanoides*	1	1	12.3	1.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73189755	-79.73301149
459	Norway maple	*Acer platanoides*	1	1	26.2	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73184808	-79.73302843
460	Austrian pine	*Pinus nigra*	1	1	35.3	3.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73180082	-79.73308091
461	Amur maple	*Acer ginnala*	1	4	14	2.8	Fair	Good	Good	Fair	Injure	Noise Wall	City of Brampton	43.73179722	-79.73311561
462	Amur maple	*Acer ginnala*	1	1	14	1.4	Fair	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.73175526	-79.73316569
463	Amur maple	*Acer ginnala*	1	3	13	2.3	Fair	Good	Good	Fair	Remove	Noise Wall	City of Brampton	43.73176077	-79.73317525
464	Amur maple	*Acer ginnala*	1	3	13	2.3	Fair	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.73172966	-79.73318206
465	Austrian pine	*Pinus nigra*	1	1	40	4.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73170987	-79.73316367
466	Austrian pine	*Pinus nigra*	1	1	31	3.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73169398	-79.7332089
467	Amur maple	*Acer ginnala*	1	3	15	2.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73170146	-79.73323006
468	Amur maple	*Acer ginnala*	1	5	11.4	2.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73168719	-79.73324619
469	Amur maple	*Acer ginnala*	1	2	15	2.1	Fair	Poor	Good	Good	Remove	Noise Wall	City of Brampton	43.73167065	-79.733272
470	Amur maple	*Acer ginnala*	1	5	15	3.4	Fair	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.73166312	-79.73328222
471	Amur maple	*Acer ginnala*	1	5	13	2.9	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73162411	-79.7333304
472	Amur maple	*Acer ginnala*	1	4	11.7	2.3	Fair	Fair	Good	Good	Protect	Noise Wall	City of Brampton	43.73157207	-79.73336589

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
473	Willow species	*Salix sp*	1	1	26	2.6	Poor	Poor	Fair	Poor	Remove	Noise Wall	City of Brampton	43.73156209	-79.73341153
474	Willow species	*Salix sp*	1	2	23.5	3.3	Poor	Poor	Fair	Poor	Remove	Noise Wall	City of Brampton	43.73153197	-79.73344313
475	Norway maple	*Acer platanoides*	1	1	11	1.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73153634	-79.73345007
476	Norway maple	*Acer platanoides*	1	1	16.4	1.6	Fair	Good	Good	Fair	Injure	Noise Wall	City of Brampton	43.73150641	-79.73345719
477	Norway maple	*Acer platanoides*	1	1	13.6	1.4	Good	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.73149658	-79.73345261
478	Norway maple	*Acer platanoides*	1	1	26.9	2.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73148206	-79.73343411
479	Willow species	*Salix sp*	1	1	23.4	2.3	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73148484	-79.73348424
480	Norway maple	*Acer platanoides*	1	1	17.8	1.8	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73149084	-79.73349966
481	Norway maple	*Acer platanoides*	1	2	10	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7314771	-79.733514
482	Willow species	*Salix sp*	1	1	16.5	1.7	Fair	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.73142642	-79.73356036
483	Willow species	*Salix sp*	1	1	19.8	2.0	Fair	Fair	Fair	Good	Remove	Noise Wall	City of Brampton	43.73140004	-79.73360199
484	Willow species	*Salix sp*	1	1	20.4	2.0	Poor	Fair	Poor	Poor	Protect	Noise Wall	City of Brampton	43.73135408	-79.73362708
485	Willow species	*Salix sp*	1	1	16.2	1.6	Fair	Fair	Poor	Poor	Protect	Noise Wall	City of Brampton	43.73132448	-79.73365687
486	Norway maple	*Acer platanoides*	1	1	23.8	2.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73129886	-79.73366668
487	Norway maple	*Acer platanoides*	1	1	28.7	2.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73133099	-79.73362329
488	Norway maple	*Acer platanoides*	1	1	38.9	3.9	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73137763	-79.73359687
489	Norway maple	*Acer platanoides*	1	1	30.3	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73139252	-79.73353121
490	Norway maple	*Acer platanoides*	1	1	16.2	1.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73125131	-79.7337919
491	Norway maple	*Acer platanoides*	1	1	15.5	1.6	Fair	Poor	Good	Fair	Protect	Median	City of Brampton	43.73249035	-79.73196584
492	Norway maple	*Acer platanoides*	1	1	16.5	1.7	Good	Good	Good	Good	Protect	Median	City of Brampton	43.73241236	-79.73205887
493	Willow species	*Salix sp*	1	1	22.4	2.2	Poor	Fair	Poor	Poor	Remove	Noise Wall	City of Brampton	43.73099048	-79.73408026
494	Norway maple	*Acer platanoides*	1	1	35.1	3.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73097609	-79.73406344
495	Norway maple	*Acer platanoides*	1	1	41.3	4.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73095181	-79.73411326
496	Norway maple	*Acer platanoides*	1	1	37.8	3.8	Good	Good	Good	Fair	Injure	Noise Wall	City of Brampton	43.73092167	-79.73412831
497	Norway maple	*Acer platanoides*	1	1	37.7	3.8	Fair	Poor	Good	Good	Injure	Noise Wall	City of Brampton	43.73085499	-79.73420361
498	Norway maple	*Acer platanoides*	1	1	19.5	2.0	Good	Good	Good	Fair	Remove	Noise Wall	City of Brampton	43.73091479	-79.7341653
499	Norway maple	*Acer platanoides*	1	1	13.7	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73091107	-79.73417485
500	Austrian pine	*Pinus nigra*	1	1	38	3.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73083644	-79.73417344
501	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73084704	-79.73424602
502	European buckthorn	*Rhamnus cathartica*	1	4	14	2.8	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73082016	-79.73424434
503	Austrian pine	*Pinus nigra*	1	1	40.8	4.1	Good	Good	Good	Fair	Injure	Noise Wall	City of Brampton	43.73080575	-79.73422825
504	Austrian pine	*Pinus nigra*	1	1	32.3	3.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73078281	-79.7342222
505	Austrian pine	*Pinus nigra*	1	1	39.5	4.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7307689	-79.73425169
506	Austrian pine	*Pinus nigra*	1	1	32	3.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73073617	-79.73430485
507	Amur maple	*Acer ginnala*	1	2	16.5	2.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73079963	-79.73428481
508	Apple species	*Malus sp*	1	2	25.2	3.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73073173	-79.73428629
509	Apple species	*Malus sp*	1	1	28	2.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7306937	-79.7343106
510	Apple species	*Malus sp*	1	1	13	1.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73072147	-79.73435938
511	Amur maple	*Acer ginnala*	1	3	13	2.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7306772	-79.73442684
512	Amur maple	*Acer ginnala*	1	3	17	2.9	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73068151	-79.73443774
513	Amur maple	*Acer ginnala*	1	3	15	2.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73066007	-79.73442613
514	Amur maple	*Acer ginnala*	1	5	10	2.2	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73065666	-79.734444
515	Amur maple	*Acer ginnala*	1	2	11.5	1.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73061707	-79.73447901
516	Amur maple	*Acer ginnala*	1	3	13.5	2.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.73061197	-79.73449998
517	Amur maple	*Acer ginnala*	1	3	11.2	1.9	Fair	Poor	Fair	Fair	Remove	Noise Wall	City of Brampton	43.73059321	-79.73452406
518	Amur maple	*Acer ginnala*	1	6	10.8	2.7	Fair	Poor	Fair	Good	Injure	Noise Wall	City of Brampton	43.73056954	-79.73454688
519	Norway spruce	*Picea abies*	1	1	33.3	3.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73056322	-79.7345236
520	Blue spruce	*Picea pungens*	1	1	18.5	1.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73054339	-79.73452537
521	Blue spruce	*Picea pungens*	1	1	17.5	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73050601	-79.73454806
522	Blue spruce	*Picea pungens*	1	1	12.7	1.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7305024	-79.73457387
523	Blue spruce	*Picea pungens*	1	1	23.6	2.4	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73048692	-79.73459535
524	Amur maple	*Acer ginnala*	1	4	13.5	2.7	Fair	Fair	Good	Good	Protect	Noise Wall	City of Brampton	43.7305257	-79.73458266
525	Amur maple	*Acer ginnala*	1	3	15	2.6	Fair	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.73051215	-79.73462471
526	Amur maple	*Acer ginnala*	1	6	14	3.4	Fair	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.73050311	-79.73463628
527	Amur maple	*Acer ginnala*	1	4	13	2.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73049378	-79.73464917
528	Amur maple	*Acer ginnala*	1	1	15	1.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73048031	-79.73466879
529	Amur maple	*Acer ginnala*	1	3	15	2.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.73042542	-79.73474585
530	Amur maple	*Acer ginnala*	1	5	13	2.9	Good	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.73041316	-79.73475896
531	Apple species	*Malus sp*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.73037555	-79.7347361

