Specifications

RFQ #20120152
Demolition –37 Norton Avenue
North York, Ontario M2N 4A2

Project No. 23007
Date: 2023-08-15

Issued for Tender

MEI ASSOCIATES INC.

PROJECT TITLE: **Demolition – 37 Norton Avenue**

PROJECT LOCATION: 37 Norton Avenue, North York, Ontario M2N 4A2

PROJECT NUMBER: 23007

DIVISION 1 - GENERAL REQUIREMENTS

Division 2 - DEMOLITION AND REMOVALS

Division 31 – EARTHWORK

Division 32 – EXTERIOR IMPROVEMENTS

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1 **DRAWINGS**

The Drawings forming part of Contract Documents are listed below and bound separately.

Drawing No.	**TITLE**
Architectural	
A000	COVER SHEET, LOCATION MAPS, GENERAL NOTES
A100	DEMOLITION PLAN
A200	PROPOSED GRADING PLAN
A300	TOPSOIL & SOD PLAN

END OF DRAWINGS LIST

PART 1 - GENERAL

1. DESCRIPTION OF WORK

1.1 The proposed general scope of work of this project is demolition of a single family detached residential structures, a detached two-car garage, & a wooden shed. The work includes disconnect hydro, utility & water; removal of foundation walls, footings, basement slab, all interior and exterior claddings, walls, floors, canopies, roofs, fireplaces, doors, windows, millworks, mechanical, plumbing, electrical fixture / equipment, as well as removal of all onsite features such as asphalt paving, driveways, walkways, porch, stairs, railings, decks, etc.; removal and disposal of all demolition debris; backfill, re-grading, sodding, & turning the land back to the City for future park use. Any access gate and/or door to the site and the building during the demolition work is to be managed by the awarded General Contractor.

The property located at 37 Norton Avenue, North York. The total demolition of existing house + garage + shed is an approximately 4,067 square feet. The breakdown of the structures are as follows:

Two-storey detached house:

- Basement: Approx. 76.2 square meters (820 square feet)
- Ground floor: Approx. 115.2 square meters (1,240 square feet)
- Second floor: Approx. 113.5 square meters (1,221 square feet)

One-storey detached two-car garage: Approx. 64 square meters (689 square feet)

Backyard wooden shed: Approx. 9 square meters (97 square feet)

All other exterior demolition work, such as demolition of existing asphalt paving demolition, walkway, site components, & etc., shall refer to demolition drawing A100.

2. GENERAL NOTES

2.1 General notes refer to drawing A000.

3. SPECIFIC NOTES

3.1. All trees identified as being retained are to be protected as indicated. Refer to Tree Protection Plans. The contractor shall install any and all tree protection fencing for review and approval by Forestry, prior to any other work commencing.

3.2. Contractor shall verify if any flooded water at the basement prior to the commencement of the work. If necessary, pump the water from the basement of the house and dispose of water in accordance with Environmental Procedures and in a manner not detrimental to public and private property, or any portion of Work completed or under construction.

3.3. Contract Method: Lump sum

3.4. A contractor shall supply all labour, materials, equipment, plant and services to complete all work as shown, specified, drawn and as required.

3.5. The contractor shall be responsible to ensure that all existing water, electrical, sewer and other services in the area of demolition are cut off, disconnected, capped, diverted and or removed as required. If any of the services are still connected a contractor shall disconnect all services as required under the demolition Work. Approved demolition permit and utilities confirmation will be provided to the successful proponent.

Contractor must coordinate the return of the rental hot water tank to Enbridge Gas, prior to house demolition, and is responsible to compensate the City for any and all costs the City might incur as a result of the Contractor not coordinating.

3.6. Develop, maintain and implement environmental plans and controls; all required monitoring, with respect to: erosion and sedimentation control and monitoring; pollution control; dust control and monitoring demolition, hazardous material removals and monitoring. Submit the environmental plan to consultant and owner for review. The contractor is to engage all required consultants and testing agencies necessary to carry out and monitor these activities.

3.7. Provide a list of disposal sites to be used.

3.8. Maintain the site in an organized, orderly, hazard-free and safe condition on a daily basis and carry out construction waste separation and management practice.

3.9. Prior to any demolition work starting, erect a protection fence with a privacy screen and provide protection for adjacent houses, including exterior surfaces of the property.

3.10. The Contractor shall provide temporary site facilities if required within the designated work area consisting of a portable washroom, power, potable water supply and disposal bins and to be located at an area agreed upon with the Owner. The contractor shall bear the cost of these services.

3.11. Allocate construction area for cleaning, clearing, and maintenance of site access routes and approach roads and traffic control measures, as required.

3.12. The contractor shall prevent any damages to the existing roadside storm water drainage. Assume responsibility for care, custody and control of site and perform work to the extent covered in Contract Documents. Make good if any damages to the existing site and existing buildings (adjacent) due to the Work of this Contract.

3.13. Safely remove hazardous materials (Refer to Hazardous Building Materials Survey provided by OHE Consultants).

3.14. Safely demolish and remove from the site the structures noted above. Clean construction materials to be trucked to a registered construction debris site and maintain a log of all materials leaving the site.

3.15. Backfill voids created by the removal of the structures and onsite features with clean fill to maintain a level lot with no dips or mounds.

3.16. Match existing grades and elevations and install topsoil in preparation for sod installation, match grades and elevations with future Lee Lifeson Grading plan provided by the City. Place sod as indicated on the specifications and drawings.

3.17. Adjust the grading to prevent drainage from surrounding properties onto the park property. Surface drainage should be directed towards catch basins using swales and culverts and should not be directed across pathways and sidewalks.

3.18. The cost of Independent Testing & Inspection shall be paid for by the Contractor. The Contractor shall be responsible for conveying all Reports and Test Results from the Independent Testing and Inspection Company to the Owner and Consultant.

3.19. Prior to work commencing, the Contractor shall ensure that required dust control, hoarding, tree protection, noise/vibration management, water/sediment management, waste management and other safety measures are in place to safely conduct all aspects of the work and protect any adjacent structures from damages which may occur from falling debris of other causes related to the work. All demolition and disturbances should be confined to the immediate area of the residence and outbuildings in order to minimize any impact on the surrounding area.

3.20. Prior to commencing any demolition activities, if any designated substances are identified in the building, they must be abated prior to demolition including decommissioning of the above-ground fuel storage tanks. All existing wells, holding tanks, cisterns, monitoring wells and septic systems located at the site shall be decommissioned in accordance with applicable law.

3.21. Relics and antiquities and items of historical or scientific interest such as cornerstones and contents, commemorative plaques, inscribed tablets, and similar objects found on the Site or in building(s) to be demolished, shall remain property of the Owner. Protect such articles and request direction from the Owner. Give immediate notice to the Owner if evidence of archaeological finds is encountered during demolition, and await written instructions before proceeding with work in this area.

3.22. Inclement weather or extra work caused thereby shall not be considered a valid reason for additional payment or delay in satisfactory conclusion of Work.

3.23. At no time are explosive means of demolition permitted. No demolition wastes are to be burned or buried on site.

3.24. Prior to the commencement of the work prepare and submit a report on the proposed demolition methods, procedures and risk management plan.

3.25. THE CONTRACTOR IS TO SUBMIT THE FOLLOWING DOCUMENT FOR REVIEW:

- Site Layout Plan
- Site-Specific Health and Safety Plan
- Environmental Protection Plan
- Traffic Control Plan for trucks leaving the site
- Spill Control Plan.
- Non-Hazardous Waste Disposal Plan
- Dust Control Plan
- Contaminant Prevention Plan
- Waste Water Management Plan
- Erosion and Sedimentation Control Plan
- Proposed Construction Progress Schedule
- Construction/Demolition Waste Management Plan, including Waste Reduction Plan.

3.26. Mandatory photo documentation:

The Contractor shall provide a minimum of 7 photos per building for the item listed below in digital format as a part of the ongoing monitoring of the project and to be included within the job closing documents as follows:

- Pre-construction and site conditions;
- Removal of materials;
- Preparation of surfaces;
- Installation of new materials;
- Completed works;
- Reinstatement

The Contractor shall provide the project site's existing condition detailed photo report including the roads and sidewalks approaching the main street to the site before starting any work or mobilization. This information is required by the City for the Demolition Permit closure. Any cost of repair for the damage or recovery fees will be adjusted from the Contractor’s final bill.

3.27. The Contractor shall ensure that all prescribed posting requirements are posted on the Place of the Work for all workers to view.

3.28. The Contractor represents and warrants to the Owner that the Contractor's employees and Subcontractors have been properly trained and are familiar with the applicable health and safety legislation and if required by the Owner, shall provide proof of such familiarization and training.

3.29. The Contractor shall ensure that its employees and Subcontractors comply with the foregoing conditions and any site-specific health and safety protocols and that all Subcontractors attend the Contractor’s safety meetings and site inspections as required.

3.30. The Contractor shall hold weekly project meetings during demolition in order to coordinate the work of Subcontractors. The meeting schedule shall be acceptable to the Owner, and shall be established at the commencement of the Work. The Contractor shall produce minutes of these meetings and distribute them to invited parties no later than 72 hours after the meeting.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

1.1.1 Not used.

1.2 ADMINISTRATIVE

1.2.1 Schedule and administer project meetings throughout the progress of the work at the call of Departmental Representative.

1.2.2 Prepare agenda for meetings.

1.2.3 Distribute written notice of each meeting four days in advance of meeting date to Departmental Representative.

1.2.4 Provide physical space and make arrangements for meetings.

1.2.5 Preside at meetings.

1.2.6 Record the meeting minutes. Include significant proceedings and decisions. Identify actions by parties.

1.2.7 Reproduce and distribute copies of minutes within three days after meetings and transmit to meeting participants and Departmental Representative.

1.2.8 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.3 PRECONSTRUCTION MEETING

1.3.1 Within 14 days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.

1.3.2 Senior representatives of Departmental Representative, Contractor, major Subcontractors, field inspectors and supervisors will be in attendance.

1.3.3 Establish time and location of meeting and notify parties concerned minimum 5 days before meeting.

1.3.4 Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.

1.3.5 Agenda to include:

1.3.5.1 Appointment of official representative of participants in the Work.

1.3.5.2 Schedule of Work: in accordance with Construction Progress Schedules - Bar (GANTT) Chart.

1.3.5.3 Schedule of submission of project deliverables. Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.3.5.4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 52 00 - Construction Facilities.

1.3.5 .5 Site security in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

1.3.6 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.

1.3.7 Owner provided products.

1.3.8 Record drawings in accordance with Section 01 33 00 - Submittal Procedures.

1.3.9 Maintenance manuals in accordance with Section 01 78 00 - Closeout Submittals.

1.3.10 Take-over procedures, acceptance, warranties in accordance with Section 01 78 00 - Closeout Submittals.

1.3.11 Monthly progress claims, administrative procedures, photographs, hold backs.

1.3.12 Appointment of inspection and testing agencies or firms.

1.3.13 Insurances, transcript of policies.

1.4 PROGRESS MEETINGS

1.4.1 During course of Work and prior to project completion, schedule progress meetings as required.

1.4.2 Contractor, major Subcontractors involved in Work and Departmental Representative are to be in attendance.

1.4.3 Notify parties minimum 5 days prior to meetings.

1.4.4 Record minutes of meetings and circulate to attending parties and affected parties not in attendance within 3 days after meeting.

1.4.5 Agenda to include the following:

1.4.5.1 Review, approval of minutes of previous meeting.

1.4.5.2 Review of Work progress since previous meeting.

1.4.5.3 Field observations, problems, conflicts.

1.4.5.4 Problems which impede construction schedule.

1.4.5.5 Review of off-site fabrication delivery schedules.

1.4.5.6 Corrective measures and procedures to regain projected schedule.

1.4.5.7 Revision to construction schedule.

1.4.5.8 Progress schedule, during succeeding work period.

1.4.5.9 Review submittal schedules: expedite as required.

1.4.5.10 Maintenance of quality standards.

1.4.5.11 Review proposed changes for affect on construction schedule and on completion date.

1.4.5.12 Other business.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

1.1.1 Not used.

1.2 REFERENCES

1.2.1 Not used.

1.3 ADMINISTRATIVE

1.3.1 Submit to Departmental Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.

1.3.2 Do not proceed with Work affected by submittal until review is complete.

1.3.3 Present shop drawings, product data, samples and mock-ups in SI Metric units.

1.3.4 Where items or information is not produced in SI Metric units converted values are acceptable.

1.3.5 Review submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.

1.3.6 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.

1.3.7 Verify field measurements and affected adjacent Work are co-ordinated.

1.3.8 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submittals.

1.3.9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative review.

1.3.10 Keep one reviewed copy of each submission on site.

1.4 PHOTOGRAPHIC DOCUMENTATION

1.4.1 Submit electronic copy of colour digital photography in jpg format, standard resolution as directed by Departmental Representative.

1.4.2 Project identification: name and number of project and date of exposure indicated.

1.4.3 Number of viewpoints: two locations.

.1 Viewpoints and their location as determined by Departmental Representative.

1.4.4 Frequency of photographic documentation: as directed by Departmental Representative.

1.4.4.1 Upon completion of: of Work, or as directed by Departmental Representative.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 NOT USED

END OF SECTION

PART 1 - GENERAL

1.1 PROTECTION OF PUBLIC TRAFFIC

1.1.1 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.

1.1.2 Place equipment in position to present minimum of interference and hazard to travelling public.

1.1.3 Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.

1.1.4 Do not leave equipment on travelled way overnight.

1.1.5 Do not close any lanes of road without approval.

1.1.6 As directed provide detours or temporary roads to facilitate passage of traffic around restricted construction area.

1.1.7 Provide and maintain road access and egress to property fronting along Work under contract.

1.2 INFORMATIONAL AND WARNING DEVICES

1.2.1 Provide and maintain signs, and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.

1.3 CONTROL OF PUBLIC TRAFFIC

1.3.1 Provide competent flag persons, trained and properly equipped as required in following situations:

1.3.1.1 When public traffic is required to pass working vehicles or equipment that block all or part of travelled roadway.

1.3.1.2 Where temporary protection is required while other traffic control devices are being erected or taken down.

1.3.1.3 For emergency protection when other traffic control devices are not readily available.

1.3.1.4 In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.

1.3.1.5 Delays to public traffic due to contractor's operators: maximum 5 minutes.

1.4 OPERATIONAL REQUIREMENTS

1.4.1 Maintain existing conditions for traffic throughout period of contract except when different measures have been approved.

END OF SECTION

PART 1 - GENERAL

1.1 FIRE SAFETY ENFORCEMENT

1.1.1 Comply with and enforce compliance by all contractor personnel with all requirements of this specification section, and with all requirements of the National Building Code of Canada 2010 (NBC), National Fire Code of Canada 2010 (NFC), including all subsequent revisions, issued by the National Research Council of Canada, Ottawa.

1.2 FIRE SAFETY

1.2.1 Ensure all construction personnel are fully familiar with the requirements of this section.

1.2.2 Prior to the commencement of any work that involves welding, burning or the use of open flames provide a fire watch during and after completion of work.