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
532	Willow species	*Salix sp*	1	1	25.8	2.6	Fair	Fair	Good	Fair	Protect	Noise Wall	City of Brampton	43.73036581	-79.73479431
533	Willow species	*Salix sp*	1	5	25	5.6	Fair	Fair	Good	Fair	Injure	Noise Wall	City of Brampton	43.73037698	-79.73481426
534	Willow species	*Salix sp*	1	5	20.5	4.6	Fair	Fair	Good	Fair	Injure	Noise Wall	City of Brampton	43.73033602	-79.73482462
535	White spruce	*Picea glauca*	1	2	10.8	1.5	Fair	Fair	Fair	Fair	Protect	Noise Wall	City of Brampton	43.73033043	-79.7348363
536	Willow species	*Salix sp*	1	1	25	2.5	Fair	Fair	Good	Fair	Injure	Noise Wall	City of Brampton	43.73033979	-79.73485719
537	Norway maple	*Acer platanoides*	1	3	28.5	4.9	Fair	Fair	Fair	Good	Protect	Noise Wall	City of Brampton Park	43.73034535	-79.73502109
538	Austrian pine	*Pinus nigra*	1	1	43.5	4.4	Good	Good	Good	Good	Retain		City of Brampton Park	43.73029596	-79.73515321
539	Austrian pine	*Pinus nigra*	1	1	30	3.0	Fair	Fair	Good	Fair	Retain		City of Brampton Park	43.73024996	-79.73512497
540	Austrian pine	*Pinus nigra*	1	1	36.7	3.7	Fair	Good	Good	Fair	Retain		City of Brampton Park	43.73025204	-79.73523653
541	Austrian pine	*Pinus nigra*	1	1	35	3.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.73021631	-79.73524196
542	Mountain-ash	*Sorbus sp*	1	5	7	1.6	Good	Good	Good	Good	Retain		City of Brampton Park	43.72978289	-79.73589297
543	Manitoba maple	*Acer negundo*	1	1	8.5	0.9	Good	Good	Good	Good	Protect	Woodland Protectior	City of Brampton Park	43.72963338	-79.7359854
544	White ash	*Fraxinus americana*	1	1	7	0.7	Fair	Fair	Good	Fair	Protect	Woodland Protectior	City of Brampton Park	43.72964074	-79.73599777
545	Speckled alder	*Alnus incana*	1	2	10	1.4	Good	Good	Good	Good	Protect	Woodland Protectior	City of Brampton Park	43.72964798	-79.73598701
546	Manitoba maple	*Acer negundo*	1	1	15	1.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72970311	-79.7360601
547	Manitoba maple	*Acer negundo*	1	1	15	1.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72969248	-79.73611111
548	Manitoba maple	*Acer negundo*	1	1	25	2.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72970194	-79.73620072
549	Manitoba maple	*Acer negundo*	1	1	18	1.8	Good	Good	Good	Good	Retain		City of Brampton Park	43.72961356	-79.73628353
550	Austrian pine	*Pinus nigra*	1	1	42.3	4.2	Good	Good	Good	Good	Retain		City of Brampton Park	43.7292174	-79.73701605
551	Austrian pine	*Pinus nigra*	1	1	45	4.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72928096	-79.73696164
552	Austrian pine	*Pinus nigra*	1	1	45	4.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72920204	-79.7370561
553	Blue spruce	*Picea pungens*	1	1	32.3	3.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72913242	-79.73727292
554	Blue spruce	*Picea pungens*	1	2	35.5	5.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7291161	-79.73729542
555	Blue spruce	*Picea pungens*	1	1	34.7	3.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72909432	-79.73730387
556	Blue spruce	*Picea pungens*	1	1	37	3.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72912983	-79.73730149
557	Blue spruce	*Picea pungens*	1	1	35	3.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72915027	-79.73728114
558	Norway maple	*Acer platanoides*	1	1	36	3.6	Good	Good	Fair	Good	Remove	Noise Wall	City of Brampton	43.72901185	-79.7373386
559	Willow species	*Salix sp*	1	1	29	2.9	Fair	Fair	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72896924	-79.73744475
560	Norway maple	*Acer platanoides*	1	1	23	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72900631	-79.73744699
561	Norway maple	*Acer platanoides*	1	1	20.4	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72899811	-79.73744832
562	Norway maple	*Acer platanoides*	1	1	9.3	0.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72899911	-79.73745049
563	European buckthorn	*Rhamnus cathartica*	1	3	13	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72898485	-79.73745264
564	Crabapple species	*Malus sp*	1	1	10	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72856439	-79.7370239
565	White spruce	*Picea glauca*	1	1	35.3	3.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72875857	-79.73695314
566	White spruce	*Picea glauca*	1	1	35	3.5	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.7287493	-79.73691839
567	White spruce	*Picea glauca*	1	1	31.4	3.1	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72877236	-79.73688935
568	White spruce	*Picea glauca*	1	1	44.8	4.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72879858	-79.73684289
569	Norway spruce	*Picea abies*	1	1	24.3	2.4	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72877977	-79.73690849
570	Greenspire linden	*Tilia cordata*	1	1	5.5	0.6	Good	Good	Good	Good	Retain		City of Brampton Park	43.72886299	-79.73654283
571	Honey locust	*Gleditsia triacanthos*	1	1	5	0.5	Fair	Good	Good	Fair	Retain		City of Brampton Park	43.72891185	-79.7364417
572	Greenspire linden	*Tilia cordata*	1	1	5	0.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72896596	-79.73634038
573	Honey locust	*Gleditsia triacanthos*	1	1	5	0.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72901704	-79.73624248
574	Greenspire linden	*Tilia cordata*	1	1	5	0.5	Good	Good	Good	Good	Retain		City of Brampton Park	43.72906795	-79.73615445
575	Manitoba maple	*Acer negundo*	1	2	13	1.8	Good	Good	Good	Good	Protect	Woodland Protectior	City of Brampton Park	43.72932373	-79.73575575
576	Eastern cottonwood	*Populus deltoides*	1	1	24.2	2.4	Good	Good	Good	Good	Protect	Woodland Protectior	City of Brampton Park	43.72934885	-79.73572793
577	Manitoba maple	*Acer negundo*	1	1	9	0.9	Good	Good	Good	Good	Protect	Woodland Protectior	City of Brampton Park	43.7293967	-79.73574983
578	Honey locust	*Gleditsia triacanthos*	1	1	31	3.1	Good	Good	Good	Good	Protect	MUP	City of Brampton Park	43.72949803	-79.73551673
579	Honey locust	*Gleditsia triacanthos*	1	1	36.3	3.6	Good	Good	Good	Good	Injure	MUP	City of Brampton Park	43.72955858	-79.73542519
580	Honey locust	*Gleditsia triacanthos*	1	1	32.5	3.3	Good	Good	Good	Good	Protect	MUP	City of Brampton Park	43.72957269	-79.7353621
581	Austrian pine	*Pinus nigra*	1	1	48	4.8	Good	Good	Good	Good	Injure	MUP	City of Brampton Park	43.72969291	-79.73512843
582	Austrian pine	*Pinus nigra*	1	1	41.7	4.2	Good	Good	Good	Good	Protect	Grading	City of Brampton Park	43.72970346	-79.73505164
583	Austrian pine	*Pinus nigra*	1	1	44.9	4.5	Good	Good	Good	Good	Protect	Grading	City of Brampton Park	43.72974358	-79.73499762
584	Austrian pine	*Pinus nigra*	1	1	40	4.0	Good	Good	Good	Good	Protect	Grading	City of Brampton Park	43.72974025	-79.73496655
585	Norway maple	*Acer platanoides*	1	1	21.8	2.2	Fair	Fair	Good	Fair	Remove	MUP	Private	43.73074962	-79.73369269
586	Hackberry	*Celtis occidentalis*	1	1	8	0.8	Good	Good	Good	Good	Injure	Grading	Private	43.73160845	-79.73268969
587	Hackberry	*Celtis occidentalis*	1	1	6	0.6	Good	Good	Good	Good	Protect	Grading	Private	43.731726	-79.73254688
588	Austrian pine	*Pinus nigra*	1	1	30.1	3.0	Good	Good	Good	Fair	Injure	MUP	Private	43.73185127	-79.73239727
589	Norway maple	*Acer platanoides*	1	1	20.5	2.1	Good	Good	Good	Fair	Injure	MUP	Private	43.73225494	-79.7319461
590	Norway maple	*Acer platanoides*	1	1	27.3	2.7	Good	Good	Good	Fair	Injure	MUP	Private	43.73232618	-79.73186062

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
591	Norway maple	*Acer platanoides*	1	1	12	1.2	Good	Good	Good	Good	Injure	MUP	Private	43.73255019	-79.73160444
592	Austrian pine	*Pinus nigra*	1	1	31.8	3.2	Good	Good	Good	Good	Remove	MUP	Private	43.73288486	-79.73121628
593	Honey locust	*Gleditsia triacanthos*	1	1	30	3.0	Good	Good	Good	Good	Retain		Private	43.72503782	-79.74230534
594	Honey locust	*Gleditsia triacanthos*	1	1	30	3.0	Good	Good	Good	Good	Retain		Private	43.72503992	-79.74218864
595	Horse chestnut	*Aesculus hippocastanum*	1	1	48.3	4.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72518557	-79.7414905
596	Austrian pine	*Pinus nigra*	1	1	37	3.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72521712	-79.74154321
597	Austrian pine	*Pinus nigra*	1	1	35.5	3.6	Fair	Fair	Fair	Fair	Protect	Noise Wall	City of Brampton	43.72523718	-79.74156364
598	Austrian pine	*Pinus nigra*	1	1	24.6	2.5	Good	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.72523386	-79.74158959
599	Austrian pine	*Pinus nigra*	1	1	33.8	3.4	Good	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.72524734	-79.74159363
600	Apple species	*Malus sp*	1	1	19.4	1.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72525416	-79.74161764
601	Apple species	*Malus sp*	1	1	27.8	2.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72527289	-79.74162901
602	Austrian pine	*Pinus nigra*	1	1	31	3.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72541715	-79.74167246
603	Austrian pine	*Pinus nigra*	1	1	22	2.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72544861	-79.74166874
604	Austrian pine	*Pinus nigra*	1	1	26.1	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72544273	-79.74169497
605	Austrian pine	*Pinus nigra*	1	1	27.6	2.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72546465	-79.74169352
606	Austrian pine	*Pinus nigra*	1	1	30.7	3.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72547728	-79.741666
607	Apple species	*Malus sp*	1	1	17.8	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72565728	-79.74157668
608	Apple species	*Malus sp*	1	1	29.1	2.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72567664	-79.74156063
609	White spruce	*Picea glauca*	1	1	19.4	1.9	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72567348	-79.74152065
610	White spruce	*Picea glauca*	1	1	23.4	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72569771	-79.74150078
611	White spruce	*Picea glauca*	1	1	29.5	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72570058	-79.74145201
612	Willow species	*Salix sp*	1	1	28.3	2.8	Fair	Fair	Good	Fair	Injure	Noise Wall	City of Brampton	43.72566838	-79.74145361
613	Willow species	*Salix sp*	1	1	21.7	2.2	Fair	Fair	Good	Fair	Protect	Noise Wall	City of Brampton	43.72573105	-79.74137435
614	Willow species	*Salix sp*	1	1	18.4	1.8	Fair	Fair	Good	Fair	Protect	Noise Wall	City of Brampton	43.72573899	-79.74135045
615	Willow species	*Salix sp*	1	1	28.1	2.8	Fair	Good	Good	Fair	Injure	Noise Wall	City of Brampton	43.7257557	-79.7413301
616	Manitoba maple	*Acer negundo*	1	1	27.2	2.7	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72575989	-79.74131897
617	Willow species	*Salix sp*	1	1	30	3.0	Fair	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.72577759	-79.74130381
618	Norway spruce	*Picea abies*	1	1	48	4.8	Good	Good	Good	Good	Protect	Grading	City of Brampton	43.72582402	-79.74132071
619	White spruce	*Picea glauca*	1	1	21.5	2.2	Good	Good	Good	Good	Protect	Grading	City of Brampton	43.72581895	-79.74129692
620	White spruce	*Picea glauca*	1	1	22.7	2.3	Good	Good	Good	Good	Protect	Grading	City of Brampton	43.7258427	-79.74128303
621	Apple species	*Malus sp*	1	1	20	2.0	Good	Good	Good	Good	Protect	Grading	City of Brampton	43.72586087	-79.74126516
622	Willow species	*Salix sp*	1	1	27.3	2.7	Good	Good	Good	Fair	Injure	Noise Wall	City of Brampton	43.72592587	-79.74109523
623	Norway maple	*Acer platanoides*	1	1	31	3.1	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72596148	-79.74104559
624	Austrian pine	*Pinus nigra*	1	1	29.3	2.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72614	-79.74088296
625	Austrian pine	*Pinus nigra*	1	1	30.4	3.0	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72614602	-79.74085878
626	Austrian pine	*Pinus nigra*	1	1	35.6	3.6	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72614035	-79.74082829
627	Austrian pine	*Pinus nigra*	1	1	35	3.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72618539	-79.74080055
628	Silver maple	*Acer saccharinum*	1	2	40	5.7	Good	Good	Good	Good	Remove	Noise Wall	Private	43.72613678	-79.74073208
629	Apple species	*Malus sp*	1	1	19	1.9	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72619942	-79.74076582
630	Apple species	*Malus sp*	1	1	25.7	2.6	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72620168	-79.74074519
631	Apple species	*Malus sp*	1	1	22.1	2.2	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72622161	-79.74074347
632	Balsam fir	*Abies balsamea*	1	1	11	1.1	Good	Good	Good	Fair	Protect	MUP	City of Brampton	43.72621273	-79.74069621
633	Balsam fir	*Abies balsamea*	1	1	11	1.1	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72621725	-79.74067225
634	Red oak	*Quercus rubra*	1	1	28.8	2.9	Fair	Fair	Good	Fair	Protect	MUP	City of Brampton	43.72632823	-79.74057339
635	Red oak	*Quercus rubra*	1	1	18.5	1.9	Fair	Poor	Good	Fair	Remove	MUP	City of Brampton	43.7263847	-79.74054911
636	Norway maple	*Acer platanoides*	1	1	10.7	1.1	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72634635	-79.74050094
637	Red oak	*Quercus rubra*	1	1	44.4	4.4	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72638934	-79.74048157
638	Austrian pine	*Pinus nigra*	1	1	41.9	4.2	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72645995	-79.74040344
639	Austrian pine	*Pinus nigra*	1	1	39.1	3.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72648326	-79.74040177
640	Austrian pine	*Pinus nigra*	1	1	24	2.4	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72650673	-79.74032933
641	Austrian pine	*Pinus nigra*	1	1	26.8	2.7	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72652242	-79.74034877
642	Norway maple	*Acer platanoides*	1	3	9	1.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72646141	-79.74034796
643	Norway maple	*Acer platanoides*	1	1	40	4.0	Good	Good	Good	Good	Remove	Noise Wall	Private	43.72647438	-79.74025377
644	Norway maple	*Acer platanoides*	1	1	12	1.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72654769	-79.74019088
645	Norway maple	*Acer platanoides*	1	2	16.3	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72660389	-79.7401438
646	Norway maple	*Acer platanoides*	1	1	32.7	3.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72664669	-79.74009126
647	Willow species	*Salix sp*	1	1	22.6	2.3	Fair	Fair	Fair	Fair	Injure	Noise Wall	City of Brampton	43.72664831	-79.7400603
648	Apple species	*Malus sp*	1	1	30	3.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72672231	-79.74004231
649	Apple species	*Malus sp*	1	1	15	1.5	Fair	Fair	Good	Good	Remove	MUP	City of Brampton	43.72673937	-79.74002118

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
650	Norway spruce	*Picea abies*	1	1	23.5	2.4	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72676462	-79.73997249
651	Norway maple	*Acer platanoides*	1	1	20.8	2.1	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton	43.72674933	-79.73995039
652	European Buckthorn	*Rhamnus cathartica*	1	1	13	1.3	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton	43.72675369	-79.73994286
653	Norway spruce	*Picea abies*	1	1	18.9	1.9	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72682563	-79.7399076
654	White spruce	*Picea glauca*	1	1	28	2.8	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton	43.72683195	-79.73985345
655	Norway spruce	*Picea abies*	1	1	20.8	2.1	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton	43.72685188	-79.73984067
656	White spruce	*Picea glauca*	1	1	23.8	2.4	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton	43.72685799	-79.7398101
657	European Buckthorn	*Rhamnus cathartica*	1	1	15	1.5	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton	43.72681981	-79.73982722
658	Apple species	*Malus sp*	1	1	17	1.7	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72681979	-79.73980706
659	Norway maple	*Acer platanoides*	1	1	9.2	0.9	Good	Good	Good	Good	Protect	MUP, Noise Wall	City of Brampton	43.72686032	-79.73977725
660	White spruce	*Picea glauca*	1	2	40	5.7	Good	Good	Good	Good	Injure	Noise Wall	Private	43.72684182	-79.73969799
661	Apple species	*Malus sp*	1	1	7.2	0.7	Good	Fair	Good	Good	Protect	Noise Wall	City of Brampton	43.72688024	-79.73954394
662	Ohio buckeye	*Aesculus glabra*	1	1	9.5	1.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72700527	-79.73949311
663	Willow species	*Salix sp*	1	1	25	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72709303	-79.73943699
664	Willow species	*Salix sp*	1	1	25	2.5	Fair	Fair	Fair	Fair	Protect	Noise Wall	City of Brampton	43.7271461	-79.73936077
665	Willow species	*Salix sp*	1	1	20	2.0	Fair	Fair	Fair	Fair	Protect	Noise Wall	City of Brampton	43.72720622	-79.73928094
666	Willow species	*Salix sp*	1	1	20	2.0	Fair	Fair	Fair	Fair	Protect	Noise Wall	City of Brampton	43.72726769	-79.73917644
667	Apple species	*Malus sp*	1	1	25	2.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.7273305	-79.73917733
668	Amur maple	*Acer ginnala*	1	5	13	2.9	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7273769	-79.73900568
669	White ash	*Fraxinus americana*	1	1	12.6	1.3	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72745282	-79.73894431
670	White spruce	*Picea glauca*	1	1	25	2.5	Fair	Good	Good	Fair	Remove	MUP	City of Brampton	43.72749423	-79.73893609
671	White spruce	*Picea glauca*	1	2	17.5	2.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72752105	-79.73889824
672	White spruce	*Picea glauca*	1	1	30.5	3.1	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72753639	-79.73884479
673	White spruce	*Picea glauca*	1	1	27.5	2.8	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72756144	-79.73884448
674	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72762389	-79.73864793
675	Austrian pine	*Pinus nigra*	1	1	33	3.3	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72769979	-79.73867133
676	Austrian pine	*Pinus nigra*	1	1	23	2.3	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72770477	-79.73864292
677	Austrian pine	*Pinus nigra*	1	1	28.2	2.8	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72771748	-79.73862596
678	Austrian pine	*Pinus nigra*	1	1	23.5	2.4	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72772744	-79.7386514
679	Austrian pine	*Pinus nigra*	1	1	25	2.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72774777	-79.7386128
680	Apple species	*Malus sp*	1	1	20	2.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72776933	-79.73857783
681	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72781472	-79.73837838
682	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72787445	-79.73834446
683	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72791654	-79.73828294
684	European Buckthorn	*Rhamnus cathartica*	1	1	15	1.5	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.7279203	-79.738258
685	Austrian pine	*Pinus nigra*	1	1	26.8	2.7	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72801473	-79.73823257
686	Austrian pine	*Pinus nigra*	1	1	20	2.0	Good	Good	Good	Good	Protect	MUP	City of Brampton	43.72800752	-79.73818311
687	Austrian pine	*Pinus nigra*	1	1	30	3.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72804106	-79.73816516
688	Apple species	*Malus sp*	1	1	18	1.8	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72806884	-79.73815234
689	Apple species	*Malus sp*	1	1	18	1.8	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72809125	-79.73814012
690	Austrian pine	*Pinus nigra*	1	1	29.7	3.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72809695	-79.73808204
691	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72810331	-79.73797005
692	Ash species	*Fraxinus sp*	1	1	13	1.3	Poor	Poor	Good	Poor	Protect	MUP	City of Brampton	43.72814792	-79.73798715
693	Norway spruce	*Picea abies*	1	1	31.4	3.1	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72821186	-79.73790367
694	Norway spruce	*Picea abies*	1	1	25	2.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72825387	-79.73786021
695	Norway spruce	*Picea abies*	1	1	20	2.0	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72825738	-79.73788937
696	Norway spruce	*Picea abies*	1	1	25.4	2.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72828509	-79.73784033
697	Norway spruce	*Picea abies*	1	1	26.5	2.7	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72840496	-79.7375828
698	Norway spruce	*Picea abies*	1	1	22	2.2	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72842536	-79.7375662
699	Norway spruce	*Picea abies*	1	1	26	2.6	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72841726	-79.73754707
700	White spruce	*Picea glauca*	1	1	32.3	3.2	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72843282	-79.73753181
701	Apple species	*Malus sp*	1	1	25.5	2.6	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.728452	-79.73749193
702	Austrian pine	*Pinus nigra*	1	1	37.8	3.8	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72889335	-79.73752598
703	Willow species	*Salix sp*	1	1	25	2.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7289119	-79.73754706
704	Willow species	*Salix sp*	1	1	26.8	2.7	Fair	Good	Fair	Fair	Remove	Noise Wall	City of Brampton	43.7289055	-79.73755832
705	Austrian pine	*Pinus nigra*	1	1	32	3.2	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72885824	-79.73756767
706	Norway maple	*Acer platanoides*	1	1	11.5	1.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72887361	-79.73761354
707	Willow species	*Salix sp*	1	1	14	1.4	Good	Good	Good	Fair	Remove	Noise Wall	City of Brampton	43.72886492	-79.73762301
708	Willow species	*Salix sp*	1	1	20	2.0	Fair	Poor	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72884083	-79.7376511