1.2.3 Co-operate with the Fire Department personnel.

1.2.4 Keep rubbish and waste materials to a minimum.

1.2.5 Burning of rubbish is prohibited.

1.2.6 Removal rubbish from the work site at the end of the work day or as frequently as possible.

1.2.7 Do not store flammable waste in work areas. Store greasy or oily rags or materials subject to spontaneous combustion in an approved receptacle. Remove from site daily.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES

1.1.1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.

1.1.2 Health Canada/Workplace Hazardous Materials Information System (WHMIS).

1.1.2.1 Material Safety Data Sheets (MSDS).

1.2. SUBMITTALS

1.2.1 Submit for review a site-specific Health and Safety Plan. Health and Safety Plan must include:

.1 Results of site specific safety hazard assessment.
.2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.

1.2.2 Submit Contractor's authorized representative's work site health and safety inspection reports.

1.2.3 Submit copies of incident and accident reports.

1.3 PROJECT SITE CONDITIONS

1.3.1 Work at site will involve contact with asbestos and other hazardous materials. See the attached Hazardous Materials Abatement, for handling and removal requirements.

1.3.2 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

1.3.3 Ensure that adequate personal protective equipment and devices required for an assigned task are used, based on the nature of the task, the location and conditions of the work place and any hazards that may affect the health and safety of people in the workplace.

1.3.4 Ensure that employees receive adequate training in the proper use and care of the personal protective equipment or devices where personal protective equipment or devices are required under the Occupational Health & Safety Act; and the employee wears or uses the personal protective equipment or devices in accordance with the instruction and training provided.

1.3.5 Ensure that all personal protective equipment or devices are used & maintained by a competent person, and are tested or visually inspected before each use in accordance with the Manufacturer's specifications.

1.3.6 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.

1.3.7 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site specific Health and Safety Plan.

1.4 EXECUTION

1.4.1 Ensure that all work undertaken at this site conforms to the requirements of all municipal, provincial and federal by-laws, acts and regulations in matters of health, safety and environmental protection.

1.4.2 Perform a site hazard assessment and create a site-specific Health and Safety Plan. Identify potential risks of illness, injury or property damage associated with the contracted work. The Health and Safety Plan shall describe the steps and precautions which must be taken by the Contractor, Contractor, subcontractor and their respective employees to avoid identified risks in the hazard assessment.

1.4.3 Assign responsibility for the safety of work undertaken to an employee.

1.4.4 Ensure that all equipment used to perform work is in safe working order, that all safety features are in good working order and that the equipment is maintained in this condition.

1.4.5 Ensure a current material safety data sheet (MSDS) for all controlled substances to be used in the course of the contracted work, as defined in WHMIS legislation is kept at the worksite.

1.4.6 Maintain the work-site in a neat and safe fashion. Upon the completion of the work, the Contractor will remove all equipment, supplies, debris, etc. from the property.

1.4.7 Where a hazard cannot be otherwise controlled, the Contractor shall ensure that its employees, and those of its subcontractors, have the appropriate personal protective equipment and that the equipment is worn when needed. Additionally, the Contractor shall ensure that appropriate safety precautions are in place to avoid injury or damage by the hazard to property, employees of the Contractor and its subcontractors, and members of the public.

1.4.8 Provide a first aid attendant and supplies as appropriate to the nature of the work and the requirements of applicable legislative /regulatory requirements.

1.4.9 Notify the owner and consultant of any accident which resulted or could have resulted in an injury.

1.5 UNFORSEEN HAZARDS

1.5.1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse

Work in accordance with Acts and Regulations having jurisdiction.

1.6 HAZARDOUS MATERIALS

1.6.1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials and regarding labeling and provision of materials safety data sheets acceptable to Labour Canada and Health & Welfare Canada.

1.6.2 Assign to Work, competent and authorized representative as Health and Safety Coordinator.

1.6.3 Ensure personnel entering site are trained in accordance with specified personnel training requirements. Training session must be completed by a Health and Safety Coordinator.

1.6.4 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations having jurisdiction.

1.7 COMPRESSED GAS BOTTLES

1.7.1 All compressed gas cylinders shall be stored and secured in an upright position, protected from heat and sparks and in accordance with the Provincial Occupational Health and Safety Act and Regulations.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

1.1.1 Prior to commencing construction activities submit Environmental Protection Plan a comprehensive overview of known or potential environmental issues which must be addressed during construction.

1.1.2 Environmental Protection Plan shall include:

- 1.1.2.1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.
- 1.1.2.2 Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.
- 1.1.2.3 Names and qualifications of persons responsible for training site personnel.
- 1.1.2.4 Drawings showing locations of proposed material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site.
- 1.1.2.5 Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plans include measures to minimize amount of mud transported onto paved public roads by vehicles or runoff.
- 1.1.2.6 Spill Control Plan: including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
- 1.1.2.7 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
- 1.1.2.8 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, do not become air borne and travel off project site.
- 1.1.2.9 Contaminant prevention plan.

1.2 FIRES

1.2.1 Fires and burning of rubbish on site is not permitted.

1.3 DRAINAGE

1.3.1 Implement and maintain Erosion and Sediment Control Plan.

1.4 SITE CLEARING AND PLANT PROTECTION

1.4.1 Protect trees and plants on site and adjacent properties as per as indicated.

1.4.2 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.

1.4.3 Minimize stripping of topsoil and vegetation.

1.4.4 Restrict tree removal to areas indicated or designated by Consultant.

1.5 POLLUTION CONTROL

1.5.1 Maintain temporary erosion and pollution control features installed under this Contract.

1.5.2 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads or site access areas.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 SITE REINSTATEMENT

3.1.1 Reinstate site conditions in accordance with the scope of work.

3.1.2 Waste Management: separate waste materials for reuse and recycling in accordance with Waste Management and Disposal.

3.1.3 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCES AND CODES

1.1.1 Perform Work in accordance with the latest Ontario Building Code (OBC) including amendments up to tender closing date and other codes of provincial or local application provided that in case of conflict or discrepancy, more stringent requirements apply.

1.1.2 Meet or exceed requirements of:

1.1.2.1 Contract documents.
1.1.2.2 Specified standards, codes and referenced documents.

1.2 HAZARDOUS MATERIAL DISCOVERY

1.2.1 Refer to the Appendices.

1.3 PERMITS

1.3.1 Contractor shall be responsible to obtain all required Permits, including all required inspections to the satisfaction of Authorities Having Jurisdiction, traffic permits, street closure, Noise Control, etc.

END OF SECTION

PART 1 - GENERAL

1.1 INSTALLATION AND REMOVAL

1.1.1 Provide temporary utilities in order to execute work expeditiously.

1.1.2 Remove from site all such work after use.

1.2 DEWATERING

1.2.1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

1.2.2 Treat water as required prior to discharging.

1.3 WATER SUPPLY

1.3.1 Arrange for supply of potable water for construction.

1.4 FIRE PROTECTION

1.4.1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.

1.4.2 Burning rubbish and construction waste materials is not permitted at the Place of the Work.

END OF SECTION

PART 1 - GENERAL

1.1 INSTALLATION AND REMOVAL

1.1.1 The Waste Management Goal is to divert as much of total Project Waste from landfill sites as possible. Provide the documentation that waste management, recycling, salvage, reuse of recyclable and reusable materials have been extensively practiced.

1.1.2 Accomplish maximum control of solid construction waste.

1.1.3 Preserve environment and prevent pollution and environmental damage.

1.2 DEWATERING

1.2.1 At the beginning of the Project, Contractor is to develop and implement a Waste Reduction Workplan to divert maximum amount of construction waste away from landfill.

1.2.2 Contractor shall submit a Waste Audit that identifies anticipated amounts of waste that will be generated and addresses issues such as recycling of construction materials.

1.2.3 Contractor is to comply with the owner's commitment to Waste Reduction.

1.2.4 Contractor shall be responsible for all disassembly, removals, disposal and salvage of all demolition waste, including all equipment which must be removed to complete the scope of work.

1.3 WASTE REDUCTION WORKPLAN

1.3.1 Submit a Waste Reduction Workplan for review.

1.3.2 Waste Reduction Workplan to contain the following:

- 1.3.2.1 Analysis of the proposed jobsite waste to be generated, including types and quantities.
- 1.3.2.2 Landfill options: The name of the local landfill facility, the applicable landfill tipping fees, and the projected cost of disposing of all Project waste in the landfill.
- 1.3.2.3 Salvage options: The name of the local salvage facility.

1.3.3 Alternatives to Landfill: provide a list of material proposed to be salvaged, reused, or recycled during the course of the Project. Materials diverted from landfill to include, at minimum, the following materials:

- 1.3.3.1 Concrete, Bricks, Concrete Masonry Units (CMU).
- 1.3.3.2 Asphalt.
- 1.3.3.3 Metals from banding, steel stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.

1.3.3.4 Plastic buckets.
1.3.3.5 Paint.

1.3.4 Owner will review Workplan and return to Contractor.

1.4 DOCUMENTS

1.4.1 Maintain in a Waste Management binder at job site, one copy of following documents:

1.4.1.1 Schedule A - Waste Audit.
1.4.1.2 Waste Reduction Workplan.
1.4.1.3 Material Source Separation Plan.
1.4.1.4 Schedule B – Waste Tracking Form.
1.4.1.5 Schedule C – Waste/Salvage/Reuse Tracking Summary (sample format).
1.4.1.6 Schedules A, B, and C as completed for the project and maintained up-to-date.

1.5 SUBMITTALS

1.5.1 Prepare and submit following prior to project start up:

1.5.1.1 Submit 2 copies of completed Schedule A - Waste Audit (WA).
1.5.1.2 Submit 2 copies of completed Schedule C - Salvage Materials Tracking Form.
1.5.1.3 Submit 2 copies of completed Waste Reduction Workplan (WRW).
1.5.1.4 Submit 2 copies of Materials Source Separation Program (MSSP) description.

1.5.2 Submit before final payment summary of waste materials salvaged for reuse, recycling or disposal by Project, plus supporting documentation.

1.6 STORAGE, HANDLING AND PROTECTION

1.6.1 Unless specified otherwise, materials for removal become Contractor's property.

1.6.2 Separate non salvageable materials from salvaged items. Transport and deliver non salvageable items to licensed disposal facility.

1.6.3 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated facilities.

1.6.3.1 On site source separation is recommended.
1.6.3.2 Remove co-mingled materials to off-site processing facility for separation.
1.6.3.3 Provide waybills for separated materials.

1.7 DISPOSAL OF WASTE

1.7.1 Keep records of construction waste including:

1.7.1.1 Number and size of bins.
1.7.1.2 Waste type of each bin.
1.7.1.3 Total weight in kilograms generated.
1.7.1.4 Kilograms reused or recycled.
1.7.1.5 Reused or recycled waste destination.
1.7.1.6 Waybills for each load removed from the site.

1.7.2 Prepare and keep up-to-date a project summary to verify destination and quantities on a material by material basis as identified in material audit.

PART 2 - PRODUCT

2.1 Not Applicable

PART 3 - EXECUTION

3.1 CLEANING

3.1.1 Clean up work area as work progresses.

3.2 DIVERSION OF MATERIALS

3.2.1 Provide a summary of all waste, salvaged, reused and diverted materials.

END OF SECTION

PART 1 - GENERAL

1. INSTALLATION AND REMOVAL

1.1 Acceptance of Work Procedures:

1.1.1 Contractor's Inspection: Contractor conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.

1.1.1.1 Notify Consultant in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
1.1.1.2 Request Consultant's inspection.

1.1.2 Consultant's Inspection:

1.1.2.1 Consultant and Contractor to inspect Work and identify defects and deficiencies.
1.1.2.2 Contractor to correct Work as directed.

1.1.3 Completion Tasks: submit written certificates in that tasks have been performed as follows:

1.1.3.1 Work: completed and inspected for compliance with contract documents.
1.1.3.2 Defects: corrected and deficiencies completed.

1.1.4 Final Inspection:

1.1.4.1 When completion tasks are done, request final inspection of Work by Owner, Consultant, and Contractor.
1.1.4.2 If Work is deemed incomplete according to Owner and Consultant, complete outstanding items and request re- inspection.

1.1.5 Declaration of Substantial Performance: when the Owner and Consultant consider deficiencies and defects corrected and requirements of Contract substantially performed, make application for Certificate of Substantial Performance.

1.1.6 Commencement of Lien and Warranty Periods: date of Owner's acceptance of submitted declaration of Substantial Performance to be date for commencement for warranty period and commencement of lien period unless required otherwise by lien statute of Place of Work.

END OF SECTION

PART 1 - GENERAL

1.1 WORK INCLUDED

1.1.1 This section specifies the requirements for demolishing a number of items including, but not limited to existing buildings (including foundations and below grade items), curbs and sidewalks, electrical conduit, communication lines, water, sewer and storm sewer lines and related appurtenances, trees, landscape and removal of existing asphalt where indicated on the drawings or in the specifications.

1.2 SUBMITTALS

1.2.1 Demolition report:

1.2.1.1 Prior to commencement of the work of this section prepare and submit a report on the proposed demolition methods and procedures.
1.2.1.2 Report shall be prepared under the supervision of a professional engineer licensed to practice engineering.
1.2.1.3 Submit 3 copies of the demolition report to the Consultant for record purposes only: Consultant shall neither review nor accept any liability for the contents of the report.
1.2.1.4 Without limiting the requirements of authorities having jurisdiction, the demolition report shall include: diagrams and details showing sequence of demolition work and supporting structures.
1.2.1.5 Schedule of demolition activities.

1.3 QUALITY CONTROL

1.3.1 Develop, maintain and implement plans and controls to minimize dust in the immediate area, including all required monitoring and testing. Provide the consultant with copies of all reports related to testing and monitoring dust levels are within acceptable limits. Incorporate any owner or consultant requested changes to these plans and controls at no additional expense to the Contract.

1.4 PROTECTION

1.4.1 Prevent movement, settlement or damage of adjacent structures and services. Provide bracing, shoring as required. Repair damage caused by demolition as directed by the Consultant.

1.4.2 Do not allow demolition work to adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.

1.4.3 Fires and burning of waste or materials is not permitted on site.

1.4.4 Do not bury waste or materials on site.
1.4.5 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all roads.

1.4.6 Protect trees, plants and foliage on site and adjacent properties where indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Fencing: temporary construction fencing with welded wire mesh or chain link panels and tubular steel frame, minimum 1.8m high, to completely enclose the construction zone.

PART 3 - EXECUTION

3.1 PREPARATION

3.1.1 Inspect site with the consultant and verify extent and location of items designated for removal, disposal, recycling, salvage, relocation and items to remain.

3.1.2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.

3.1.3 Do not disturb adjacent property designated to remain in place.

3.2 INSTALLATION

3.2.1. Contractor shall stake out the location of the site protection hoarding for approval by the consultant prior to installation.

3.2.2. Confine activities to a minimum of 3.0m away from all existing trees and shrubs unless approved by the City. Notify the consultant of all areas where encroachment of Work within 3.0m is required.