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
709	Horse chestnut	*Aesculus hippocastanum*	1	1	42.3	4.2	Good	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.72877395	-79.73774666
710	Horse chestnut	*Aesculus hippocastanum*	1	1	40.1	4.0	Good	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.72876338	-79.73781211
711	Horse chestnut	*Aesculus hippocastanum*	1	1	27	2.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72871581	-79.73780718
712	Horse chestnut	*Aesculus hippocastanum*	1	1	33.5	3.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72873198	-79.73786431
713	Horse chestnut	*Aesculus hippocastanum*	1	1	36.2	3.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72868981	-79.73788735
714	Manitoba maple	*Acer negundo*	1	3	28.7	5.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72870097	-79.73793202
715	Norway maple	*Acer platanoides*	1	1	14	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72870635	-79.73793381
716	Norway maple	*Acer platanoides*	1	1	13.2	1.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72869255	-79.7379583
717	Norway maple	*Acer platanoides*	1	1	13	1.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72867877	-79.73798001
718	Hawthorn species	*Crataegus sp*	1	1	11	1.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72867532	-79.73799527
719	Norway maple	*Acer platanoides*	1	1	12	1.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72865668	-79.73801851
720	Eastern white cedar	*Thuja occidentalis*	1	1	15	1.5	Good	Good	Good	Good	Retain	Noise Wall	Private	43.72865095	-79.73806121
721	Norway maple	*Acer platanoides*	1	3	12	2.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72857514	-79.73816586
722	Apple species	*Malus sp*	1	1	18	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72853731	-79.73815307
723	Apple species	*Malus sp*	1	1	18	1.8	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7285444	-79.73818425
724	Austrian pine	*Pinus nigra*	1	1	29.7	3.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72851302	-79.73820596
725	Red oak	*Quercus rubra*	1	2	11	1.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72849378	-79.73819003
726	Norway maple	*Acer platanoides*	1	3	9.6	1.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72851215	-79.73820753
727	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72851236	-79.73825952
728	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72850219	-79.73827158
729	Austrian pine	*Pinus nigra*	1	1	30.5	3.1	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.728496	-79.73823242
730	Austrian pine	*Pinus nigra*	1	1	25.3	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72847599	-79.73821808
731	Austrian pine	*Pinus nigra*	1	1	41	4.1	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72844755	-79.73825271
732	Austrian pine	*Pinus nigra*	1	1	30	3.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72846954	-79.73825985
733	Norway maple	*Acer platanoides*	1	1	13	1.3	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72846749	-79.73830214
734	Norway maple	*Acer platanoides*	1	2	18	2.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72840355	-79.73839301
735	Blue spruce	*Picea pungens*	1	1	20	2.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72834277	-79.73847402
736	Blue spruce	*Picea pungens*	1	1	30	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72829685	-79.73847699
737	Norway maple	*Acer platanoides*	1	1	27.3	2.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72826839	-79.73853582
738	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72823061	-79.73858623
739	European Buckthorn	*Rhamnus cathartica*	1	6	15	3.7	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72825112	-79.73860759
740	Norway maple	*Acer platanoides*	1	1	20	2.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72822272	-79.73867764
741	Norway maple	*Acer platanoides*	1	1	18	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72818658	-79.73867709
742	Norway maple	*Acer platanoides*	1	1	15	1.5	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72819452	-79.73871431
743	Blue spruce	*Picea pungens*	1	1	25	2.5	Fair	Good	Good	Fair	Protect	Noise Wall	City of Brampton	43.72813745	-79.73870661
744	Blue spruce	*Picea pungens*	1	1	25	2.5	Fair	Good	Good	Fair	Injure	MUP	City of Brampton	43.72809994	-79.73873559
745	Blue spruce	*Picea pungens*	1	1	30	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72810058	-79.73877373
746	Blue spruce	*Picea pungens*	1	1	25	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72808998	-79.73880421
747	Blue spruce	*Picea pungens*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72807172	-79.73880457
748	Apple species	*Malus sp*	1	1	15	1.5	Fair	Fair	Fair	Good	Protect	Noise Wall	City of Brampton	43.72804928	-79.73882657
749	Apple species	*Malus sp*	1	3	15	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72804667	-79.73885798
750	Apple species	*Malus sp*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72802598	-79.73887464
751	Willow species	*Salix sp*	1	1	20	2.0	Fair	Fair	Fair	Good	Remove	Noise Wall	City of Brampton	43.72796565	-79.73903747
752	Mulberry species	*Morus sp*	1	3	8	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72792747	-79.73907327
753	Austrian pine	*Pinus nigra*	1	1	33.6	3.4	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72780155	-79.73916499
754	Austrian pine	*Pinus nigra*	1	1	20	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72779092	-79.73921954
755	Austrian pine	*Pinus nigra*	1	1	25	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72776988	-79.73923416
756	Austrian pine	*Pinus nigra*	1	1	20	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72775379	-79.7392538
757	Apple species	*Malus sp*	1	1	15	1.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72772844	-79.73930043
758	Willow species	*Salix sp*	1	2	14	2.0	Fair	Fair	Fair	Fair	Remove	Noise Wall	City of Brampton	43.7277185	-79.73938435
759	Willow species	*Salix sp*	1	1	18	1.8	Fair	Fair	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72767673	-79.7394433
760	Willow species	*Salix sp*	1	2	15	2.1	Fair	Fair	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72767237	-79.73945281
761	Willow species	*Salix sp*	1	1	20	2.0	Fair	Fair	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72766083	-79.73946261
762	Willow species	*Salix sp*	1	1	20	2.0	Fair	Poor	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72765276	-79.73948177
763	Willow species	*Salix sp*	1	2	18	2.6	Fair	Poor	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72764936	-79.73949025
764	Blue spruce	*Picea pungens*	1	1	22.7	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72763959	-79.73944237
765	Blue spruce	*Picea pungens*	1	1	25	2.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72763223	-79.73946479
766	Blue spruce	*Picea pungens*	1	1	30	3.0	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72760154	-79.73946401
767	Sugar maple	*Acer saccharum*	1	1	25.8	2.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72758942	-79.73952285

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
768	Mulberry species	*Morus sp*	1	2	11.4	1.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72757849	-79.73954039
769	Sugar maple	*Acer saccharum*	1	1	20.3	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72755753	-79.73956993
770	Ash species	*Fraxinus sp*	1	1	6	0.6	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72752415	-79.73965355
771	Apple species	*Malus sp*	1	2	22	3.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72743926	-79.73972186
772	Apple species	*Malus sp*	1	1	18	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72742715	-79.73971993
773	Apple species	*Malus sp*	1	2	14.8	2.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72741262	-79.73974046
774	Austrian pine	*Pinus nigra*	1	1	29	2.9	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72743532	-79.73974622
775	Austrian pine	*Pinus nigra*	1	1	35.9	3.6	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72740489	-79.7397745
776	Austrian pine	*Pinus nigra*	1	1	29.3	2.9	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.7273975	-79.73979484
777	Austrian pine	*Pinus nigra*	1	1	27	2.7	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72737126	-79.73984169
778	Austrian pine	*Pinus nigra*	1	1	26.9	2.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72735331	-79.73984522
779	Norway maple	*Acer platanoides*	1	1	29.9	3.0	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72728496	-79.74000297
780	Horse chestnut	*Aesculus hippocastanum*	1	1	20	2.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72718802	-79.74010866
781	Horse chestnut	*Aesculus hippocastanum*	1	1	34.5	3.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72713711	-79.74012993
782	Blue spruce	*Picea pungens*	1	1	35	3.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72709416	-79.74018724
783	Blue spruce	*Picea pungens*	1	1	25	2.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72704348	-79.7402145
784	Blue spruce	*Picea pungens*	1	1	45	4.5	Good	Good	Good	Good	Injure	MUP, Noise Wall	City of Brampton	43.72704507	-79.74024945
785	Blue spruce	*Picea pungens*	1	1	35	3.5	Good	Good	Good	Good	Remove	MUP	City of Brampton	43.72694394	-79.74035496
786	Norway maple	*Acer platanoides*	1	1	32	3.2	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72697688	-79.74041909
787	Blue spruce	*Picea pungens*	1	1	31	3.1	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72693743	-79.74042771
788	Blue spruce	*Picea pungens*	1	1	35	3.5	Good	Good	Good	Good	Injure	MUP	City of Brampton	43.72690076	-79.74044128
789	Norway maple	*Acer platanoides*	1	1	37.6	3.8	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.7269361	-79.74050259
790	Norway maple	*Acer platanoides*	1	1	14.2	1.4	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72693532	-79.74049282
791	Silver maple	*Acer saccharinum*	1	3	25	4.3	Good	Good	Good	Good	Injure	Noise Wall	Private	43.72685169	-79.74064271
792	Freeman's maple	*Acer x freemanii*	1	7	17	4.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72679255	-79.74064465
793	Apple species	*Malus sp*	1	1	17	1.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7267404	-79.74070126
794	Austrian pine	*Pinus nigra*	1	1	20	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72673097	-79.74073347
795	Silver maple	*Acer saccharinum*	1	2	30	4.2	Good	Good	Good	Good	Injure	Noise Wall	Private	43.72676518	-79.74076891
796	Austrian pine	*Pinus nigra*	1	1	25	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72670916	-79.7407599
797	Austrian pine	*Pinus nigra*	1	1	20	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.7267003	-79.7407786
798	Austrian pine	*Pinus nigra*	1	1	35	3.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72667889	-79.74078183
799	Willow species	*Salix sp*	1	1	25	2.5	Fair	Fair	Good	Fair	Remove	Noise Wall	City of Brampton	43.7266844	-79.74085518
800	Willow species	*Salix sp*	1	1	20	2.0	Fair	Fair	Good	Fair	Remove	Noise Wall	City of Brampton	43.72657907	-79.74100781
801	Blue spruce	*Picea pungens*	1	1	30	3.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72648624	-79.74107683
802	Austrian pine	*Pinus nigra*	1	1	40.2	4.0	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72643239	-79.74115368
803	Austrian pine	*Pinus nigra*	1	1	25	2.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72639382	-79.74116506
804	Austrian pine	*Pinus nigra*	1	1	38.3	3.8	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72641827	-79.7411953
805	Austrian pine	*Pinus nigra*	1	1	35	3.5	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72638359	-79.74121281
806	Willow species	*Salix sp*	1	1	15.8	1.6	Fair	Fair	Fair	Fair	Remove	Noise Wall	City of Brampton	43.72632663	-79.74135988
807	Apple species	*Malus sp*	1	1	17	1.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72625531	-79.74137635
808	Austrian pine	*Pinus nigra*	1	1	28	2.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72624375	-79.74142551
809	Austrian pine	*Pinus nigra*	1	1	25.5	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72621023	-79.74141285
810	Austrian pine	*Pinus nigra*	1	1	27.4	2.7	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72619031	-79.74146555
811	Norway maple	*Acer platanoides*	1	2	12.7	1.8	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72621857	-79.74150455
812	Norway maple	*Acer platanoides*	1	1	11	1.1	Good	Good	Good	Good	Remove	Noise Wall	City of Brampton	43.72621422	-79.74152323
813	Norway maple	*Acer platanoides*	1	2	13	1.8	Fair	Poor	Good	Good	Remove	Noise Wall	City of Brampton	43.72619888	-79.74153913
814	Apple species	*Malus sp*	1	1	14.8	1.5	Fair	Fair	Fair	Good	Protect	Noise Wall	City of Brampton	43.72600725	-79.74172215
815	Apple species	*Malus sp*	1	1	17.8	1.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72600587	-79.74174387
816	Blue spruce	*Picea pungens*	1	1	33.2	3.3	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72599807	-79.74178348
817	Blue spruce	*Picea pungens*	1	1	29.2	2.9	Fair	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.72596526	-79.74182463
818	Blue spruce	*Picea pungens*	1	1	20	2.0	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72594159	-79.74182099
819	Blue spruce	*Picea pungens*	1	1	35	3.5	Fair	Fair	Good	Good	Injure	Noise Wall	City of Brampton	43.72593371	-79.74184232
820	Horse chestnut	*Aesculus hippocastanum*	1	1	23	2.3	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72589355	-79.74186973
821	Horse chestnut	*Aesculus hippocastanum*	1	1	28	2.8	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.72586987	-79.74193466
822	Austrian pine	*Pinus nigra*	1	1	26	2.6	Good	Good	Good	Good	Protect	Noise Wall	City of Brampton	43.725807	-79.74204312
823	Austrian pine	*Pinus nigra*	1	1	24.5	2.5	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72583399	-79.74218433
824	Austrian pine	*Pinus nigra*	1	1	29.1	2.9	Good	Fair	Good	Good	Remove	Noise Wall	City of Brampton	43.72584206	-79.74222857
825	Austrian pine	*Pinus nigra*	1	1	28	2.8	Good	Good	Good	Good	Injure	Noise Wall	City of Brampton	43.72582506	-79.74220759
826	Austrian pine	*Pinus nigra*	1	1	34.8	3.5	Good	Good	Good	Good	Retain	West of Dixie	City of Brampton	43.72544317	-79.74265188

Tree ID	Common Name	*Botanical Name*	Number of Trees	Number of Stems	DBH (cm)	CRZ (m)	Overall Health	Trunk Integrity	Canopy Structure	Crown Vigor	Action	Reason	Ownership	Latitude	Longitude
827	Austrian pine	*Pinus nigra*	1	1	38.1	3.8	Good	Good	Good	Good	Retain	West of Dixie	City of Brampton	43.72540213	-79.74268
828	Austrian pine	*Pinus nigra*	1	1	38	3.8	Good	Good	Good	Good	Retain	West of Dixie	City of Brampton	43.72537152	-79.74268059
829	Honey locust	*Gleditsia triacanthos*	1	1	17	1.7	Good	Good	Good	Good	Retain		Private	43.74410002	-79.7194413
830	Honey locust	*Gleditsia triacanthos*	1	1	20	2.0	Good	Good	Good	Good	Retain		Private	43.74414602	-79.71950491
831	Honey locust	*Gleditsia triacanthos*	1	1	27.5	2.8	Good	Good	Good	Good	Retain		Private	43.744188	-79.71955922
832	Honey locust	*Gleditsia triacanthos*	1	1	20.7	2.1	Good	Good	Good	Good	Retain		Private	43.74423204	-79.71961648
833	White spruce	*Picea glauca*	1	1	20	2.0	Good	Good	Good	Good	Retain		Private	43.74425533	-79.71967763
834	White spruce	*Picea glauca*	1	1	23	2.3	Good	Good	Good	Good	Retain		Private	43.74428881	-79.71965336

APPENDIX E
(FISHERIES FIELD FORMS)

Ministry of Transportation

Ontario

WATERCOURSE FIELD COLLECTION FORM

GENERAL INFORMATION

Project #	Project Description:	Date:
478286	City of Brampton Williams Pkwy	Aug 3/22

Is Stream Realignment required for this section:

○ Yes ● No ○ Unknown

Collectors:	Time Started:	Time Finished:
B. MacVeigh, J. Palombo	9:45	10:30

Weather Conditions: Partly Cloudy, warm, slight breeze

Air Temp (°C):	Water Temp (°C):	Conductivity (µS/cm):	Velocity (m/s):
23°	20.4	0.153	—

Photos Numbers And Descriptions:

LOCATION

Name of Waterbody:	Drainage System:	Crossing #:	Station #:
Mimico Creek	Lake Ontario	—	—

Location Of Crossing: Williams Pkwy Crossing, City

GPS Coordinates:	MTO Chainage:
43.729680 -79.736092	—
Township: City of Brampton	**MNRF District:** Aurora

LAND USE AND POLLUTION

Surrounding Land Use: Residential, Parkland, Public trails	Sources of Pollution:

EXISTING STRUCTURE TYPE

Bridge	Box Culvert	Open Foot Culvert	CSP	N/A
●	○	○	○	●

Other ○ (Describe) Bridge + trail crossing	Size: (w x h) m²

SECTION TYPE AND MORPHOLOGY

Section (Reach) Identifier: 4/5	Section Location: (Include On Habitat Map)
Associated Wetland: No	

Stream / River	Channelized	Permanent	Intermittent	Ephemeral
●	○	●	○	○

Total Section (Reach) Length (m):

Sub Sections:	Run ●	Pool ○	Riffle ●	Flats ●	Culvert ○	Other ○
Percentage of Area:	25	10	65			
Mean wetted depth (m)	0.32	0.7	0.13			
Mean wetted width (m)	5.0	5.0	2.87			
Mean bankfull depth (m)	0.85	1.15	0.58			
Mean bankfull width (m)	6.5	6.5	4.81			
Substrate (type & %)	Bo, Co, Gr, Sa	Bo, Co Gr, Sa	Bo, Co Gr, Sa			

Bedrock (Br)	Boulder (Bo)	Cobble (Co)	Gravel (Gr)	Sand (Sa)	Silt (Si)	Clay (Cl)	Muck (Mu)	Detritus (D)
	10	60	15	15				

BANK STABILITY

	Stable	Slightly Unstable	Moderately Unstable	Unstable
Left Bank	●	○	○	○
Right Bank	●	○	○	○
	Deposition Zone	Protected Bank	Vulnerable Bank	Eroding Bank
Left Bank	○	○	○	○
Right Bank	○	○	○	○

HABITAT

In-Stream Cover (% surface area):

Undercut banks:	Boulders:	Cobbles:	Organic Debris:	None
—	25	5	—	○

Vascular Macrophytes:	Woody Debris:
Instream: —	Instream: 10
Overhanging: 65	Overhanging: 15

Shore Cover (% stream shaded):

100-90%	89-60%	59-30%	29-1%	None
○	●	○	○	○

Vegetation Type:

Vegetation Type (%)	Submergent:	Floating:	Emergent:	None
	—	—	—	●
Predominant Species:	/	/	/	

MIGRATORY OBSTRUCTIONS

Permanent	Seasonal	None
✓	✓	X

POTENTIAL CRITICAL HABITAT

Spawning	Groundwater	Other
Bait/forage fish	✓	-

POTENTIAL ENHANCEMENT OPPORTUNITIES

- Remove section of concrete channel under bridge

ADDITIONAL COMMENTS

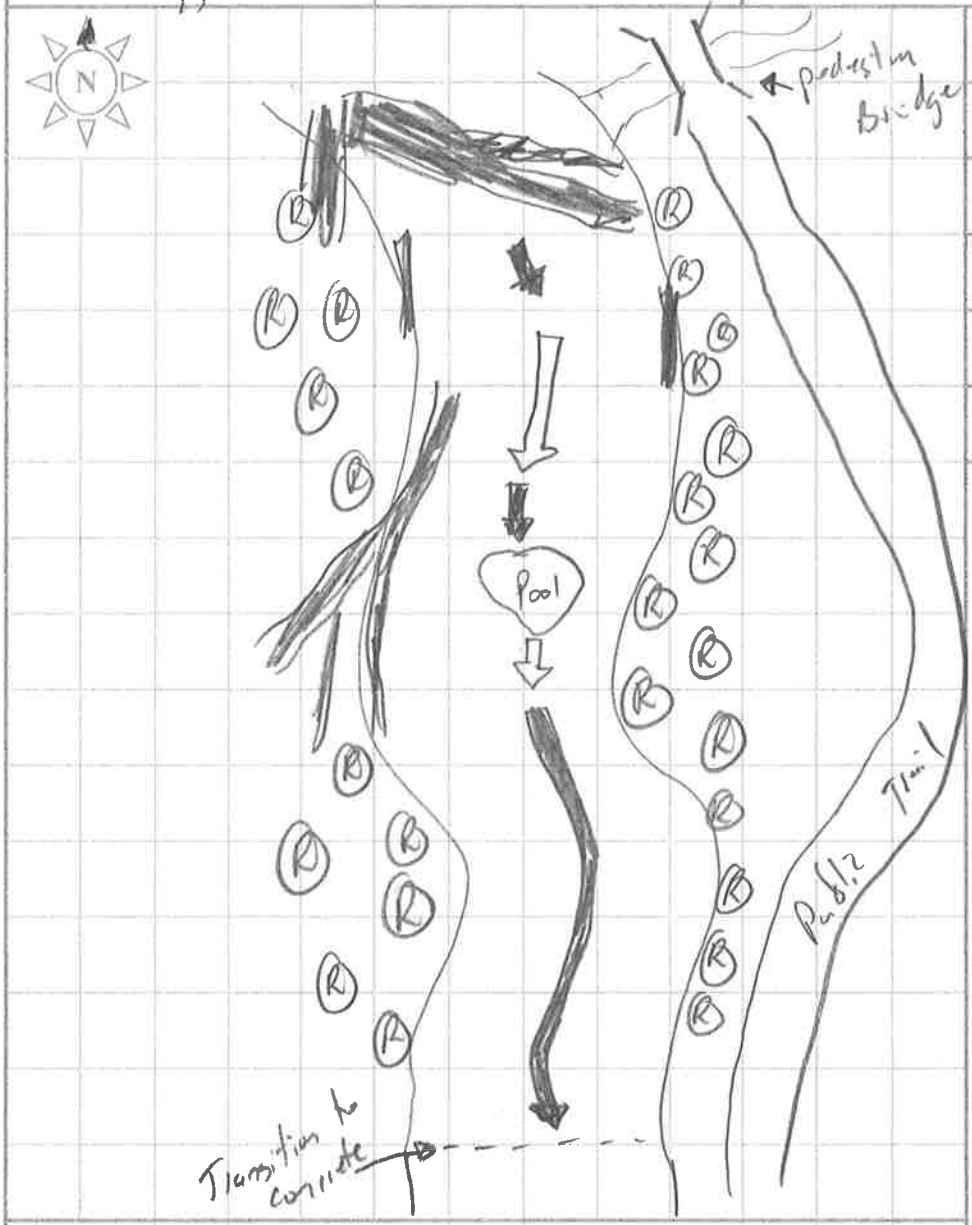
- primarily long riffle section w slight meander pattern
  - with 2 short runs + 1 pool near ups extent
- no instream veg
- Substrates dominated by large rounded cobble + boulders
- public path runs close to creek along east bank
- creek flows within narrow riparian corridor w in urban environment
- large fallen willow along west bank + overhanging channel