3.2.3. Protect roots of designated trees undisturbed to drip line during excavation and site grading to prevent damage. No vehicles, construction materials or equipment shall be stored or temporarily placed beyond the limit of fencing, or below the dripline of existing trees to be preserved.

3.3 PROTECTION

3.3.1. Maintain specified hoarding in good repair at all times. Inspect and repair on a daily basis to maintain the integrity of the system, protect the site and public safety.

3.3.2. No soil removal or placement of fill will be accepted below the dripline of existing trees to be preserved.

3.3.3. Removal of existing trees to be preserved will not be accepted. Pruning of existing trees to be preserved must be approved by the Community Services Representative prior to the pruning taking place, and will be completed in accordance with standard horticultural practices.

3.3.4. The Contractor is responsible for scheduling the Work to ensure that no excavations are to remain open overnight, over weekends, holidays, or times when the site is left unattended.

3.4 BUILDING DEMOLITION

3.4.1 Provide additional materials, labour and services required, not specifically specified or indicated, but necessary for proper completion of work.

3.4.2 Engineer of record to observe condition of building and determine a method of demolition.

3.4.3 Engineer of Record to observe progress of the demolition work to detect hazards that may result from building demolition activities.

3.4.4 Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.

3.4.5 Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

3.4.6 Remove structural framing members and lower to ground by method suitable to minimize ground impact and dust generation.

3.4.7 Explosives: Use of explosives is not permitted.

3.4.8 Remove below-grade construction, foundation walls, slabs and footings, completely.

3.4.9 No concrete, masonry or reinforcing steel demolished from the site can be used as backfill on the site.

3.4.10 At end of each day's work, leave work in a safe and stable condition.

3.4.11 Only stockpile demolition debris as permitted by the consultant.

3.4.12 Complete demolition in a manner to minimize dust. Keep materials wetted as directed by the consultant.

3.4.13 Remove demolition waste from Place of the Work and dispose.

3.5 REINSTATEMENT

3.5.1 Protective fencing shall be removed at the completion of the project.

3.5.2 Where directed by the Community Services Representative, the Contractor shall replace all existing plant material damaged or destroyed during the course of construction to the satisfaction of the City.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

1.1.1 Not used.

1.2 REFERENCE STANDARDS

1.2.1 CSA International

1.2.1.1 CSA S350-M1980R2003, Code of Practice for Safety in Demolition of Structures.

1.2.2 Federal Legislation

1.2.2.1 Canadian Environmental Assessment Act (CEAA), 1995, c. 37.
1.2.2.2 Canadian Environmental Protection Act (CEPA), 1999, c. 33.
1.2.2.3 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.
1.2.2.4 Motor Vehicle Safety Act 1993, c. 16 (MVSA).

1.2.3 Government of Ontario

1.2.3.1 Safety Act.
1.2.3.2 Occupational Health and Safety Regulations.

1.2.4 City of Mississauga

1.2.4.1 Zoning By-Law.
1.2.4.2 Noise Control By-Law, 360-79.

1.3 DEFINITIONS

1.3.1 Alternate Disposal: reuse and recycling of materials by designated facility, user or receiving organization which has valid Certificate of Approval to operate. Alternative to landfill disposal.

1.3.2 Deconstruction: systematic dismantling of structure in a manner that achieves safe removal/disposal of hazardous materials and maximum salvage/recycling of materials.

1.3.2.1 Ultimate objective is to recover potentially valuable resources while diverting from landfill what has traditionally been significant portion of waste system.

1.3.3 Demolition: rapid destruction of structure with or without prior removal of hazardous materials.

1.3.4 Disassembly: physical detachment of materials from structure: prying, pulling, cutting, unscrewing.

1.3.5 Hauler: company (possessing appropriate and valid Certificate of Approval) contracted to transport waste, reusable or recyclable materials off site to designated

facility, user or receiving organization.

1.3.6 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, including but not limited to: corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health, well being or environment if handled improperly.

1.3.7 Processing: tasks which are subsequent to disassembly and may include: moving materials, denailing, cleaning, separating and stacking.

1.3.8 Recyclable: ability of product or material to be recovered at end of its life cycle and re- manufactured into new product for reuse by others.

1.3.9 Recycle: process by which waste and recyclable materials are transformed or collected for purpose of being transferred into new products.

1.3.10 Recycling: process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for purpose of using in altered form.

1.3.10.1 Recycling does not include burning, incinerating, or thermally destroying waste.

1.3.11 Reuse: repeated use of product in same form but not necessarily for same purpose. Reuse includes:

1.3.11.1 Salvaging reusable materials from remodelling projects, before demolition stage, for resale, reuse on current project or for storage for use on future projects.

1.3.11.2 Returning reusable items including pallets or unused products to vendors.

1.3.12 Salvage: removal of structural and non-structural materials from deconstruction/disassembly projects for purpose of reuse or recycling.

1.3.13 Source Separation: acts of keeping different types of waste materials separate, beginning from first time they became waste.

1.3.14 Used Building Material Receipt: receipt issued at end destination for materials designated for alternate disposal.

1.3.15 Waste Audit (WA): detailed inventory of materials in building. Involves quantifying (by volume or weight) amounts of materials and wastes generated during deconstruction. indicates quantities of reuse, recycling and landfill.

1.3.16 Waste Management Coordinator (WMC): contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.

1.3.17 Waste Reduction Workplan (WRW): written report which outlines actions to be taken to reduce, reuse and recycle materials during course of deconstruction. Actions based on finding of the Waste Audit (WA).

1.3.18 Weigh Bill: receipt received from recycling facility indicating weight and content of each load/bin of material.

1.4 ADMINISTRATIVE REQUIREMENTS

1.4.1 Scheduling:

1.4.1.1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion. In event of unforeseen delay notify Departmental Representative in writing.

1.5 PERFORMANCE REQUIREMENTS

1.5.1 Not used.

1.6 ACTION AND INFORMATIONAL SUBMITTALS

1.6.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

1.6.2 Keep copies of submittals on file for minimum of five years after completion of project.

1.6.3 WMC is responsible for fulfillment of reporting requirements.

1.6.4 Prior to start of Work on site, submit detailed WA indicating descriptions of and anticipated quantities of materials to be reused, recycled and landfilled.

1.6.5 Prior to start of Work on site, submit pre-demolition audit and deconstruction/disassembly plan.

1.6.6 Based on findings of WA submit WRW indicating schedule of selective demolition, material descriptions and quantities to be salvaged, number and location of bins, anticipated frequency of tippage, and names and addresses of receiving organizations.

1.6.7 Submit copies of bills of lading or weigh bills from authorized disposal sites and reuse and recycling facilities for material removed from site weekly to Departmental Representative.

1.6.7.1 Written authorization from Departmental Representative is required to deviate from receiving organizations listed in WRW.

1.6.7.2 Include following information:

- 1.6.7.2.1 Time and date of removal.
- 1.6.7.2.2 Description of materials.
- 1.6.7.2.3 Weight, quantity or volume of material.
- 1.6.7.2.4 Breakdown of reuse, recycling and landfill quantities.
- 1.6.7.2.5 End destination of materials.

1.6.8 Hazardous Materials:

1.6.8.1 Submit description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.

1.6.9 Workers, haulers and subcontractors must possess current, applicable Certificates of Approval or permits to remove, handle and dispose of wastes categorized Territorially, Municipally or Federally as hazardous.

1.6.9.1 Provide proof of compliance within 24 hours upon request of Departmental Representative.

1.7 DECONSTRUCTION DRAWINGS

1.7.1 Where required by authorities having jurisdiction, submit for approval drawings, diagrams and details showing sequence of deconstruction work, materials designated for salvage and support of structures and underpinning.

1.8 QUALITY ASSURANCE

1.8.1 Qualifications: provide adequate workforce training through meetings and demonstrations. Have someone on site with deconstruction experience throughout project for consultation and supervision purposes.

1.8.2 Regulatory Requirements:

1.8.2.1 Ensure Work is performed in compliance with CEAA, applicable Municipal/Territorial regulations, CEPA, MVSA and TDGA.

1.8.3 Site Meetings: conduct project meetings every week.

1.8.3.1 Arrange for site visit with Departmental Representative to examine existing site conditions adjacent to demolition work, prior to start of Work.

1.8.3.2 Ensure key personnel including project manager and site supervisor attend.

1.9 DELIVERY, STORAGE AND HANDLING

1.9.1 Not used.

1.10 ENVIRONMENTAL REQUIREMENTS

1.10.1 Do Work in accordance with Section 01 35 43 - Environmental Procedures.

1.10.2 Ensure deconstruction work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air noise pollution.

1.10.3 Fires and burning of waste or materials is not permitted on site.

1.10.4 Do not bury waste or materials on site unless approved in writing by Departmental Representative.

1.10.5 Do not dispose of waste or volatile materials into watercourses, storm or sanitary sewers.

1.10.5.1 Ensure proper disposal procedures in accordance with TDGA and applicable Provincial/Territorial and municipal regulations and CEPA.

1.10.6 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers, or onto adjacent properties in accordance with authorities having jurisdiction.

1.10.7 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with authorities having jurisdiction and as directed by Departmental Representative.

1.10.8 Protect trees, plants and foliage on site and adjacent properties where indicated.

1.10.9 Prevent extraneous materials from contaminating air beyond deconstruction area, by providing temporary enclosures during Work.

1.10.10 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on temporary roads.

1.10.11 Employ reasonable means necessary to protect salvaged materials from vandalism, theft, adverse weather, or inadvertent damage by heavy machinery.

1.10.12 Use natural lighting to do Work where possible.

1.10.12.1 Shut off lighting except those required for security purposes at end of each day.

1.10.13 Organize site and workers in manner which promotes efficient flow of materials through disassembly, processing, stockpiling, and removal.

1.11 SITE CONDITIONS

1.11.1 Existing Conditions:

1.11.1.1 Should materials resembling spray or trowel applied asbestos or other substance listed as hazardous (excluding mould) be encountered in course of deconstruction, stop work, take preventative measures, and notify Departmental Representative immediately. Do not proceed until written instructions have been received.

1.11.2 Structures to be demolished to be based on their condition on date that bid is accepted.

1.11.3 Storage and Protection:

1.11.3.1 Maximum permitted duration of material storage on site 1 week after project completion unless otherwise approved by Departmental Representative.

1.11.3.2 Prevent movement, settlement or damage of adjacent landscaping, paving, walks, adjacent grades, services, or structures. Provide underpinning, shoring and/or

bracing as required. Repair damage caused by deconstruction as directed by Departmental Representative.

1.11.3.3 Support affected structures and, if safety of adjacent structures to the structure being deconstructed appears to be endangered, take preventative measures. Cease operations and immediately notify Departmental Representative.

1.11.3.4 Prevent debris from blocking surface drainage system, elevators, mechanical and electrical systems.

PART 2 - PRODUCTS

2.1 EQUIPMENT

2.1.1 Leave equipment and machinery running only while in use, except where extreme temperatures prohibit shutting down.

2.1.2 Where possible use water efficient wetting equipment/trucks/attachments when minimizing dust.

2.1.3 Demonstrate that tools are being used in manner which allows for salvage of materials in best condition possible.

PART 3 - EXECUTION

3.1 SELECTIVE DEMOLITION

3.1.1 Not used.

3.2 SITE VERIFICATION OF CONDITIONS

3.2.1 Determine if Environmental Assessment (EA) is required under requirements of CEAA.

3.2.1.1 If necessary, employ qualified consultant to perform EA.

3.2.1.2 Communicate findings and conclusions in writing to Departmental Representative prior to start of Work.

3.2.2 Investigate site and structures to determine dismantling, processing and storage logistics required prior to beginning of Work.

3.2.3 Develop strategy for deconstruction to facilitate optimum salvage of reusable and recyclable materials.

3.3 PREPARATION

3.3.1 Obtain necessary permits and approvals including demolition and notify the Inuvik Fire Department.

3.3.1.1 Provide copies to Departmental Representative prior to start of Work on site.

3.3.2 Disconnect electrical, telephone and communication service lines entering buildings

to be deconstructed. Post warning signs on electrical lines and equipment which must remain energized to serve other products during period of demolition.

3.3.3 Locate and protect utility lines. Do not disrupt active or energized utilities traversing premises.

3.3.4 Disconnect and cap mechanical services.

3.3.4.1 Natural gas supply lines: remove in accordance with utility company or authority having jurisdiction requirements.

3.3.4.2 Sewer and water lines: remove in accordance with requirements of authority having jurisdiction.

3.3.4.3 Other underground services: remove and dispose of as directed by Departmental Representative.

3.4 REMOVAL OF HAZARDOUS WASTES

3.4.1 Prior to start of deconstruction work remove contaminated or hazardous materials as defined by authorities having jurisdiction from site and dispose of in safe manner in accordance with TDGA and other applicable regulatory requirements, in accordance with Section 02 81 01 - Hazardous Materials.

3.5 DISASSEMBLY

3.5.1 Materials removed are property of the Contractor.

3.5.2 Throughout course of deconstruction pay close attention to connections and material assemblies. Employ workmanship procedures which minimize damage to materials and equipment.

3.5.3 Ensure workers and subcontractors are briefed and trained to carry out work in accordance with appropriate deconstruction techniques.

3.5.4 Project supervisor with previous deconstruction experience must be present on site throughout project.

3.5.5 Deconstruct in accordance with CSA S350.

3.5.6 Workers must utilize adequate fall protection where Departmental Representative considers it necessary.

3.5.7 Maintain structural integrity of structure.

3.5.8 Systematically remove finishes, furnishings, and mechanical and electrical equipment of value.

3.5.9 Carefully remove windows and doors from structure.

3.5.10 Disassemble non-loadbearing interior partitions and remove materials from structure.

3.5.11 Disassemble in sequence: roof, interior loadbearing partitions, exterior walls, floors, and foundation.

3.5.12 Wherever possible, transfer material assemblies from heights to ground level for easier disassembly. Take appropriate measures to ensure safety.

3.5.13 Separate from waste stream, material in condition suitable for reuse and/or recycling.

3.5.14 Remove and store materials to be salvaged, in manner to prevent damage.

3.5.14.1 Store and protect in accordance with requirements for maximum preservation of material.

3.5.14.2 Handle salvaged materials as new materials.

3.5.15 Source separate for recycling materials that cannot be salvaged for reuse including wood, metal, concrete and asphalt.

3.5.16 Remove materials that cannot be salvaged for reuse or recycling and dispose of in accordance with applicable codes at licensed facilities.

3.5.17 Where existing materials are to be re-used in Work, use special care in removal, handling, storage and re-installation to assure proper function in completed work.

3.6 PROCESSING

3.6.1 Designate location for processing of materials which eliminates double handling and provides adequate space to maintain efficient material flow.

3.6.2 Denail, strip, and/or separate, materials to ensure best possible condition of salvaged materials.

3.6.3 Keep processing area clean and free of excess debris.

3.6.4 Supply separate, marked disposal bins for categories of waste material or separate material into organized piles as practical given the remoteness of the site.

3.7 STOCKPILING

3.7.1 Label stockpiles, indicating material type and quantity.

3.7.2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.

3.7.3 Stockpile materials designated for alternate disposal in location which facilitates removal from site and examination by potential end markets, and which does not impede disassembly, processing, or hauling procedures.