Additional Notes Appended? ● No ○ Yes Number of Pages _____

Ministry of Transportation

Ontario

SECTION IDENTIFIER:	SECTION LOCATION:	SECTION LENGTH (m):	SCALE (cm / m):
u/s		50	



PROFILE: Horz. Scale: Vert. Scale:

PROJECT #: 478286

MAPPER: B. McUrich

NAME OF WATERBODY: Minico Creek

CROSSING #: —

STATION #: —

DATE: YY-MMM-DD: 22-08-03

LEGEND

10d depth (cm)
6w width

➡ Riffle
⇨ Run/Glide
⬭ Pool
▩ Island/Bar
⁘ Fine Substrate
Gravel Substrate
oOooO Cobble /Boulder
* * * Debris

CT Cattail
SV/FV Submergent/Float Veg
EV Emergent Vegetation
W Watercress
Fe Iron Staining
/////// Eroded Bank
xxx Riprap/Other Stabilization
⊂⊃ Instream Log/Tree
^^^ Dam/Weir/Obstruction
® Riparian Tree

├► Seep/Spring
-------- Undercut Bank
— Barrier to Fish Movement
-S- Seasonal Barrier
-x--x- Fence line
└┘ Culvert

Ministry of Transportation

Ontario

WATERCOURSE FIELD COLLECTION FORM

GENERAL INFORMATION			
Project #: 478286	Project Description: Williams Parkway		Date: August 3 2022
Is Stream Realignment required for this section: O Yes O No O Unknown			
Collectors: J. Palumbo B. MacVeigh		Time Started: 9:45	Time Finished: 10:05
Weather Conditions: overcast, slight wind			
Air Temp (°C): 22	Water Temp (°C): 20.4	Conductivity (µS/cm): 1.53 mS/cm	Velocity (m/s): —
Photos Numbers And Descriptions: pH = 8.21 NTU = 8.5			

LOCATION			
Name of Waterbody: Minico Creek	Drainage System:	Crossing #: WC-01	Station #: —
Location Of Crossing: southeast of Williams Parkway Secondary School, Williams Parkway			
GPS Coordinates: 43.72922, -79.73530		MTO Chainage: —	
Township: Brampton		MNRF District: Aurora	

LAND USE AND POLLUTION	
Surrounding Land Use: pond, forest	Sources of Pollution: litter

EXISTING STRUCTURE TYPE				
Bridge ○	Box Culvert ○	Open Foot Culvert ○	CSP ○	N/A ○
Other ○ (Describe)		Size: (w x h) m^2		

SECTION TYPE AND MORPHOLOGY	
Section (Reach) Identifier: D/S	Section Location: (Include On Habitat Map)
Associated Wetland: No	

Stream / River ○	Channelized ○	Permanent ●	Intermittent ○	Ephemeral ○

Total Section (Reach) Length (m):

Sub-Sections:	Run ●	Pool ○	Riffle ●	Flats ●	Culvert ○	Other ○
Percentage of Area:	80		10	10		
Mean wetted depth (m)	0.4		0.1	0.3		
Mean wetted width (m)	2.5		2.5	2.5		
Mean bankfull depth (m)	1.4		1.1	1.3		
Mean bankfull width (m)	5		5	5		
Substrate (type & %)						

Bedrock (Br)	Boulder (Bo)	Cobble (Co)	Gravel (Gr)	Sand (Sa)	Silt (Si)	Clay (Cl)	Muck (Mu)	Detritus (D)

BANK STABILITY				
	Stable	Slightly Unstable	Moderately Unstable	Unstable
Left Bank	○	●	○	○
Right Bank	●	○	○	○
	Deposition Zone	Protected Bank	Vulnerable Bank	Eroding Bank
Left Bank	○	○	○	○
Right Bank	○	○	○	○

HABITAT

In-Stream Cover (% surface area):

Undercut banks:	Boulders:	Cobbles:	Organic Debris:	None
	10			75 ○

Vascular Macrophytes:	Woody Debris:
Instream:	Instream: 5
Overhanging: 10	Overhanging:

Shore Cover (% stream shaded):

100-90%	89-60%	59-30%	29-1%	None
●	○	○	○	○

Vegetation Type:

Vegetation Type (%)	Submergent:	Floating:	Emergent:	None
				●
Predominant Species:				

MIGRATORY OBSTRUCTIONS		
Permanent	Seasonal	None
~	—	X

POTENTIAL CRITICAL HABITAT		
Spawning	Groundwater	Other
bait/forage fish	—	X

POTENTIAL ENHANCEMENT OPPORTUNITIES

- add in stream veg for fish habitat
- remove litter

ADDITIONAL COMMENTS

- very degraded, banks have trees and rocks but very little other vegetation, just exposed soil
- exposed tree roots

Additional Notes Appended? ◉ No ○ Yes Number of Pages _____

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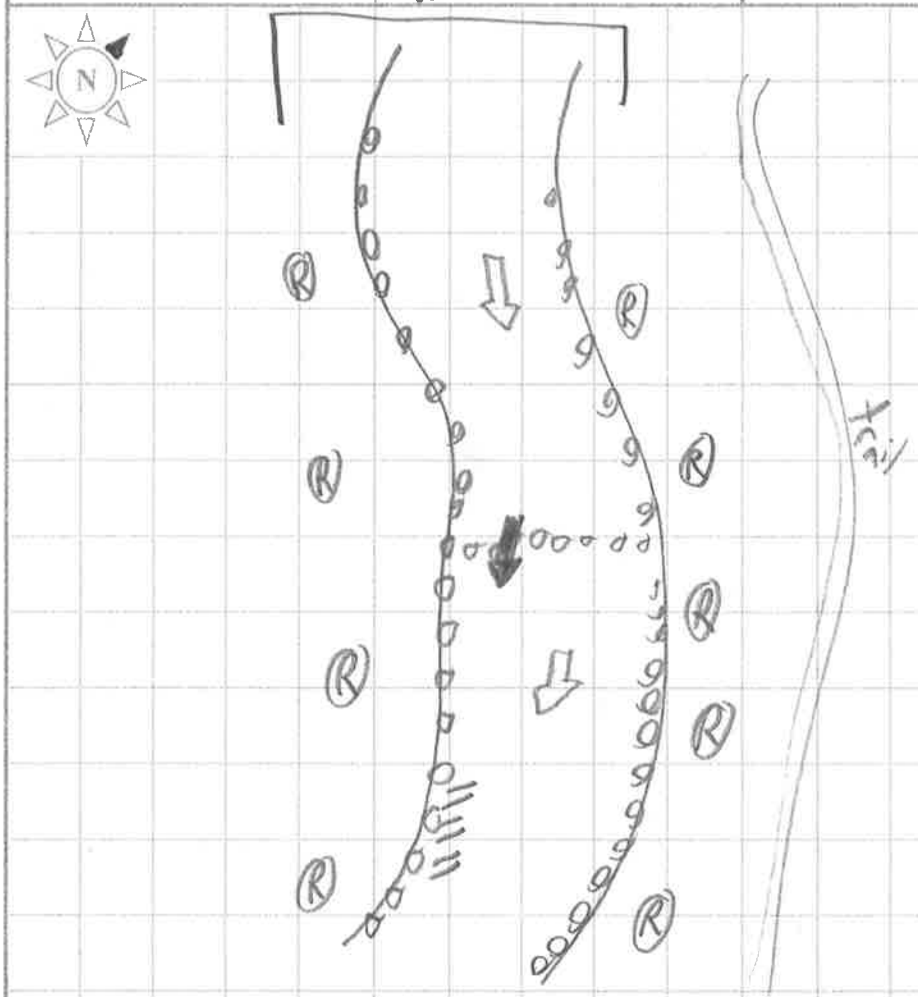
Ontario

SECTION IDENTIFIER:	SECTION LOCATION:	SECTION LENGTH (m):	SCALE (cm / m):
D/S	WC-01		



PROJECT #: 479286

MAPPER: J. Pollard

NAME OF WATERBODY: trib of spring creek

CROSSING #: WC-01

STATION #: —

DATE: YY-MMM-DD 22-Aug-03

LEGEND

10d depth (cm)
6w width

➡ Riffle
⇨ Run/Glide
⬭ Pool
▓ Island/Bar
░ Fine Substrate
Gravel Substrate
oOooO Cobble /Boulder
* * * Debris

CT Cattail
SV/FV Submergent/Float Veg
EV Emergent Vegetation
W Watercress
Fe Iron Staining
/////// Eroded Bank
xxx Riprap/Other Stabilization
⊂⊃ Instream Log/Tree
^^^ Dam/Weir/Obstruction
® Riparian Tree

├▶ Seep/Spring
-------- Undercut Bank
— Barrier to Fish Movement
-S- Seasonal Barrier
-x--x- Fence line
└┘ Culvert

PROFILE: Horz. Scale Vert. Scale

Ministry of Transportation

Ontario

FISH COMMUNITY INVENTORY FORM

GENERAL INFORMATION

Project #	Date:
Williams Parkway	August 2022

Project Description:

Williams Pkwy EA

Collectors:	Time Started:	Time Finished:
B. Mackeigh J. Rhombo	9:45	10:05

Weather Conditions:	Surface Conditions (If Applicable):			
	Calm	Rippled	Wavy	Rough
Sunny, Hot, No wind	⊗	⊗	○	○

LOCATION

Name of Waterbody:	Crossing #:	Station #:
Unnamed trib of Spring Creek	West	

Location of Crossing/Station:

Williams Pkwy Crossing of Mimico Creek

GPS Coordinates:	MTO Chainage:
43.72922 -79.73530	
Township: Brampton	**MNRF District:** Aurora

SAMPLING LOCATIONS AND WATER CHEMISTRY

Location:	Length (m)	Air Temp. (°C)	pH	Dissolved Oxygen (mg/L)	Water Temp. (°C)	Conductivity (µS/cm)
Upstream						
Downstream	100	23	8.21	—	20.4	0.153
Culvert/Hwy ROW						

Water Colour:

Colourless	Yellow/Brown	Blue/Green	Turbid	Other
●	○	○	○	○

GEAR

Electrofisher: LR-24

Length (m):	Settings:	Seconds:
100	80Hz 110V 12% 0.3-0.6 Amps	391

Nets and Traps:

Minnow Trap: ○ #	Dip Net ● # 2	Trap Net ○ #
Seine: ○	Gill ○	Other ○ Specify:
Hauls (#):	Period of Time (24 Hour Clock):	
	Set Time:	Clear Time:

Size of Net:

Length (m):	Mesh Size:	Depth of Capture:
	Smallest (cm):	Minimum (m):
	Largest (cm):	Maximum (m):

SAMPLE COLLECTION

Fish Kept? ○ Yes ● No	Number of Bags	Preservative: Formalin ○	Frozen ○	Alcohol ○	Other (specify) ○