3.8 SELLING OF MATERIALS

3.8.1 Not used.

3.9 REMOVAL FROM SITE

3.9.1 Transport material designated for alternate disposal in accordance with applicable regulations.

3.9.2 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.

3.10 CLEANING AND RESTORATION

3.10.1 Keep site clean and organized throughout deconstruction.

3.10.2 Upon completion of project, remove debris, trim surfaces and leave work site clean.

3.10.3 Upon completion of project, reinstate walkways, light standards, parking surfaces, and other areas affected by Work to condition which existed prior to beginning of Work.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

1.1.1 Not used.

1.2 REFERENCE STANDARDS

1.2.1 Canadian Environmental Protection Act,1999 (CEPA 1999).

1.2.1.1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).

1.2.2 Department of Justice Canada (Jus)

1.2.2.1 Transportation of Dangerous Goods Act, 1992 (TDG Act) 1992, (c. 34).
1.2.2.2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).

1.2.3 Health Canada / Workplace Hazardous Materials Information System (WHMIS)

1.2.3.1 Material Safety Data Sheets (MSDS).

1.2.4 National Research Council Canada (NRC)

1.2.4.1 National Fire Code of Canada 2015 (NFC).

1.3 DEFINITIONS

1.3.1 Dangerous Goods: product, substance, or organism specifically listed or meets hazard criteria established in Transportation of Dangerous Goods Regulations.

1.3.2 Hazardous Material: product, substance, or organism used for its original purpose; and is either dangerous goods or material that will cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into the environment.

1.3.3 Hazardous Waste: hazardous material no longer used for its original purpose and that is intended for recycling, treatment or disposal.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

1.4.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

1.4.2 Product Data:

1.4.2.1 Submit manufacturer's instructions, printed product literature and data sheets for hazardous materials and include product characteristics, performance criteria, physical size, finish and limitations.
1.4.2.2 Submit two copies of WHMIS MSDS in accordance with Section 01 35 29 - Health and Safety Requirements and 01 35 43 - Environmental Procedures to Departmental

Representative for each hazardous material required prior to bringing hazardous material on site.

1.5 DELIVERY, STORAGE AND HANDLING

1.5.1 Deliver, store and handle materials in accordance with manufacturer's written instructions.

1.5.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

1.5.3 Transport hazardous materials and wastes in accordance with Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.

1.5.4 Storage and Handling Requirements:

1.5.4.1 Co-ordinate storage of hazardous materials with Departmental Representative and abide by internal requirements for labelling and storage of materials and wastes.

1.5.4.2 Store and handle hazardous materials and wastes in accordance with applicable federal and provincial/territorial laws, regulations, codes, and guidelines.

1.5.4.3 Store and handle flammable and combustible materials in accordance with National Fire Code of Canada (NFC) requirements.

1.5.4.4 Keep no more than 45 litres of flammable and combustible liquids such as gasoline, kerosene and naphtha for ready use.

1.5.4.4.1 Store flammable and combustible liquids in approved safety cans bearing the Underwriters' Laboratory of Canada or Factory Mutual seal of approval.

1.5.4.4.2 Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires the written approval of the Departmental Representative.

1.5.4.5 Transfer of flammable and combustible liquids is prohibited within buildings.

1.5.4.6 Transfer flammable and combustible liquids away from open flames or heat-producing devices.

1.5.4.7 Solvents or cleaning agents must be non-flammable or have flash point above 38 degrees C.

1.5.4.8 Store flammable and combustible waste liquids for disposal in approved containers located in safe, ventilated area. Keep quantities to minimum.

1.5.4.9 Observe smoking regulations, smoking is prohibited in areas where hazardous materials are stored, used, or handled.

1.5.4.10 Storage requirements for quantities of hazardous materials and wastes in excess of 5 kg for solids, and 5 litres for liquids:

1.5.4.10.1 Store hazardous materials and wastes in closed and sealed containers.
1.5.4.10.2 Label containers of hazardous materials and wastes in accordance with WHMIS.
1.5.4.10.3 Store hazardous materials and wastes in containers compatible with that material or waste.
1.5.4.10.4 Segregate incompatible materials and wastes.
1.5.4.10.5 Ensure that different hazardous materials or hazardous wastes are stored in separate containers.
1.5.4.10.6 Store hazardous materials and wastes in secure storage area with controlled access.
1.5.4.10.7 Maintain clear egress from storage area.
1.5.4.10.8 Store hazardous materials and wastes in location that will prevent them from spilling into environment.
1.5.4.10.9 Have appropriate emergency spill response equipment available near storage area, including personal protective equipment.
1.5.4.10.10 Maintain inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
1.5.4.10.11 When hazardous waste is generated on site:

1.5.4.10.11.1 Co-ordinate transportation and disposal.
1.5.4.10.11.2 Comply with applicable federal, provincial and municipal laws and regulations for generators of hazardous waste.
1.5.4.10.11.3 Use licensed carrier authorized by provincial authorities to accept subject material.
1.5.4.10.11.4 Before shipping material obtain written notice from intended hazardous waste treatment or disposal facility it will accept material and it is licensed to accept this material.
1.5.4.10.11.5 Label containers with legible, visible safety marks as prescribed by federal and provincial regulations.
1.5.4.10.11.6 Only trained personnel handle, offer for transport, or transport dangerous goods.
1.5.4.10.11.7 Provide photocopy of shipping documents and waste manifests to Departmental Representative.
1.5.4.10.11.8 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide photocopy of completed manifest to Departmental Representative.
1.5.4.10.11.9 Report discharge, emission, or escape of hazardous materials immediately to Departmental Representative and appropriate provincial authority. Take reasonable measures to control release.

1.5.4.10.12 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
1.5.4.10.13 Report spills or accidents immediately to Departmental Representative. Submit a written spill report to Departmental Representative within 24 hours of incident.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Description:

2.1.1.1 Bring on site only quantities hazardous material required to perform Work.

2.1.1.2 Maintain MSDS in proximity to where materials are being used. Communicate this location to personnel who may have contact with hazardous materials.

PART 3 - EXECUTION

3.1 CLEANING

3.1.1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

3.1.1.1 Leave Work area clean at end of each day.

3.1.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

3.1.3 Waste Management: separate waste materials for recycling or reuse as required.

3.1.3.1 Dispose of hazardous waste materials in accordance with applicable federal and provincial acts, regulations, and guidelines.
3.1.3.2 Recycle hazardous wastes for which there is approved, cost effective recycling process available.
3.1.3.3 Send hazardous wastes to authorized hazardous waste disposal or treatment facilities.
3.1.3.4 Burning, diluting, or mixing hazardous wastes for purpose of disposal is prohibited.
3.1.3.5 Disposal of hazardous materials in waterways, storm or sanitary sewers, or in municipal solid waste landfills is prohibited.
3.1.3.6 Dispose of hazardous wastes in timely fashion in accordance with applicable provincial regulations.
3.1.3.7 Minimize generation of hazardous waste to maximum extent practicable. Take necessary precautions to avoid mixing clean and contaminated wastes.
3.1.3.8 Identify and evaluate recycling and reclamation options as alternatives to land disposal, such as:

3.1.3.8.1 Hazardous wastes recycled in manner constituting disposal.
3.1.3.8.2 Hazardous waste burned for energy recovery.
3.1.3.8.3 Lead-acid battery recycling.
3.1.3.8.4 Hazardous wastes with economically recoverable precious metals.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

1.1.1. This work shall consist of excavation, embankment fill, disposal of excess material, shaping, and compaction of all material encountered within the limits of work, including excavation and fill for demolitions. The excavation shall include, but is not limited to, the native soils which shall be excavated for the project work. All work shall be completed in accordance with the specifications, the lines and grades, and typical cross-sections shown on the drawings.

1.1.2. All excavation shall be classified, “unclassified excavation,” or “muck excavation” or “rock excavation,” as hereafter described. All embankment shall be classified “embankment material” as hereafter described.

1.2 RELATED SECTIONS

1.2.1. The following is a list of specifications which may be related to this section:

1.2.1.1. Section 01 11 00 – Summary of Work.
1.2.1.2. Section 01 35 00 – Traffic Control.
1.2.1.3. Section 01 35 19 – Health and Safety Requirements.
1.2.1.4. Section 01 35 43 – Environmental Procedures.
1.2.1.5. Section 01 74 21 - Waste Management and Disposal.
1.2.1.6. Section 31 23 19 - Dewatering.
1.2.1.7. Section 32 22 13 - Rough Grading.

1.3 REFERENCES

1.3.1. The following is a list of standards which may be referenced in this section:

1.3.1.1. ASTM International (ASTM):

a. D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft3 (600 kN-m/m3)).

b. D4253, Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.

1.4 DEFINITIONS

1.4.1. Embankment Material shall consist of approved material acquired from excavation or from outside sources, hauled and placed in embankments.

1.4.2. Muck Excavation shall consist of the removal of mixtures of soils and organic matter not suitable for foundation material and replacement with approved material.

1.4.3. Rock Excavation shall consist of igneous, metamorphic and sedimentary rock which cannot be excavated without the use of rippers, and all boulders or other detached stones each having a volume of one-half (1/2) cubic yard or more, as determined by

physical or visual measurement. It shall also include replacement with approved material as required.

1.4.4. Unclassified Excavation shall consist of the excavation of all materials of whatever character required of the WORK, obtained within the project limits.

1.5 QUALITY ASSURANCE

1.5.1. Final topography and/or cross-sections shall be surveyed of areas that are to finished grade and compared to the design section for accuracy.

1.5.2. Final grade shall match design grades within the tolerances discussed in PART 3 EXECUTION.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1. Embankment Material may consist of approved material acquired from excavations or material hauled from outside the project limits.

2.1.2. Suitable material identified onsite shall be used first for embankments and backfill.

2.1.3. Excess excavated native soils which are not used as embankment or backfill shall become the property of contractor and shall be disposed of offsite by contractor, in a location acceptable to Consultant.

2.1.4. Muck Excavation shall also include the replacement of excavated muck with uniformly graded rock, riprap, onsite or imported soils, or other material, whichever is most suitable for the specific situation encountered.

2.1.5. Consultant will determine which type of aggregate or other material which shall be used after observing the specific site conditions.

2.1.6. Material Classifications:

2.1.6.1 Native Backfill and Fill

a. Native backfill or fill materials shall be inorganic soil obtained either from excavations onsiteand/or from borrow sites as approved by the Inspector.
b. Native backfill or fill shall be well graded, containing no rocks larger than 100mm in its greatestdimension, free from loam, roots, frozen lumps, organic matter or other material which is unsuitable in the opinion of the Inspector.
c. Where excavated native material is unsuitable for re-use, it shall be stockpiled onsite.
d. The Contractor shall give the Inspector five days notice to ensure that all borrow material meetsthe specifications before removing material from any borrow source.

2.1.6.2 Granular Backfill and Fill

a. All granular backfill or fill materials shall be obtained from an offsite source, subject to theapproval of the Inspector.

b. Granular backfill or fill shall be hard, durable particles free from clay lumps, silt, cementitious materials, organic material and in accordance with the following classifications and gradationsas determined by ASTM D422:

Backfill and Fill Classifications

Type	Standard Sieve Size (mm)	Percent Passing by Weight
Sand	10	100
	5	95 - 100
	2.40	80 - 100
	1.00	50 - 85
	0.600	25 - 60
	0.300	10 - 30
	0.150	2 - 10
Crushed Gravel	25	100
	16	75 - 100
	9.5	45 - 75
	4.75	32 - 62
	1.00	17 - 43
	0.300	8 - 24
	0.075	2 - 6
Pit Run Gravel	100	100
	75	80 - 100
	25	60 - 80
	5	25 - 45
	1	16 - 25
	0.600	8 - 18
	0.150	4 - 10
	0.075	2 - 6

c. Washed gravel for pipe bedding for perforated Polyethylene underdrain pipe shall be as follows:Clean, angular, crushed run natural stone, free from shale, roots, and organic material, and conform to the following gradation:

Washed Gravel

	Standard Sieve Size (mm)	Percent Passing by Weight
Washed Gravel	50.0	100
	19.0	80 – 95
	4.75	50 – 70
	2.00	40 – 55
	0.425	10 – 20
	0.075	0 – 5

2.1.6.3 Clay for Impervious Liner

a. Where clay soil is to be used for the impervious liner, it shall be a cohesive, fine grained soil oflow to intermediate plasticity, free from loam, roots, organic matter, frozen lumps or other unsuitable material.

b. The clay shall satisfy the following specifications:

- At least 30% of the soil particles in the material must pass the 0.075mm (#200) sieve(ASTM D422);
- The material must have a liquid limit of 30 or greater (ASTM D4318); and
- The material must have a plasticity index of 15 or greater (ASTM D4318).

c. Clay fill shall be obtained from borrow areas offsite. The Contractor shall make their arrangements with the land proprietor to obtain the required borrow material. The Contractor may use any source provided the material satisfies the requirements herein specified and theyobtain prior approval from the Inspector.

PART 3 - EXECUTION

3.1 GENERAL EXCAVATION / EMBANKMENT

3.1.1. General:

3.1.1.1. The excavation and embankment shall be finished to reasonably smooth and uniform surfaces.

3.1.1.2. Variation from the subgrade plane shall not be more than eight-tenths (0.08) foot in soil or more than eight-tenths (0.08) foot above or one-half (0.50) foot below in rock.

3.1.1.3. Where bituminous or concrete surfacing materials are to be placed directly on the subgrade, the subgrade plane shall not vary more than four-tenths (0.04) foot.

3.1.1.4. Materials shall not be wasted without permission of Consultant.

3.1.1.5. Excavation operations shall be conducted so that material outside of the limits of slopes will not be disturbed.

3.1.1.6. Prior to beginning grading operations in any area, all necessary clearing and grubbing in that area shall have been performed in accordance with the City's requirements and the specifications.

3.1.1.7. Contractor shall notify Consultant in sufficient time before beginning excavation or embankment such that the necessary topography and/or cross- sections may be taken. Contractor shall not excavate beyond the dimensions and elevations established, and material shall not be removed prior to surveying the site.

3.1.1.8. When Contractor's excavating operations encounter remains of prehistoric people's dwelling sites or artifacts of historical or archaeological significance, the operations shall be temporarily discontinued.

a. Consultant will contact archaeological authorities to determine the disposition thereof.

b. When directed, Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and shall remove them for delivery to the custody of the proper state authorities.

c. Such excavation will be considered and paid for as extra work.

3.1.2. Excavation:

3.1.2.1. Unclassified:

a. All excess suitable material excavated from the project site and not used for embankment shall be removed from the project site and become the property of Contractor.

b. Where material encountered within the limits of the work is considered unsuitable for embankment (fills) on any portion of this project work, such material shall be excavated as directed by Consultant and replaced with suitable fill material.

c. All unsuitable excavated material from excavation consisting of any type of debris (surface or buried), excavated rock, bedrock or rocks larger than six (6) inches in diameter, and boulders shall be hauled from the project site and disposed of by Contractor at Contractor’s expense.

d. Debris is defined as “anything that is not earth which exists at the job site.”

3.1.2.2. Muck:

a. Where excavation to the finished grade section results in a subgrade or slopes of unsuitable soil, Consultant may require Contractor to remove the unsuitable materials and backfill to the finished graded section with approved material.

b. Disposal of the unsuitable material and replacement with suitable material shall be at Contractor’s expense.

3.1.2.3. Good surface drainage shall be provided around all permanent cuts to direct surface runoff away from the cut face.

3.1.2.4. Rock:

a. Unless otherwise specified, rock shall be excavated to a minimum depth of 0.5 foot below subgrade within the limits of the channel area, and the excavation shall be backfilled with material shown on the drawings or as designated by Contractor.

b. Disposal of material and replacement with suitable approved material shall be at Contractor's expense.

3.1.3. Embankment Construction:

3.1.3.1. Embankment construction shall consist of constructing all fill areas, including preparation of the areas upon which they are to be placed, the placing and compacting of approved material within areas where unsuitable materials have been removed, and the placing and compacting of Embankment Material in holes, pits and other depressions within the project area.

3.1.3.2. Only approved materials shall be used in the construction of embankments and backfills.

3.1.3.3. Approved materials shall consist of clean onsite cohesive soils or approved imported soils.

3.1.3.4. Onsite cohesive soils or imported soils shall be placed and compacted in horizontal lifts, using equipment and procedures that produce recommended moisture contents and densities throughout the lift and embankment height. Onsite or imported cohesive soils shall be compacted within a moisture content range of two percent (2%) below, to two percent (2%) above optimum moisture content and compacted to ninety-five percent (95%) of the Maximum Standard Proctor Density (ASTM D698).

3.1.3.5. When embankment is to be placed and compacted on hillsides, or when new embankment is to be compacted against existing embankments, or when embankment is built one-half (1/2) width at a time, the slopes that are steeper than four-to-one (4:1) when measured longitudinally or at right angles to the adjacent ground shall be continuously benched over those areas where it is required as the work is brought up in layers.

a. Benching shall be well "keyed" and where practical a minimum of eight (8) feet. Each horizontal cut shall begin at the intersection of the original ground and the vertical sides of the previous cuts.

b. Material thus cut out shall be recompacted along with the new Embankment Material at Contractor's expense.

3.1.3.6. The ground surface underlying all fills shall be carefully prepared by removing all organic matter, scarification to a depth of eight (8) inches and recompacting to ninety-five percent (95%) of the Maximum Standard Proctor Density (ASTM D698) at optimum moisture content + or - two percent (2%) prior to fill placement.

3.1.3.7. Embankment Material shall be placed in horizontal layers not exceeding 8 inches (loose measurement) and shall be compacted to ninety five percent (95%) of the Maximum Standard Proctor Density (ASTM D698) at optimum moisture content + or - two percent (2%).

a. Effective spreading equipment shall be used on each lift to obtain uniform thickness prior to compacting.

b. As the compaction of each layer progresses, continuous leveling and manipulating required to ensure uniform density.

3.1.3.8. For embankments which serve as berms, the downstream portion shall be keyed into the subsurface soils a minimum of three (3) feet to enhance the stability of the slope.

3.1.3.9. Materials which are removed from excavations beneath the water table may be over the optimum moisture content and shall be required to be dried out prior to reusing them.

3.1.3.10. Cross hauling or other action as appropriate will be ordered when necessary to ensure that the best available material is placed in critical areas of embankments, including the top two (2) feet of all embankments. No additional payment will be made for cross hauling ordered by Consultant.

3.1.3.11. Frozen materials shall not be used in construction of embankments.

3.1.3.12. During the construction of the channels, the channel bottom shall be maintained in such condition that it will be well drained at all times.

3.1.3.13. Excavation or embankment (fill), and structural backfill work either completed or in a stage of completion that is either eroded or washed away or becomes unstable as a result of either rains, snow, snow melt, channel flows, or lack of proper water control shall be either removed and replaced, recompacted, or reshaped as directed by Consultant and in accordance with the drawings and specifications at Contractor's sole expense.

3.1.3.14. Removed unsuitable materials shall be hauled away and disposed of at Contractor's expense. Placing of replacement materials for removed unsuitable materials shall be purchased, placed, and compacted at Contractor's expense.

3.1.4. Proof Rolling:

3.1.4.1. Proof rolling with a heavy rubber tired roller shall be required, if designated on the drawings or when ordered by Consultant.

3.1.4.2. Proof rolling shall be done after specified compaction has been obtained. Areas found to be weak and those areas which failed shall be ripped, scarified, wetted if necessary, and recompacted to the requirements for density and moisture at Contractor's expense.

3.1.4.3. Proof rolling shall be done with equipment and in a manner acceptable to Consultant. Proof rolling as shown on the drawings or as ordered by Consultant shall not be measured and paid for separately, but shall be included in the unit prices bid for the work.

3.2 EXCAVATION AND BACKFILL FOR STRUCTURES

3.2.1. Poor foundation material for any of the work shall be removed, by Contractor, as

directed by Consultant.

1. Contractor will be compensated for removal and replacement of such materials in accordance with Muck Excavation.

3.2.2. Contractor is cautioned that construction equipment may cause the natural soils to pump or deform while performing excavation work inside and on footings, structural floor slabs, or other structure foundation areas.

3.2.3. Contractor shall remove and replace at Contractor's expense any foundation materials which are:

3.2.3.1. Saturated by either surface or subsurface flows because of the lack of adequate water control or dewatering work by Contractor;

3.2.3.2. Frozen for any reason; or

3.2.3.3. Disturbed by Contractor's work or caused to become unacceptable for foundation material purposes by means of Contractor's equipment, manpower, or methods of WORK.

3.2.4. Dewatering shall not be conducted by pumping from inside footings, structural floor slabs, or other structure foundation limits. This may decrease the supporting capacity of the soils.

3.2.5. Care shall be taken when excavating the foundations to avoid disturbing the supporting materials. Excavation by either hand or careful backhoe soil removal, may be required in excavating the last few inches of material to obtain the subgrade of any item of the concrete work.

3.2.6. Any over-excavated subgrades that are due to Contractor's actions, shall be brought back to subgrade elevations, as indicated on the DRAWINGS, by Contractor and at Contractor's expense in the following manner:

3.2.7. For over-excavations of two (2) inches or less, either backfill and compact with approved granular materials; backfill with one-half (1/2) inch crushed rock; or fill with concrete at the time of the appurtenant structure concrete pour.

3.2.8. For over-excavations greater than two (2) inches, backfill and compact with an approved granular material.

3.2.8.1. All granular footings, structural floor slabs, or other structure areas shall be compacted with a vibratory plate compactor prior to placement of concrete, reinforcing, or bedding materials.

3.2.8.2. Backfill, and fill within three (3) feet adjacent to all structures and for the full height of walls, shall be selected non-swelling material.

a. It shall be granular, well graded, and free from stones larger than two (2) inches.

b. Material may be job excavated, but shall selectivity be required as determined by CONSULTANT.

c. Stockpiled material, other than topsoil from the excavation, shall be used for backfilling unless an impervious structural backfill is specified.

d. The backfill material shall consist of either clean onsite granular material free of stones larger than two (2) inches in diameter with no more than twenty percent (20%) passing the No. 200 sieve, or equivalent imported materials.

e. All backfill around the structures shall be consolidated by mechanical tamping.

f. The material shall be placed in six-inch (6") loose lifts within a range of two percent (2%) above to two percent (2%) below the optimum moisture content and compacted to ninety-five percent (95%) of Maximum Standard Proctor Density (ASTM D698) for cohesive soils, or to seventy-five percent (75%) relative density for pervious material as determined by the relative density of cohesionless soils test, ASTM D4253.

3.2.8.3. Impervious structural backfill shall be placed in six-inch (6") loose lifts within a range of two percent (2%) above to two percent (2%) below the optimum moisture content and compacted to ninety-five percent (95%) of Maximum Standard Proctor Density for cohesive soils as determined by ASTM D698.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

1.1.1 The WORK of this section consists of controlling groundwater, site drainage, and storm flows during construction. CONTRACTOR is cautioned that the WORK involves construction in and around drainage channels, local rivers, and areas of local drainage. These areas are subject to frequent periodic inundation.

1.2 RELATED SECTIONS

1.2.1 The following is a list of SPECIFICATIONS which may be related to this section:

1.2.1.1 Section 01 35 43, Environmental Procedures;

1.2.1.2 Section 01 51 00, Temporary Utilities;

1.2.1.3 Section 02 24 10, Removals and Demolition.

1.3 REFERENCES

1.3.1 The following is a list of standards which may be referenced in this section:

1.3.1.1 ASTM International (ASTM):

D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft^3 (600 kN-m/m^3)).

1.4 SUBMITTALS

1.4.1 CONTRACTOR shall submit to the ENGINEER a Water Control Plan 2 weeks prior to execution of the PROJECT. At a minimum, the Water Control Plan shall include:

1.4.1.1 Descriptions of proposed groundwater and surface water control facilities including, but not limited to, equipment, methods, standby equipment and power supply, means of measuring inflow to excavations, pollution control facilities, discharge locations to be utilized, and provisions for immediate temporary water supply as required by this section.

1.4.1.2 Drawings showing locations, dimensions, and relationships of elements of each system.

1.4.1.3 Design calculations demonstrating adequacy of proposed dewatering systems and components.

1.4.1.4 If system is modified during installation or operation, revise or amend and resubmit Water Control Plan.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Onsite materials may be used within the limits of construction to construct temporary dams and berms. Materials such as plastic sheeting, sand bags, and storm sewer pipe may also be used if desired by CONTRACTOR.

PART 3 - EXECUTION

3.1 GENERAL

3.2.3 For all excavation, CONTRACTOR shall provide suitable equipment and labor to remove water, and keep the excavation dewatered so that construction can be carried on under dewatered conditions.

1. Water control shall be accomplished such that no damage is done to adjacent channel banks or structures.

2. Continuously control water during course of construction, including weekends and holidays and during periods of work stoppages, and provide adequate backup systems to maintain control of water.

3.2.4 CONTRACTOR is responsible for investigating and becoming familiar with all site conditions that may affect the WORK including surface water, potential flooding conditions, level of groundwater and the time of year the work is to be done.

3.2.5 CONTRACTOR shall conduct operations in such a manner that storm or other waters may proceed uninterrupted along their existing drainage courses.

1. By submitting a BID, CONTRACTOR acknowledges that CONTRACTOR has investigated the risk arising from such waters and has prepared BID accordingly, and assumes all of said risk.

3.2.6 At no time during construction shall CONTRACTOR affect existing surface or subsurface drainage patterns of adjacent property.

1. Any damage to adjacent property resulting from CONTRACTOR’s alteration of surface or subsurface drainage patterns shall be repaired by CONTRACTOR at no additional cost to the OWNER.

3.2.7 Pumps and generators used for dewatering and water control shall be quiet equipment enclosed in sound deadening devices.

3.2.8 CONTRACTOR shall remove all temporary water control facilities when they are no longer needed or at the completion of the PROJECT.

3.2.9 All excavations made as part of dewatering operations shall be backfilled with the same type material as was removed and compacted to ninety-five percent (95%) of Maximum Standard Proctor Density (ASTM D698) except where replacement by other materials and/or methods are required.

3.2 CONSTRUCTION

3.2.1 Surface Water Control:

3.2.1.1 Surface water control generally falls into the following categories:

a. Normal low flows along the channel.

b. Storm/flood flows along the channel.

c. Flows from existing storm drain pipelines.

d. Local surface inflows not conveyed by pipelines.

3.2.1.2 CONTRACTOR shall coordinate, evaluate, design, construct, and maintain temporary water conveyance systems.

a. These systems shall not worsen flooding, alter major flow paths, or worsen flow characteristics during construction. CONTRACTOR is responsible to ensure that any such worsening of flooding does not occur.

b. CONTRACTOR is solely responsible for determining the methods and adequacy of water control measures.

3.2.1.3 At a minimum, CONTRACTOR shall be responsible for diverting the quantity of surface flow around the construction area so that the excavations will remain free of surface water for the time it takes to install these materials, and the time required for curing of any concrete or grout. CONTRACTOR is cautioned that the minimum quantity of water to be diverted is for erosion control and construction purposes and not for general protection of the construction site.

a. It shall be CONTRACTOR’s responsibility to determine the quantity of water which shall be diverted to protect the WORK from damage caused by stormwater.

3.2.1.4 CONTRACTOR shall, at all times, maintain a flow path for all channels.

a. Temporary structures such as berms, sandbags, pipeline diversions, etc., may be permitted for the control of channel flow, as long as such measures are not a major obstruction to flood flows, do not worsen flooding, or alter historic flow routes.

3.2.2 Groundwater Control:

3.2.2.1 CONTRACTOR shall install adequate measures to maintain the level of groundwater below the foundation subgrade elevation and maintain sufficient bearing capacity for all structures, pipelines, earthwork, and rockwork.

a. Such measures may include, but are not limited to, installation of perimeter subdrains, pumping from drilled holes or by pumping from sumps excavated below the subgrade elevation.

b. Dewatering from within the foundation excavations shall not be allowed.

3.2.2.2 The foundation bearing surfaces are to be kept dewatered and stable until the structures or other types of work are complete and backfilled.

3.2.2.2.1 Disturbance of foundation subgrade by CONTRACTOR operations shall not be considered as originally unsuitable foundation subgrade and shall be repaired at CONTRACTOR's expense.

3.2.2.3 Contractor shall dispose of groundwater as follows:

3.2.2.3.1 Obtain discharge permit for water disposal from authorities having jurisdiction.

3.2.2.3.2 Treat water collected by dewatering operations, as required by regulatory agencies, prior to discharge.

3.2.2.3.3 Discharge water as required by discharge permit and in manner that will not cause erosion or flooding, or otherwise damage existing facilities, completed Work, or adjacent property.

3.2.2.3.4 Remove solids from treatment facilities and perform other maintenance of treatment facilities as necessary to maintain their efficiency.

3.2.2.4 Any temporary dewatering trenches or well points shall be restored following dewatering operations to reduce permeability in those areas as approved by CONSULTANAT.

END OF SECTION

PART 1 - GENERAL

1.1 WORK INCLUDED

1.1.1 This Section specifies the requirements for topsoil stripping, cutting, filling, and rough grading within the tolerances for finished grading, excavation, and backfilling, including removal and disposal of rocks or boulders or other unsuitable excavated materials uncovered by the Work, surplus to the Work, or not intended to be integrated into the Work.

1.2 RELATED WORK

1.2.1 Site Protection
1.2.2 Topsoil and Finish Grading

1.3 REFERENCES

1.3.1 Ontario Ministry of the Environment, Conservation and Parks (MECP): O. Reg. 406/19: On-Site and Excess Soil Management.