ADDITIONAL COMMENTS

very few fish observed

Additional Notes Appended? (No) Yes number of pages _____

CAPTURE INFORMATION					
Project #: Williams parkway			Crossing/Station #: Unnamed trib of spring creek		
No.	Scientific Name / Common Name	Physical Condition		Top Predator	
		# Fish with Blackspot	# Fish with Lesions, Tumours, Maturity etc.	Length (mm) F=Total Fork or L=Total Length	Age Class YOY/ Juvenile/ Adult
1	green sunfish				
1	creek chub				
1	Brown Bullhead				

Note: circle number if a sample was kept

APPENDIX F
(SIGNIFICANT WILDLIFE HABITAT ASSESSMENT)

Species		SAR Status			Conservation Rank and Rarity Status							
Common Name	Scientific Name	National (SARA)	Provincial (ESA, 2007)	National (COSEWIC)	Global (G-rank)	Provincial (S-rank)	Conservation Priorities [1]	Regional Rarity Rank [2]	Local Rarity Rank [3]	Source	Assessment	Impact Potential
AMPHIBIANS												
Eastern Red-backed Salamander	*Plethodon cinereus*				G5	S5			L3	ORAA	Unlikely - These species may be encountered along Mimico Creek, the tributary of Spring Creek or in the surrounding woodland habitat present within the study area. Suitable habitat is not present within the Project limits.	UNLIKELY
Gray Treefrog	*Hyla versicolor*				G5	S5			L2	ORAA		
Northern Leopard Frog	*Rana pipiens*				G5	S5			L3	ORAA		
Spotted Salamander	*Ambystoma maculatum*				G5	S4			L1	ORAA		
Spring Peeper	*Pseudacris crucifer*				G5	S5			L2	ORAA		
Wood Frog	*Rana sylvatica*				G5	S5			L2	ORAA		
REPTILES												
Midland Painted Turtle	*Chrysemys picta marginata*	NAR	SC	SC	G5T5	S4			L3	ORAA	Unlikely - The turtle species may be encountered along Mimico or the tributary of Spring Creek but likely only as they pass through to more suitable habitat. Red-bellied snake may be encountered in a variety of habitats as they are habitat generalists but require abundant ground cover with logs and rocks, which were not observed at site.	UNLIKELY
Northern Map Turtle	*Graptemys geographica*	SC	SC	SC	G5	S3			L2	ORAA; NHIC		UNLIKELY
Snapping Turtle	*Chelydra serpentina*	SC	SC	SC	G5	S3			L3	ORAA		UNLIKELY
Red-bellied Snake	*Storeria occipitomaculata*				G5	S5			L3	ORAA		UNLIKELY
BIRDS												
Purple Martin	*Progne subis*				G5	S3B	Increase		L4	OBBA	Unlikely - This species prefers man made nests near water and semi-open country habitat. Possible flyover events may occur however, suitable habitat is not present within the study area or adjacent lands.	UNLIKELY
Grasshopper Sparrow	*Ammodramus savannarum*	SC	SC	SC	G5	S4B	Increase		L2	OBBA; NHIC; eBird	Unlikely - This species prefers open grasslands. Suitable habitat was not observed within the study area or adjacent lands. No individuals were observed during field investigations.	UNLIKELY
Wood Thrush	*Hylocichla mustelina*	THR, Schedule 1	SC	THR	G4	S4B				OBBA	**Potential** - OBBA has records of this species from within the 10km^2 map squares (17PJ04). The woodlands in the study area and adjacent lands may provide suitable habitat, however this species and its habitat is not anticipated to be impacted by the proposed works.	UNLIKELY
Common Nighthawk	*Chordeiles minor*	SC	SC	SC	G5	S4B				OBBA	Unlikely- OBBA has records of this species from within the 10km^2 map squares (17PJ04). There are no suitable nesting or foraging habitat within the study area and adjacent lands for this species.	UNLIKELY
Barn Swallow	*Hirundo rustica*	THR, Schedule 1	SC	SC	G5	S4B				OBBA	Unlikely - OBBA has records of this species from within the 10km^2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area. This species nor its nests were observed within the study area or adjacent lands during 2022 field investigations. There is limited nesting habitat as road culverts and lacks sufficient foraging habitat in the study area. Therefore, it is considered that there is no suitable habitat within the study area for this species.	UNLIKELY
Eastern Wood-Pewee	*Contopus virens*	SC	SC	SC	G5	S4B	Increase		L4	OBBA, NHIC, NAI	Unlikely - OBBA has records of this species from within the 10km2 map squares (17PJ04) and NHIC has a previous occurrence record in the 1km2 square (17PJ0242). There are woodland habitats within the study area however there are no suitable habitat due to the presence of strong understory vegetation (shrubs).	UNLIKELY
INVERTEBRATES												
Monarch	*Danaus plexippus*	END, Schedule 1	SC	END	G4	S2N, S4B				OBA	Unlikely - There are no previous records of Monarchs within the study area. This species and its habitat is not anticipated to be impacted by the proposed works.	UNLIKELY

Definitions, Acronyms and Symbols

Global G-rank

G1: Critically Imperiled (at very high risk of extinction)
G2: Imperiled (at high risk of extinction)
G3: Vulnerable (at moderate risk of extinction)
G4: Apparently Secure (Uncommon but not rare)
G5: Secure (common, widespread and abundant)
G#G#: Range Rank (range of uncertainty about the status of a taxon or ecosystem type)
GU: Unrankable (currently unrankable due to lack of information)
GNR: Unranked (global rank not yet assessed)
GNA: Not Applicable (species is not a suitable target for conservation activities)
T: Denotes that the rank applies to a subspecies or variety
B: Breeding
N: Non-breeding

Provincial S-rank

S1: Critically Imperiled (i.e. fewer than 5 occurrences in the nation and/or province)
S2: Imperiled (i.e. fewer than 20 occurrences in the nation and/or province)
S3: Vulnerable (i.e. 20-80 occurrences in the nation and/or province)
S4: Apparently Secure (uncommon, but not rare in the nation and/or province)
S5: Secure (common, widespread and abundant in the nation and/or province)
SNA: Not Applicable (species is not a suitable target for conservation activities)
SHB: Breeding is not confirmed in Ontario
S#S#: Range Rank (range of uncertainty about the status of the species or community)
S#?: Rank is Uncertain
S?: Not Ranked Yet
B: Breeding migrants/vagrants
N: Non-breeding migrants/vagrants

Conservation Priorities[1]

Recovery Objective - Species at Risk
Increase - Population in decline
Maintain Current - Appears to be stable or increasing
Assess/ Maintain - Monitoring data was insufficient to propose an objective

Regional Rarity (Carolinian Canada)[2]

C: Common
U: Uncommon
R: Rare
X: No Status

COSEWIC: Committee on the Status of Endangered Wildlife in Canada
ESA: Endangered Species Act
SARA: Species at Risk Act
SARO: Species at Risk in Ontario

SARA or ESA designation

END - Endangered
THR - Threatened
SC - Special Concern
NAR - Not at Risk

Local Rarity (TRCA)[3]

L1: Species of Regional Conservation Concern (regionally scarce due to either accidental occurrence or extreme sensitivity to human impacts)
L2: Species of Regional Conservation Concern (somewhat more abundant and generally slightly less sensitive than L1 species)
L3: Species of Regional Conservation Concern (generally less sensitive and more abundant than L1 and L2 ranked species)
L4: Species of Urban Concern (occur throughout the region but could show declines if urban impacts are not mitigated effectively)
L5: Species that are considered secure throughout the region
L+: Introduced species (not native to the Toronto region)
LX: Extirpated species (species not recorded in the region in the past 10 years)
LS: Sporadic breeder (species not recorded in the region in the past 10 years)
L+?: Species is probably introduced

References / Sources

1 - Bird Conservation Strategy for Bird Conservation Region (BCR) 13 in Ontario Region: Lower Great Lakes/St. Lawrence Plain (Environment Canada 2014)
2 - List of the Vascular Plants of Ontario's Carolinian Zone (Ecoregion 7E) (Oldham, 2017).
3 - Flora Species for the TRCA Jurisdiction (TRCA, 2019) & Fauna Ranks and Scores for the TRCA Jurisdiction (TRCA, 2019).
4 - NHIC - Natural Heritage Information Centre (NHIC) Make-a-map Tool (Ministry of Natural Resources and Forestry, 2021)
5- iNaturalist website available online at https://www.inaturalist.org/ (all projects searched, including NHIC Rare Species of Ontario and Herps of Ontario Projects).
6 - eBird website available online at https://ebird.org/map/
7- ORAA - Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019)
8 - OBBA - Ontario Breeding Bird Atlas (Bird Studies Canada, 2005)
9- AMO - Atlas of the Mammals of Ontario (Dobbyn, 1994)
10 - OBA - Ontario Butterfly Atlas (Macnaughton et al., 2019)
11 - NAI - Main - Vodden East Natural Area Inventory (TRCA, 2013)
12 - MECP - Ministry of Environment, Conservation and Parks email correspondence (2021)

APPENDIX G
(SPECIES AT RISK SCREENING)