1.3.2 MECP: Ontario Regulation 153/04 Records of Site Condition - Part XV.1 of the Act.

1.3.3 MECP: Management of Excess Soil - A Guide for Best Management Practices.

1.3.4 General Specifications for the Management of Waste Excess Materials: OPSS.MUNI 180.

1.3.5 Construction Specification for Grading: OPSS.MUNI 206.

1.3.6 Construction Specification for Compacting: OPSS.MUNI 501.

1.3.7 Material Specification for Aggregates – General: OPSS.MUNI 1001.

1.3.8 Material Specifications for Aggregates – Miscellaneous: OPSS.MUNI 1004.

1.3.9 Material Specifications for Aggregates – Base, Subbase, Select Subgrade, and Backfill Material: OPSS.MUNI 1010.

1.4 SCOPE OF WORK

1.4.1 Provide all labour, materials and equipment necessary to strip the topsoil from the Work area, temporarily stockpile topsoil materials required by the Work, excavate, cut, fill and construct the required grade of the site within the tolerances for topsoil, finished surfaces and construction details all in accordance with the lines, grades, levels and the specifications herein.

1.4.2 Work of this section also includes movement and shaping of earth materials using equipment in sufficient quantities, types and sizes appropriate for the Work within the time frame required. Movement of materials on site by loading, hauling, placement, spreading, and grading.

1.4.3 Establish the location of all underground services, sewers and utility lines before commencing any excavation or demolition Work.

1.4.4 All existing site services (Hydro, Bell, Gas, Water, Cable, Sanitary and Storm) within the contract limit are to remain unless otherwise indicated.

1.4.5 Provide all site layout required for the execution of the Work including grade stakes indicating cut and fill on the site.

1.4.6 Unless otherwise indicated, remove surplus excavations, unsuitable materials, or contaminated materials from the site, including disposal to an approved off site waste disposal site arranged and paid for by the Contractor, in accordance with O. Reg. 406/19, On Site and Excess Soil Management (as applicable provisions of the regulation come into force) and the MECP's Management of Excess Soil – A Guide for Best Management Practices, updated April 4, 2019 and all Applicable Law.

1.4.7 Suitable excavated surplus material may be used in the construction of specific earth fills only when directed by the consultant. When approved, disposal of suitable fill excavated from the site and placed in designated fill locations within the site boundaries will be graded to the shapes or lines and grades provided to the Contractor by the consultant.

1.4.8 Complete and verify all compaction as per specifications.

1.4.9 Coordinate Work in this section with Work in all other sections.

1.5 PROTECTION

1.5.1 Prevent damage to existing grassed areas, trees, surface or underground utility and service components and lines which are to remain. Make good any damage at no cost to the City.

1.5.2 Protect all benchmarks, layout markers, survey markers and geodetic monuments.

1.5.3 Protect excavations or subgrades from all damage including inclement weather, vehicle or equipment movement.

1.5.4 Protect the Work at all times from the intrusion of water from any and all sources and maintain the site in a dewatered condition. Immediately remove any water collection on site to prevent damage to the Work and construction delays.

1.6 QUALITY ASSURANCE

1.6.1 Imported or Site Cut and Fill

1.6.1.1 The management and handling of any soils and/or excavated materials generated as part of the project shall comply with O. Reg. 406/19, On Site and Excess Soil Management (as applicable provisions of the regulation come into force) and the MECP's Management of Excess Soil – A Guide for Best Management Practices,

updated April 4, 2019 and all applicable law. In the event excess soils and/or excavated materials are to be disposed of outside of the project site, the Contractor shall complete any testing or sampling, as required, and comply with all environmental laws. Following the disposal of any excess soils and/or excavated materials outside of the project site, the Contractor shall provide, to the satisfaction of the City, confirmation that the Contractor has complied with all applicable law.

1.6.1.2 No soil shall be imported to the site without the prior written consent of the City. Any soil that may be permitted by the City should be accompanied by a letter from a Qualified Person (as defined in section 5 of O. Reg. 153/04 of the Environmental Protection Act) certifying that the soil has been tested in accordance with the sampling requirements of O. Reg. 153/04 and meets the applicable excess soil quality standards and leachate screening levels as outlined in O. Reg. 406/19, Rules for Soil Management and Excess Soil Quality Standards.

1.6.1.3 For areas requiring structural bearing capacities all fill placed in the Contract to meet OPSS Select Subgrade Material (SSM) Specifications compacted to a dry density of not less than 98% SPMDD) or as indicated otherwise on the drawings.

1.6.1.4 For areas requiring general filling, all fill placed in the Contract to be clean native or imported fill, suitable for the intended use, having no more than 2-3% moisture content.

1.6.1.5 Constructed earth fills or fill placed and incorporated into the Work to be tested for compaction to latest ASTM D698-12e2 for Standard Proctor Maximum Dry Density by an independent Geotechnical testing Consultant provided by the Contractor. Provide adequate notice to permit scheduling of testing operations. Ensure Work is ready for testing procedures.

1.6.1.6 Provide site supervision during construction and coordinate inspections with the Community Services Representative during grading operations.

1.6.1.7 Provide surveyed construction layout and grade control with grade stakes as necessary and any other necessary installation control devices and services required during construction or when requested to verify the Work with the consultant.

1.7 PRODUCT DELIVERY, STORAGE AND HANDLING

1.7.1 Stockpile existing fill materials in locations designated by the consultant.

1.7.2 Excavate, haul and place on site in designated locations all fill material as required. Remove and dispose of surplus excavations, unsuitable materials or contaminated materials from the site and dispose of off-site to an approved waste disposal site arranged and paid for by the Contractor.

1.7.3 Comply with all provincial regulations and the requirements of the MECP, MTO, City of Toronto, the Toronto and Region Conservation Authority, and any other authority having jurisdiction over the Work.

1.7.4 The Contractor will be responsible for any damage to Corporate or private property which may be incurred.

1.7.5 No storage of equipment or material will be permitted upon existing roads, parking lots or other existing hard surface areas, within or adjacent to the construction site unless approved by the owner and consultant.

1.8 SHORING AND BRACING

1.8.1 Comply with all Safety requirements, applicable local regulations and Occupational Health and Safety Act latest edition.

1.8.2 Shore and brace all excavations sufficiently to prevent caving in and to support existing structures, roads or services.

1.8.3 Ensure shoring is in accordance with local municipal and provincial regulations and obtain all necessary permits.

1.8.4 Erect warning signs and protective barriers in accordance with municipal and provincial regulations.

1.8.5 Make good any damage and be liable for any injury resulting from inadequate shoring or bracing.

1.9 WORK CONDITIONS

1.9.1 All Work in this section shall be undertaken in weather conditions to permit the construction of the subgrade in accordance with the construction details, the lines, grades, levels and the specifications herein, at a time that is suitable to obtain the proper results and is approved by the consultant.

1.9.2 Organize and carry out all operations to keep the site dewatered and prevent construction delays. Protect the Work at all times from the intrusion of water from any and all sources and maintain the site in a dewatered condition.

1.9.3 Dust control is the responsibility of the Contractor.

1.10 WARRANTY

1.10.1 Warranty all material and workmanship in this section from slipping, sinking, eroding, or any other change in grade for a period of one year from date of the Substantial Performance of Work.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1. Rough grading shall include the use of existing material on site. When on site material is deficient, the Contractor shall be required to import suitable fill material to prepare the subgrade cross sections, finished rough surfaces and construction details all in accordance with the lines, grades, levels.

2.1.2. Use imported clean earth fill that has been inspected and approved by the consultant and an independent Geotechnical testing Consultant provided by the Contractor. Earth fill must be of a sandy type and free of debris, organic materials, rocks larger than 25 mm in diameter, and free of all toxins that may inhibit growth of trees and sod.

2.1.3. At least 72 hours prior to placing any imported earth fill, and prior to obtaining approval from the consultant, the Contractor shall file with the consultant written notice of the location or locations from which he intends to obtain the material, together with written permission from the owner of the land from which the material is to be taken, and submit test results from an independent laboratory verifying that the fill is free of toxins, contaminants and suitable for the intended purpose.

2.1.4. Excavated or graded material is to be reviewed and approved by the consultant before use as fill. Protect such approved material from contamination at all times.

2.1.5. Contaminated fill or debris shall be removed from the site to an approved off-site waste disposal site in compliance with environmental laws, applicable standards, policies and guidelines, arranged and paid for by the Contractor.

2.1.6. General fill material: clean, free from debris, organic matter and other deleterious material, native or imported fill, suitable for the intended use, having no more than 2-3% moisture content for the intended compaction requirements, free from waste materials, debris, rubbish, building materials and refuse, muskeg, organic, foreign or cohesive matter, rocks larger than 50mm in diameter and other deleterious material all to the approval of the Geotechnical Consultant and the consultant.

2.1.7. Granular fill material shall conform in all respects with OPSS 1001 and 1010, latest edition.

2.1.8. Imported Suitable Fill shall meet the requirements for select subgrade material of OPSS 1010 except for the following revised gradation requirements.

MTO Sieve Designation	Percentage Passing by Mass
1.18 mm	10-90
300 micron	5-70
150 micron	2-40
75 micron	0-20

PART 3 - EXECUTION

3.1 PREPARATION

3.1.1. Stake out the extent requiring excavation and obtain the approval of the consultant before commencing Work. Report any discrepancies to the consultant prior to proceeding with any excavation.

3.1.2. Inspect site and verify with consultant items designated for demolition, removal, disposal, salvage, and items to remain are complete and removed from the Work area.

3.1.3. Prior to topsoil stripping and excavation, strip the original ground of sod, grasses and

plant matter by mechanical means from all areas designated for redevelopment. Dispose of all materials to an approved waste disposal site arranged and paid for by the Contractor.

3.1.4. Prior to rough grading, complete all site clearing, tree protection, site demolition and removals, sod removal as per specifications and drawings.

3.2 TOPSOIL STRIPPING

3.2.1. Prior to commencement of topsoil stripping operations review proposed stockpile locations with the consultant for approval. Strip topsoil and organic matter in areas as required by new construction by appropriate mechanical means. Remove unsuitable materials, materials designated for excavation and removal or excess materials from the site to an approved waste disposal site arranged and paid for by the Contractor.

3.2.2. Strip topsoil to its full natural depth from areas to receive new Work grading adjustments. Strip topsoil when dry enough to prevent contamination with sub-grade material.

3.2.3. Stockpile only amounts of suitable topsoil or organic materials required by the new Work in approved designated stockpile areas. Do not mix topsoil with subsoil or disturb any existing areas to remain. Stockpile in layers not exceeding 250 mm in depth. Maximum height of stockpiles not to exceed 4.5 metres. Maximum side slope of stockpiles not to exceed 2:1.

3.2.4. Do not handle topsoil in wet or frozen condition.

3.2.5. Any soil or fill storage piles shall not be located within a down slope area within ten metres to a roadway or drainage channel.

3.2.6. Prior to commencement of topsoil stripping operations review proposed stockpile locations with the consultant for approval. Strip topsoil and organic matter in areas as required by new construction by appropriate mechanical means. Remove unsuitable materials, materials designated for excavation and removal or excess materials from the site to an approved waste disposal site arranged and paid for by the Contractor.

3.2.7. Strip topsoil to its full natural depth from areas to receive new grading adjustments. Strip topsoil when dry enough to prevent contamination with sub-grade material.

3.2.8. Stockpile only amounts of suitable topsoil or organic materials required by the new Work in approved designated stockpile areas. Do not mix topsoil with subsoil or disturb any existing areas to remain. Stockpile in layers not exceeding 250 mm in depth. Maximum height of stockpiles not to exceed 4.5 metres. Maximum side slope of stockpiles not to exceed 2:1.

3.2.9. Do not handle topsoil in wet or frozen condition.

3.2.10. Any soil or fill storage piles shall not be located within a downslope area within ten metres to a roadway or drainage channel.

3.2.11. Upon completion of topsoil stripping and stockpiling operations review the subgrade with the consultant for approval. Do not commence rough grading operations until receipt of approval from the consultant.

3.3 FILLING WITH SUITABLE FILL

3.3.1. Fill disturbed Work areas with suitable fill material in uniform layers not exceeding 150mm lifts mm in depth prior to compaction to 98% SPMDD.

3.3.2. Shape and compact each layer to the line and cross section and density specified before placing subsequent layer. Remove stones greater than the fully compacted depth.

3.3.3. Compact each layer at a moisture content suitable for obtaining the required density.

3.3.4. Grade to a maximum tolerance of ± 50 mm.

3.4 GRADING

3.4.1 Allow for a minimum depth of 150mm topsoil.

3.4.2 Obtain the written approval of the consultant before using excavated material as fill.

3.4.3 Prior to placing fill material, scarify the existing grade to a minimum depth of 75mm.

3.4.4 Excavate, cut and fill, shape, backfill, load, haul and spread suitable excavated material on site as per specifications. Excavated materials to be placed as fills, which at the time of excavation are too wet, shall be spread, worked, dried and subsequently incorporated into the Work.

3.4.5 Where existing grade is to be raised, supply and place fill material approved by the Geotechnical Consultant and the consultant in progressive 150mm lifts (loose material depth). Compact each lift to 98% SPMDD or as per drawings before placing subsequent layers.

3.4.6 Provide finished rough grade parallel to finished grade allowing for the placing of the specified surface material and bases and to a tolerance of plus or minus 50mm. Compact prepared rough grade surfaces to 98% SPMDD.

3.4.7 Do all necessary rough grading and compacting to establish the subgrade150mm below the finished grade for sodded areas as shown on the grading plan.

3.4.8 Prior to placing fill over ground where the grade is raised, scarify surface to depth of 75mm. Maintain fill and existing surface at approximately same moisture content to facilitate bonding.

3.4.9 Do not disturb soil within branch spread of trees or shrubs to remain. Refer to Site Protection.

3.4.10 Leave no debris, boulders, roots, plant material or other foreign materials at graded surfaces.

3.4.11 Place fill in layers of 150mm maximum, and compact each to specified compaction density before placing next layer.

3.4.12 Compact filled and disturbed areas to Standard Proctor Density to ASTM D698-12e2 as follows:

i. 90% under areas to be grassed.
ii. 100% under areas to be paved or as indicated otherwise on drawings.

3.4.13 Establish subgrade parallel to finished grade and shape to permit drainage.

3.4.14 Establish uniform slopes between points for which finished grades are indicated on the drawings or between such points and existing grades. Round and smooth grades at top and toe of slopes and banks. Make all grade transitions smooth and consistent.

3.4.15 Avoid ponding or flooding of the sub-grade by providing temporary relief swales or ditches, as necessary. Maintain the subgrade in a dewatered condition at all times.

3.4.16 Obtain the approval of finished sub-grade prior to placing of topsoil.

3.5 EXCAVATIONS

3.5.1 Prepare survey and layout establishing base lines, control points, lines and grades complete with grade sheets and verify all requirements and laying tolerances. Stake out the locations of all items requiring excavation and obtain the approval of the consultant before commencing Work. Report any discrepancies to the consultant prior to proceeding with any excavation.

3.5.2 Excavate to the elevations and dimensions required. All depths detailed are shown depth after compaction.

3.5.3 Obtain the approval of the consultant for all excavations before proceeding with subsequent activities.

3.5.4 Where bearing capacity of the subsoil appears to be insufficient, obtain the written approval of the consultant to have soil investigations carried out.