Species		SAR Status					
Common Name	*Scientific Name*	National (SARA)	Provincial (ESA, 2007)	Source	Habitat	Assessment	Impact Potential
MAMMALS							
Eastern Small-footed Myotis	*Myotis leibii*	No Status	END	AMO	Roosts in caves, mine shafts, crevices or buildings that are in or near woodland; hibernates in cold dry caves or mines; maternity colonies in caves or buildings; hunts in forests (MNRF, 2000)	Unlikely - No suitable roosting habitat in the form of caves, barns, or rock crevices are present in the study area.	UNLIKELY
Little Brown Myotis	*Myotis lucifugus*	END, Schedule 1	END	AMO	Uses caves, quarries, tunnels, hollow trees or buildings for roosting; winters in humid caves; maternity sites in dark warm areas such as attics and barns; feeds primarily in wetlands, forest edges (MNRF, 2000). Roosts in crevices and cavities in dead or dying trees, or sometimes beneath naturally loose bark on species like Shagbark Hickory (MNRF, 2017).	**Potential** - There are no previous records of SAR bats within the study area and no individuals were observed during the 2022 site visit. However there are forest habitats with large trees of sufficient diameter to allow for possible nesting habitat with the creeks as foraging habitat. With appropriate timing windows and sweeps as mitigation measures, this species and its habitat is not anticipated to be impacted by proposed works.	LOW
Northern Myotis	*Myotis septentrionalis*	END, Schedule 1	END	AMO	Hibernates during winter in mines or caves; during summer males roost alone and females form maternity colonies of up to 60 adults; roosts in houses, manmade structures but prefers hollow trees or under loose bark; hunts within forests, below canopy (MNRF, 2000)		
Tricolored Bat	*Perimyotis subflavus*	END, Schedule 1	END	AMO	Open woods near water; roosts in trees, cliff crevices, buildings or caves; hibernates in damp, draft-free, warm caves, mines, or rock crevices (MNRF, 2000). Prefers roosts in foliage within or below the canopy, mostly in oak species but also sometimes in maples. Clusters of dead or dying leaves on live branches are preferred (MNRF, 2017).		
Hoary Bat	*Lasiurus cinereus*	END, Pending Uplisting (TBD)	END, Pending Uplisting (Jan 2025)	COSSARO, COSEWIC	A migratory bat species, habitat range throughout North America where it moves from Canada into southern US and Mexico. This species shows fidelity for roosting trees between years and within roosting season. Roosting tree features preferred include foliage of trees, occasionally shrubs, with open flight space below. Roosting trees can be in deciduous or coniferous forests of any age class, with preference for large diameter trees that rises beyond the surrounding canopy. Roosting sites that take advantage of southern facing aspects and wind shelter are also preferred (ECCC 2024).	**Potential** - Forest habitats with large trees of sufficient diameter to allow for possible nesting habitat with the creeks as foraging habitats. All trees to be removed are located either outside of, or on the edge of treed communities, and along roadsides of residential areas. These species are known to be more tolerant of light disturbance and may utilize artificial lighting including along highways, for foraging opportunities. However, as foliage-roosting species, the trees identified for removal represent an insignificant proportion of suitable roost sites within the surrounding landscape. Any remaining likelihood of impacts to occasional/incidental roosts can be mitigated through avoiding tree removals during the bat active season (April 1 to September 30).	LOW
Eastern Red Bat	*Lasiurus borealis*	END, Pending Uplisting (TBD)	END, Pending Uplisting (Jan 2025)	COSSARO, COSEWIC	A migratory bat species, habitat range throughout North America where it moves from Canada into southern US and Mexico. This species shows fidelity for roosting trees between years and within roosting season. Roosting tree features preferred include foliage of trees, occasionally shrubs, with open flight space below. Roosting trees can be in deciduous or coniferous forests of any age class, with preference for large diameter trees that rises beyond the surrounding canopy. Roosting sites that take advantage of southern facing aspects and wind shelter are also preferred (ECCC 2024).		

Species		SAR Status					
Common Name	*Scientific Name*	National (SARA)	Provincial (ESA, 2007)	Source	Habitat	Assessment	Impact Potential
Silver-haired Bat	*Lasionycteris noctivagans*	END, Pending Uplisting (TBD)	END, Pending Uplisting (Jan 2025)	COSSARO, COSEWIC	A migratory bat species, habitat range throughout North America where it moves from Canada into southern US and Mexico. Roosting occurs primarily under bark and in cavities of large, decaying trees of both coniferous and deciduous forests. Tree features preferred for roosting include heart-rot infections at limb breakages, large sheets of exfoliating bark, and old woodpecker cavities. Roost switching is common and this species will occasionally use man-made roosts such as buildings where natural roosts are scarce (ECCC 2024).	**Potential** - Forest habitats with large trees of sufficient diameter to allow for possible nesting habitat with the creeks as foraging habitats. All trees to be removed are located either outside of, or on the edge of treed communities, and along roadsides of residential areas. This species is known to be more tolerant of light disturbance and may utilize artificial lighting including along highways, for foraging opportunities. However, Silver-haired Bat is typically associated with cavities located in old-growth trees and interior forested landscapes, and any roosting opportunities provided by the trees to be removed are likely to be limited to occasional use and represent an insignificant proportion of suitable roost sites within the surrounding landscape. Any remaining likelihood of impacts to occasional/incidental roosts can be mitigated through avoiding tree removals during the bat active season (April 1 to September 30).	LOW
BIRDS							
Bank Swallow	*Riparia riparia*	THR, Schedule 1	THR	OBBA	Bank swallows nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposits. Many nests are on banks of rivers and lakes, but they are also found in active sand and gravel pits or former ones where the banks remain suitable. The birds breed in colonies ranging from several to a few thousand pairs.	Unlikely – OBBA has records of this species from within the 10km^2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area or adjacent lands. Suitable banks or bluffs are not present within the study area or adjacent lands.	UNLIKELY
Bobolink	*Dolichonyx oryzivorus*	THR, Schedule 1	THR	OBBA	Tall grasslands, such as pastures and hayfields or shrubby overgrown fields or other open areas.	Unlikely - OBBA has records of this species from within the 10km^2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area. Habitat for this species is not considered present. There are no suitable vegetation communities present within the study area or adjacent lands for this species.	UNLIKELY
Chimney Swift	*Chaetura pelagica*	THR, Schedule 1	THR	OBBA	Historically found in deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer; now most are found in urban areas in large uncapped chimneys (MECP 2022).	Unlikely - OBBA has records of this species from within the 10km^2 map squares (17PJ04). However there are no identified critical habitat present in the Brampton area according to the Proposed Recovery Strategy (2022). This species is not expected to be impacted by the proposed works.	UNLIKELY
Eastern Meadowlark	*Sturnella magna*	THR, Schedule 1	THR	OBBA	Tall grasslands, such as pastures and hayfields or shrubby overgrown fields or other open areas (MECP 2022).	Unlikely - OBBA has records of this species from within the 10km^2 map squares (17PJ04). E-bird did not have any recent records of this species in the study area. Habitat for this species is not considered present. There are no suitable vegetation communities present within the study area or adjacent lands for this species.	UNLIKELY
FISH							
Redside Dace	*Clinostomus elongatus*	END, Schedule 1	END	NHIC	Pools and slow-moving coolwater clear streams composed of rock, gravel or sand substrate, where shrubs and trees provide overhead cover (MECP 2022).	Unlikely - NHIC has record of occurrence in the 1km^2 square (17PJ0142) however are likely historical. No results were found for Critical Habitat or SAR species in the study area (DFO 2022). Habitat for this species is not considered present. There are no cool water streams present within the study area or adjacent lands that would be suitable for this species.	UNLIKELY

Species		SAR Status					
Common Name	*Scientific Name*	National (SARA)	Provincial (ESA, 2007)	Source	Habitat	Assessment	Impact Potential
VASCULAR PLANTS							
Black Ash	*Fraxinus nigra*	END, Schedule 1	END	NHIC	Predominantly a wetland species that can be found in swamps, floodplains and fens (MECP 2022).	Unlikely-NHIC presented a record of occurrence in the 1km^2 square (17PJ0142). The woodlands associated with Mimico Creek and the tributary of Spring Creek may provide suitable habitat, however no Black Ash were documented within the study area during the 2022 field investigations. This species and its habitat is not anticipated to be impacted by the proposed works.	UNLIKELY
Butternut	*Juglans cinerea*	END, Schedule 1	END	iNaturalist	Generally grows in deciduous forests and prefers moist, well-drained soils. Often found along streams or well-drained gravel sites, it prefers sunny openings and forest edges. Doesn't not thrive on dry rocky soil or shade.	Unlikely- While no background records were identified for this species, the woodlands in the riparian areas of Mimico Creek and the tributary of Spring Creek may provide suitable habitat. No Butternuts were documented within the study area during the 2022 field investigations. This species and its habitat is not anticipated to be impacted by the proposed works.	UNLIKELY
AMPHIBIANS							
Western Chorus Frog (Great Lakes/St. Lawrence - Canadian Shield population)	*Pseudacris triseriata pop. 1*	THR, Schedule 1	No Status	ORAA	Prefers terrestrial lowlands of marshes or wet woodlands and requires both terrestrial and aquatic habitats in proximity to each other. Relies on seasonal/temporary ponds, especially wet meadows and floodplains with emergent graminoids; rarely breeds in permanent water bodies.	Unlikely - ORAA has records within 1 km squares. There are no suitable habitat available within the study area.	UNLIKELY

Definitions, Acronyms and Symbols

COSEWIC: Committee on the Status of Endangered Wildlife in Canada
ESA: Endangered Species Act
SARA: Species at Risk Act
SARO: Species at Risk in Ontario

SARA or ESA designation
END - Endangered
THR - Threatened
SC - Special Concern

Sources

1 - NHIC - Natural Heritage Information Centre (NHIC) Make-a-map Tool (Ministry of Natural Resources and Forestry, 2022)
2 - iNaturalist website available online at https://www.inaturalist.org/ (all projects searched, including NHIC Rare Species of Ontario and Herps of Ontario Projects).
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4 - ORAA - Ontario Reptile and Amphibian Atlas (Ontario Nature, 2019)
5 - OBBA - Ontario Breeding Bird Atlas (Bird Studies Canada, 2005)
6 - AMO - Atlas of the Mammals of Ontario (Dobbyn, 1994)
7 - OBA - Ontario Butterfly Atlas (Macnaughton et al., 2019)
8 - MECP - Ministry of Environment, Conservation and Parks Habitat Description (2022)

APPENDIX H
(PHOTOGRAPHIC LOG)

Photo 1: View of typical William Parkway Right-of-Way (ROW) with mowed grass and street trees.

Photo 2: View of ROW along William Parkway near Torbram Road.

Photo 3: View of Don Doan Recreational Trail and adjacent William Parkway, with surrounding residential area.

Photo 4: Looking southwest along William Parkway at local school along the road.

Photo 5: View of TRCA restoration area northwest of William Parkway, along Mimico Creek.

Photo 6: View of small meadow area adjacent to the gas station at the intersection of William Parkway and Torbram Road.

Photo 7: View of reconstructed Mimico Creek and area of restoration by TRCA.

Photo 8: View of Mimico Creek and riparian area west of William Parkway, showing level of canopy cover and shrub and understory species.

Photo 11: View of sides of bank with shrub and understory species of Mimico Creek.

Photo 12: View of Mimico Creek culvert from upstream, facing north.

Photo 13: View from culvert of upstream Mimico Creek, facing south.

Photo 14: View of drainage culvert discharging into Mimico Creek, facing east.

Photo 15: View of upstream Mimico Creek pool adjacent to concrete lining, facing south.

Photo 16: View of drainage culvert discharging into Mimico Creek within TRCA restoration area, facing east.

Photo 17: View of upstream Tributary of Spring Creek, facing north.

Photo 18: View of upstream riffles within Tributary of Spring Creek, facing north.

Photo 19: View of concrete lined Tributary of Spring Creek under the Williams Parkway bridge, facing south.

Photo 20: View of downstream riffle within Tributary of Spring Creek, facing north.

Photo 21: View of exposed soil and eroded banks within Tributary of Spring Creek downstream, facing south.

Williams Parkway Improvements MCEA Study
Natural Environmental Assessment, Existing Conditions and Future Considerations

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