3.5.5 Correct unauthorized excavation at no extra cost to the City.

3.5.6 Do not disturb soil within the branch spread of trees or shrubs that are to remain. If excavating through roots, excavate by hand and cut all roots with a sharp hand saw or chain saw. Where excavation results in the loss of more than 20% of the root system of any tree, have the plant material pruned by a qualified arborist to compensate for root loss. All costs incurred to correct and mitigate damage to existing plant material are the responsibility of the Contractor.

3.6 SURPLUS MATERIAL

3.6.1 Remove and dispose of unsuitable excavated materials and uncovered or exposed rocks, stones & debris in excess of specified sizes to an approved off-site waste disposal site location arranged and paid for by the Contractor.

3.6.2 It is the responsibility of the Contractor to examine the Place of the Work prior to commencement and take whatever measures he deems necessary to make his own determination of the quantities of cut, fill, and topsoil required for earthworks and site grading. The Contractor shall make his own estimate of quantities of fill or topsoil required by the Work and shall only stockpile those amounts as he has determined necessary.

3.6.3 Should the Contractor be deficient in his estimations creating a deficit he shall be responsible for rectifying the deficiency at no extra cost to the City.

3.6.4 Dispose of excavated material off site unless it is approved for use as fill material or backfilling material by the consultant. Material not approved for re-use on site (excess soil) shall be removed from the Work area by the Contractor and properly transported and disposed of off-site in compliance with environmental laws, applicable standards, policies and guidelines.

3.6.5 Wherever possible and as the Work will permit, the Contractor, working with the City of Toronto, will attempt to make every effort to retain suitable excavated materials on-site through balancing the cut and fill Work. Should the Work allow for uncompromised solutions to cut and fill balancing, the Contractor shall not be required to remove and dispose of the resultant excess soil.

3.6.6 The Contractor shall be solely responsible for identifying and selecting appropriate haulers, receivers, recyclers and/or disposal sites, landfills or facilities (the Authorized Off-Site Disposal Facilities) required to complete the Work. The Contractor is also solely responsible to ensure that haulers and Authorized Off-Site Disposal Facilities possess a current certificate of approval or an environmental compliance approval issued by the MECP, if applicable, and shall provide written confirmation from the Authorized Off-Site Disposal Facility of acceptance of the excess soil.

3.6.7 Prior to the off-site removal of excess soil and no later than 5 business in advance of the removal activities, the Contractor shall submit in writing a letter listing the names of the Authorized Off-Site Disposal Facilities which the Contractor will utilize to receive excess soil from the site. No facility may be substituted for the one(s) designated in the Contractor’s submittal without the consultant’s prior approval.

3.6.8 The Contractor shall be solely responsible, at its cost, to arrange, or have a Qualified Person arrange (as defined in section 5 of O. Reg. 153/04 of the Environmental Protection Act), for the laboratory testing (by an MECP accredited laboratory), of the excess soil that may be required by the Authorized Off-Site Disposal Facility to accept those materials.

3.6.9 The Contractor shall be responsible for obtaining an original weigh/disposal ticket from the Authorized Off-Site Disposal Facility for every load disposed of indicating the ticket number, date, time, gross weight, tare weight and net weight of each vehicle disposing of the excess soil.

3.6.10 On completion of the project and prior to Substantial Performance, submit to the consultant three (3) copies of a Letter of Compliance in English for the management and disposal of the excess soil.

3.6.11 The Letter of Compliance must be signed by a Qualified Person (as defined in section 5 of O. Reg. 153/04 of the Environmental Protection Act).

3.6.12 The Letter of Compliance must include, at a minimum:

3.6.12.1 Name, address and Environmental Compliance Approval (ECA) Number, if applicable, of Authorized Off-Site Disposal Facility.

3.6.12.2 Copy of the written confirmation from the Authorized Off- Site Disposal Facility of the acceptance of excess soil.

3.6.12.3 Original weigh/disposal tickets from offsite disposal facilities for every load disposed of indicating:

a) Ticket number;
b) Date;
c) Time;
d) Gross, tare and net weight of each vehicle disposing of excess soil.

3.6.13. Certification that all management and disposal of excess soil has been complete in accordance with the requirements specified in the Contract Documents.

3.7 BACKFILLING

3.7.1 Do not commence backfilling until Work has been approved by the consultant.

3.7.2 Ensure areas to be backfilled are free of debris, snow, ice, water or frozen ground.

3.7.3 Place specified fill materials in continuous horizontal layers not exceeding 150mm (6") loose depth and compact to 100% SPMDD or as per drawings.

3.7.4 Make good any settlement caused by improper or inadequate compaction.

3.8 TESTING

3.8.1 Inspection and testing will be required of all materials and works as called for in the technical specification sections and is the responsibility of the Contractor. The testing Consultants will be required to provide quality control of the Work and all materials incorporated into the Work to ensure compliance of the Work with the requirements of the drawings, details and construction specifications.

3.8.2 In addition to the technical specifications for testing of the Work of this section the following shall apply:

3.8.2.1 Compaction testing required by the Work of this section shall be performed:
- at no less than a 50 m grid for subgrade preparation for general soft landscape areas;
- for each lift and change in material in the cross section of the grade, base or backfill being constructed at the proper spacing.

3.8.3 The owner and consultant reserve the right to have additional soil compaction tests undertaken to verify compliance with the specifications.

3.9 ADJUST AND CLEAN

3.9.1 Prior to any surfacing works or sodding, clean the site of all garbage, paper, sticks, and stones over 25mm in diameter.

3.9.2 Leave no debris, rocks, boulders rubble or other foreign material at rough graded surfaces.

3.9.3 Promptly as the Work proceeds and upon completion, clean up and remove from the site rubbish and surplus material resulting from the Work in this section.

3.9.4 Clean and remove spills and overfilling without delay from Work areas and any other surfaces around the Work site.

3.9.5 Any areas which have been rutted, damaged or disturbed are to be reinstated to the condition required by the specification without delay. The method of repair will be to the discretion of consultant to ensure the site is restored to no less than the approved condition.

3.10 MAINTENANCE

3.10.1 Coordinate and verify that all related Works in other sections have been completed and that all trades still requiring access to the site will not disturb the completed grades. Ensure that the construction access for the remaining operations is clearly understood and all damage, including over-compaction caused by equipment required to access the construction site, is corrected to meet specifications.

3.11 GRADING GUIDELINES

3.11.1 Surface Drainage

All surface drainage shall be collected internally to catch basins within the development boundaries unless specified otherwise. Drainage from surrounding properties will not be accepted on park property. Surface drainage should be directed towards catch basins using swales and culverts. Surface drainage should not be directed across pathways and sidewalks.

Acceptable surface runoff grades are as follows:

Tennis	1.0% slope

All other sports facilities	min. 1.5% slope, max. 2.0% slope
Overland drainage swales	min. 2.0% slope
Pedestrian Pathways	max. 8.0% longitudinal slope, 2% cross slope
Graded berms to be mowed	max. 25% slope
Graded berms or sloped grades not to be maintained	max. 33% slope

END OF SECTION

PART 1 - GENERAL

1.1 WORK INCLUDED

1.1.1 This section specifies the requirements for stockpiling, supplying, placing topsoil, fine grading and soil testing.

1.2 REFERENCES

1.2.1 Construction Specification for Topsoil: OPSS 570.

1.3 SCOPE OF WORK

1.3.1 Provide all labour, materials and equipment necessary to test for and provide proper soil conditions for the intended purposes, construct and fine grade the finished grade and finished surfaces of the site all in accordance with the lines, grades, levels in accordance with the specifications herein.

1.3.2 The Work may involve soil and existing turf renovations including fine grading.

1.3.3 Provide all site layouts required for the execution of the Work, including grade stakes indicating finished elevations on the site.

1.3.4 Coordinate Work in this section with Work in all other sections.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

1.4.1 All materials delivered to the site shall be stored in a dry weatherproof storage place, and shall be protected from damage by heat, moisture, rodents or weather until the time of installation.

1.4.2 Use imported topsoil or topsoil mixes as specified.

1.5 WORK CONDITIONS

1.5.1 All Work in this section shall be undertaken in suitable weather conditions and at a time that is approved by the consultant.

1.5.2 Schedule working of topsoil and finish grading to permit sodding and planting operations under optimum conditions.

1.6 QUALITY ASSURANCE

1.6.1 In utilizing site topsoil for the Work, the Contractor accepts all responsibility for satisfying the provisions, conditions and specification requirements to provide topsoil surfaces which are free of stone, rubble and debris and any other deleterious materials.

1.6.2 Imported topsoil shall be tested as outlined under item 3.4 Testing.

1.6.3 Topsoil from a new source shall not be used until it has been tested and approved for use in accordance with the procedures under item 3.4.

1.7 WARRANTY AND REPLACEMENT

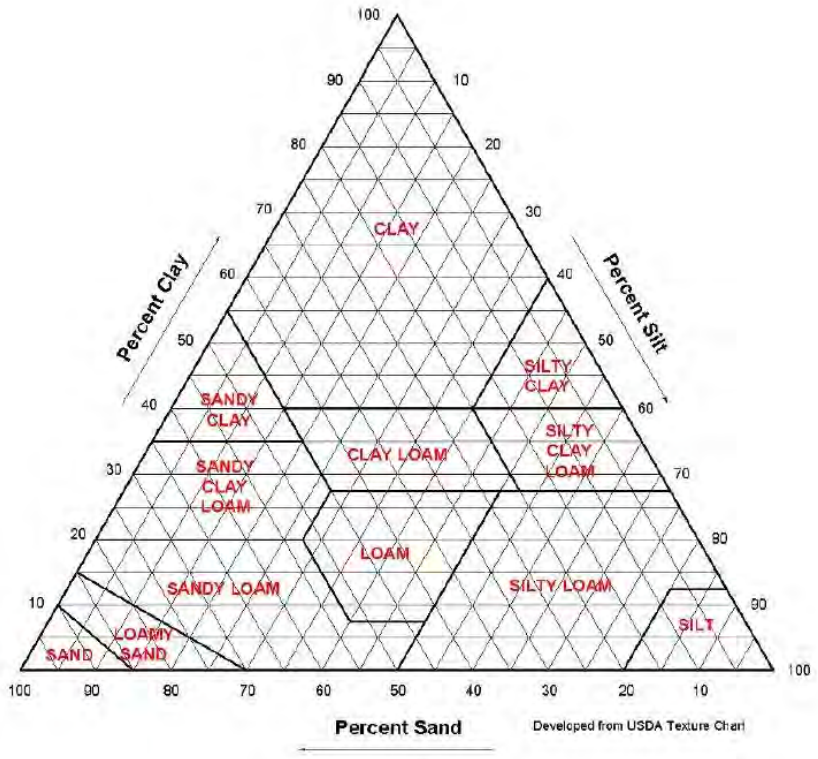
1.7.1 Warranty all material and workmanship in this section from slipping, sinking, eroding, or any other change in grade for a period of one year from date of the Substantial Performance of Work.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Existing Topsoil: Existing site topsoil shall be used for Work of this section where possible. Deficiencies in quantity of topsoil shall be supplemented by importing topsoil.

2.1.2 Imported Topsoil: A fertile, friable, natural loam containing between 4% and 8% organic matter, and capable of sustaining vigorous plant growth, free of subsoil, roots, and stones over 25mm diameter, free of weeds, having a pH ranging from 6.0 to 7.0, and containing less than 25% content of clay and less than 40% content of silt, with the remainder to be sand and organic matter. Refer to the USDA Soil Textural Chart for texture definitions. All imported topsoil shall be screened using a maximum 35mm size screen, & must be certified to be free of weeds (seeds, roots, or propagules).



2.1.3 Soil Mulches and Organic Amendments: Mulches are restricted to paper and wood residues. Organic amendments may include manure, compost or sewerage sludge.

PART 3 - EXECUTION

3.1 PREPARATION

3.1.1 Grade subgrade, eliminating uneven areas and low spots, ensuring positive drainage. Remove debris, roots, branches, stones in excess of 25 mm diameter, and other deleterious materials. Remove subsoil that has been contaminated with oil, gasoline, calcium chloride or any other deleterious elements. Dispose of removed materials off site.

3.1.2 Cultivate and scarify entire area which is to receive topsoil to depth of 75 mm. Repeat cultivation in those areas where equipment used for hauling and spreading has compacted the subgrade.

3.1.3 Schedule meeting and review prepared rough grade with the consultant prior to spreading any topsoil.

3.2 SPREADING OF TOPSOIL

3.2.1 Topsoil that has been spread prior to the rough grade approval by the consultant may be subject to removal and reinstallation to permit the specified inspection and approval to be conducted. All associated costs to correct or to verify the rough grade preparation, including any removal and reinstallation, will be borne by the Contractor.

3.2.2 Spread topsoil with adequate moisture in uniform layers over prepared subgrades or backfill only during dry weather when conditions are dry and unfrozen.

3.2.3 Unless otherwise indicated, apply 150mm minimum layer of topsoil (measured after compaction) to all surfaces intended for sodding, seeding, planting, or naturalizing.

3.2.4 Keep topsoil below finished grade for sodded areas to allow for thickness of sod after placement and compaction.

3.2.5 Manually spread topsoil around trees and obstacles where necessary to prevent damage.

3.3 FINISH GRADING

3.3.1 Fine Grade mechanically and by hand all Work areas to the contours and elevations in accordance with the directions provided by the consultant, with allowance for depth of sod to be installed. Eliminate rough spots and low areas to ensure positive drainage. Make all grade transitions smooth, consistent and uniform.

3.3.2 Fine grading shall be completed and trimmed to the specified lines and levels to a vertical tolerance of ±25mm. Should the Contractor exceed this tolerance he shall bring the grades and lines of all surfaces within the specified tolerance at his own expense.

3.3.3 Roll the topsoil with a 50kg roller to compact the surface for areas to be sodded, leaving the surface smooth, uniform, and clean from sticks and stones over 25mm in

diameter, firm against deep footprints, and with a fine, loose texture.

3.3.4 Finished grades for topsoil shall be approved by the consultant prior to sodding. Sodding that has been installed prior to the finished grade approval may be subject to removal and reinstallation to permit the specified inspection and approval to be conducted. All associated costs with the removal and reinstallation shall be borne by the Contractor.

3.4 TESTING

3.4.1 Arrange and pay for testing of imported topsoil. Testing to be carried out by an independent testing company and soil fertility specialist as approved by the consultant. Test for clay, sand and silt content (percentage and particle size), dry density, drainage coefficient, growth inhibitors, soil sterilant, trace elements, Atrazine, N, P, K, Mg, soluble salt contents, organic matter content and pH value. Ensure the imported soil is free of weeds.

3.4.2 Provide a minimum of 5 test samples for imported topsoil from each topsoil source. Obtain recommendations for the quantities, application rates, and type of fertilizers needed to eliminate the deficiencies for the intended use made evident by the testing.

3.4.3 Communicate the intended use of the topsoil to the testing laboratory.

3.4.4 Provide topsoil results at least 3 weeks prior to delivery to the site of imported topsoil.

3.4.5 Submit the results of soil testing and fertilizer recommendations to the consultant for review and approval before commencing with the installation work.

3.4.6 Soil nutrient and amendments shall be applied for adjusting imported topsoil to meet the above testing recommendations.

3.4.7 Alterations to the recommended schedule and timing for application of soil nutrient and amendments due to delays by the Contractor in coordinating the required testing in advance of the topsoil operations will not be accepted.

3.5 MAINTENANCE

3.5.1 Maintain all grades until final acceptance of completed Works. Avoid damaging completed finished grades, including subtrades accessing the site.

3.5.2 Maintenance shall include all filling and regrading to retain grades at required elevations.

3.6 CLEAN-UP

3.6.1 Promptly, as the Work proceeds and upon completion, clean up and remove from the site rubbish and surplus material resulting from the Work in this section.

3.6.2 Any areas which have been rutted, damaged or disturbed are to be reinstated to the condition required by the specification without delay. The method of repair will be to the discretion of consultant to ensure the site is restored to no less than the approved condition.

3.6.3 Surplus and excavated materials shall be removed immediately from the site by the Contractor.

3.6.4 Spills and overfilling shall be cleaned and removed without delay from Work areas and any other surfaces around the Work site.

3.6.5 Coordinate and verify that all related Work in other sections has been completed and that all trades still requiring access to the site will not disturb the completed fine grades. Ensure the construction access for remaining operations is clearly understood and all damage, including over-compaction caused by equipment required to access the construction, is corrected to meet specifications.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

1.1.1 This section describes the labour, materials, and installation requirements necessary to complete the seeded turf planting related items as indicated or specified.

1.2 RELATED WORK

1.2.1	All Division 1	Specification Sections
1.2.2	Section 32 22 13	Rough Grading
1.2.3	Section 32 91 19	Site Topsoil and Finish Grading
1.2.4	Section 32 92 23	Sodding

1.3 PRODUCT DATA

1.3.1 Submit product data in accordance with Section - **Submittals**.

1.3.2 Provide product data for:

.1 Seed
.2 Mulch
.3 Fertilizer

1.4 DELIVERY, STORAGE AND ACCEPTABILITY

1.4.1 All grass seed hydraulic mulch, fertilizers and other related materials, where required, shall be stored in a dry, weatherproof area and shall be protected from damage by heat, moisture, rodents, or other elements until the time of seeding or use. All material shall be labelled by grower or manufacturer as separate items and shall not be removed or defaced.

1.4.2 Bulk deliveries of seed shall be accompanied with delivery tickets specifying percentage germination, purity, and noxious weed seed content.

1.5 MEASUREMENT FOR PAYMENT

1.5.1 Seeding will be measured as per square metre unless otherwise stipulated in the Bid Document – Price Schedule.

1.6 JOB CONDITIONS

1.6.1 The turf areas will be free of waste or debris developed by other trades. Any discrepancy from such conditions shall be reported to the Contractor before beginning construction.

1.7 GRADING

1.7.1 The Contractor shall grade all turf areas as noted on the Contract Document

drawings;

1.7.2 Fine grade all turf areas eliminating rough or low areas to ensure positive drain age.

PART 2 - PRODUCTS

2.1 GRASS SEED MIXTURE

2.1.1 Consult the Consultant to determine specific requirements for seed mixture application. Fertilizer application rates are to be as recommended in the soils test report.

2.1.2 Grass Seed shall be Certified Canada No. 1 Grade to Government of Canada, Seeds Regulations and having minimum germination of 85% and minimum purity of 97%.

2.1.3 Seed mixtures shall be suited to the climate, soil conditions and type, orientation, sun exposure, terrain, establishment and maintenance conditions under which they are to be grown.

2.1.4 The mixture shall be mixed and supplied by a recognized certified seed supplier.

2.2 SEED LABELLING

2.2.1 All seed and seed mixes shall be in the original sealed package with the original legible label securely attached.

2.2.2 Labelling shall conform to the requirements of the Canadian Seeds Act and Regulations. Each package shall be labelled to show:

1. The name and address of the seed supplier.
2. The seed species, or the name of the seed mix and the various individual seed species that comprise the seed mix and the percentage by mass.
3. The grade of the seed or seed mix.
4. The supplier’s name and lot designation number.
5. Mass in kilograms
6. Date and location of bagging
7. Year of production

2.2.3 Seeding mix specification for **Upland Naturalization Seed Mix**.

40% Elymus riparius (Riverbank Wild Rye)
25% Oenethera biennis (Evening Primrose)
10% Rudbeckia hirta (Black Eyed Susan)
5% Euthamnia graminifolia (Grass Leaf Goldenrod)
5% Carex granularis (Open Field Sedge)
2% Solidago Canadensis (Canada Goldenrod)
2% Asclepsis syriaca (Common Milkweed)
1% Aster cordifolius (Heart Leaved Aster)
1% Aster novae-angliae (New England Aster)

1% Anenome canadensis (Canada Anenome)
1% Clematis virginiana (Virgins Bower)
1% Monarda fistulosa (Wild Bergamot)

Seed rate to be 26 kg/Ha.

To be spread with Lolium multiflorum cover crop. Cover crop seed rate to be 22 kg/Ha. Ideally seed in Fall.

2.2.4 Seeding mix specification for **Tableland parks**:

48% Creeping Red Fescue
15% Majestic Kentucky Bluegrass
13% Palmer Perennial Rye Grass
11% Gator Perennial Rye Grass
7% Fortress Creeping Red Fescue
6% Yorktown II Perennial Rye Grass

2.2.5 Seed mix specification for **Valleylands**:

10% White Clover
15% Fiesta Perennial Rye Grass
10% Mustang Tall Fescue
10% Creeping Red Fescue
15% Timothy
10% ' Dormie' Kentucky Blue Grass
30% Bird’s Foot Trefoil

2.2.6 Seed mix specification for **Road Buffers:**

25% RFT Tall Fescue (Festuca arundiancea ‘Rhizomatous’)
30% Perennial Rye Grass (Lolium perenne)
25% Creeping Red Fescue (Festuca rubra)
5% Kentucky Blue Grass (Poa pratensis)
5% White Clove (Tripofolium repens)
10% Bird’s Foot Trefoil (Lotus corniculatus)

2.2.7 Seed rate as per manufacturer’s recommendation.

2.2.8 Seed will be shipped in containers with original tags from recognized supplier.

2.3 MECHANICAL SEEDING

2.3.1 Use equipment suitable for specified area to approval of Consultant. Where area allows, the "Brillion" type equipment is recommended.

2.3.2 Use manually operated broadcast seeder only for small specific locations and areas inaccessible to “Brillion” seeding.

2.3.3 Sow at the rate of as per manufacturer's recommendation during calm weather and when soil moisture content is adequate for germination.

2.3.4 Sow seed in two directions, 50% of seed in one direction and remaining 50% of seed at right angles to first seeding pattern, using same method of seeding.

2.3.5 Cover broadcasted seed by raking and chain harrowing.

2.3.6 Hydro-Mulching:

2.3.6.1 Mix fibre mulch with water according to manufacturer's recommendations, and apply to seeded areas at a minimum rate of 1600 kg/ha (16kg/100m2). Apply 2250 kg/ha (22.5 kg/100m2) on areas subject to wind and water erosion.

2.3.6.2 Add and mix tackifier into slurry of water and fibre mulch and apply as required according to manufacturer's instructions and recommendations.

2.3.6.3 Using hydro-mulching equipment, apply fibre mulch slurry mixture within twenty-four (24) hours of mechanical seeding. Achieve uniform coverage after application.

2.3.7 Roll seeded grass with roller not exceeding 50 kg where uneven soil conditions warrant.

2.3.8 Water entire area with fine spray after each area has been sown. Apply water only where application of water is practical and will not interfere with other Work.

2.3.9 Apply enough water to ensure penetration of at least 50 mm, avoid washing out seeds.

2.4 HYDRO-SEEDING AND MULCHING

2.4.1 Proceed with hydro-seeding only after final grade has been approved by Contractor.

2.4.2 No Hydro-seeding shall be performed when wind speeds exceed 10 km/h, over frozen soil, or on ground covered in snow, ice or standing water. Hydro-seed only when conditions are favorable for successful seed germination.

2.4.3 Do not spray onto structures, signs guardrails fences, plant material, utilities and other than surfaces intended. Clean-up immediately, any material sprayed where not intended to the satisfaction of the Consultant.

2.4.4 One- Step Hydraulic Seeding and Mulching

2.4.4.1 Thoroughly mix grass seed, fertilizer, fibre mulch and water to obtain following slurry mixture and application rates per hectare.

1. Grass Seed – 300 kg/ha.
2. Fertilizer – (12-51-0) at 300 kg/ha.
3. Fibre Mulch – minimum 1600 kg/ha or 2250 kg/ha on areas subject to wind and water erosion.

4. Water – minimum 32,000 litres and to fibre mulch manufacturer's recommendations.

2.4.4.2 Add tackifier directly into slurry mixture and thoroughly mix at rate recommended by manufacturer. Apply tackifier as required according to manufacturer's instructions.

2.4.4.3 Using appropriate hydraulic hydro-mulching equipment, apply slurry mixture uniformly at optimum angle of application.

2.4.4.4 Use proper nozzles for application and provide hose extensions to propel mulch slurry to inaccessible areas.

2.4.4.5 Agitate slurry mix consistently during spraying to keep it homogeneous and avoid blockage to pipes.

2.5 TERRA SEEDING

2.5.1 Terra Seeding Installation contractor must have three (3) years proven experience in the application of Terra Seeding using a Blower Truck.

2.5.2 A legible, valid Seed Analysis Certificate from a Seed Testing Laboratory approved by the Canadian Food Inspection Agency (CFIA) for all single seed species and all seed mixtures shall be provided to the Consultant twenty-four (24) hours prior to any seeding operations. The Seed Analysis Report shall stipulate the seed supplier's lot designation numbers.

2.5.3 Test Results from the Seed Analysis Certificate shall specify germination and purity for each seed species of the mix as well as the seed mix composition expressed as a percentage of each see species by mass for each seed mix specified in the contract. Test results shall meet or exceed the value for the various seed mixes as specified by the consultant.

2.5.4 Materials:

2.5.4.1 Permanent Seed Mixes: Use permanent seed mixes as specified on drawings.

2.5.4.2 Annual Nurse Crop Seed: Nurse crop seed shall be a cereal grain such as Annual Ryegrass, Fall Rye Grain or Winter Wheat Grain unless otherwise approved by the Consultant.

2.5.4.3 Fertilizer: Shall comply with the provisions of the Canadian Fertilizers Act and Fertilizer Regulations. Fertilizer shall be supplied in original bags bearing the manufacturer's original label indicating mass and analysis. All fertilizer shall be in granular form, dry, free flowing and free from lumps, and applied at rates specified by the Consultant.

2.5.4.4 Composted Topsoil: Shall be pre-mixed and shall consist of a minimum 60% compost material. The composted topsoil may be amended by the additional of concrete sand and peat loam. Concrete sand shall be added to improve aeration and soil structure. Peat loam shall be added to adjust the pH of the compost and to make the composted topsoil lighter and easier to blow. Both amendments shall be

added at the discretion of the Contractor to ensure that the composted topsoil meets the material specification and is suited for distribution by a pneumatic blower. Once mixed, composted topsoil material shall consist of particles where 100% of the material is able to pass through a 25 mm sieve.

2.5.4.5 Compost: Shall be derived from a well-composted green organic waste matter from an approved source. All compost material shall meet the Ontario Ministry of the Environment's Interim Guidelines for the production and Use of Aerobic Compost in Ontario definition for Type A compost and shall be supplied from composting sites certified to meet the Ontario Ministry of the Environment's Compost Regulation 101.

2.5.4.6 Concrete sand shall have a pH range from 7.7 to 8.0 with a mid-range of 7.8 and shall meet gradation requirements for concrete sand as described in OPSS.

2.5.4.7 Peat loam shall consist of a minimum 50% organic matter and equal parts sand, silt and clay. Peat loam shall be suitable for horticultural purposes. Shredded particles shall not exceed 16 mm in size.

2.5.5 Equipment:

2.5.5.1 Pneumatic Blower Truck: Shall be a custom manufactured, fully integrated, truck mounted unit. The blower truck shall be equipped with a computer-calibrated seed injection system and shall be capable of uniformly applying composted topsoil and seed at a rate greater than 0.25 cubic meters of material per minute. The blower truck shall also be equipped with an application hose capable of extended 90 meters from the blower truck unit.

2.5.6 Operational Constraints:

2.5.6.1 The composted topsoil and seeding operation shall not commence until a legible, valid Seed Analysis Certificate and a legible, valid signed declaration from the compost supplier has been approved by the Consultant.

2.5.6.2 The composted topsoil and seeding operation shall not commence until the Consultant has approved the surface preparation and the layout of permanent seed mixes.

2.5.6.3 The composted topsoil and seeding application and or the re- application shall not be carried out under adverse field conditions such as high wind, frozen soil or soil covered with snow, ice or in areas of standing water to a concentrated flow of water.

2.5.6.4 The Contractor shall maintain the site and control erosion until conditions permit application or re-application of seed and compost topsoil.

2.5.6.5 The surface shall be prepared not more than seven (7) calendar days before the seeding operation. No seeding or composted topsoil application shall come in contact with the foliage of any trees, shrubs, or other vegetation. No seed or composted soil application shall come in contact with water bodies.

2.5.7 Application Rates for Composted Topsoil:

2.5.7.1 Depending of the slope gradation, depth and composted soil, seed shall be as follows:

0 - 5% slope: 10-15 mm. depth
5 - 10% slope: 15-20 mm. depth
10 - 25% slope: (4:1) 20-25 mm. depth.
25 - 35% slope: (3:1) 25-40 mm. depth
35 - 45% slope: 40-50 mm. depth

2.5.7.2 Composted Topsoil and Seed Application

1. Prior to the application of the composted topsoil and seeding, the Contractor shall ensure that the pneumatic blower has been properly calibrated to provide the specified amounts of seed and that the blower can adequately uniformly apply composted topsoil and seed at a rate greater than .025 cubic meters of material per minute.

2. Once the blower has been calibrated, the Contractor shall apply composted topsoil and seeding uniformly ay specified depths to all areas identified for cover in the contract drawings or as directed by the Consultant.

2.6 WATER

2.6.1 Water used should be potable and shall be free of impurities that would inhibit germination and growth or may be harmful to the environment.

2.7 SEED PROTECTION ON SLOPES AND DITCHES

2.7.1 Erosion Control Blanket: where applicable, refer to plans for extent.

2.7.1.1 Bonterra S1 Erosion Control Blanket or approved alternate: 100% weed free wheat straw .50 lb./yd^2. Netting on top side made of photo-degradable polypropylene or alternate with mesh openings of approximately (13 mm x 13 mm). Blanket sewn with biodegradable or photo-degradable thread on 50 mm centres or approved alternate.

2.7.1.2 Cover all prepared and seeded slopes 3:1 or steeper with erosion control blanket.

2.7.1.3 Unroll blanket either horizontally or vertically to the slope without stretching or pulling.

2.7.1.4 Lay blanket smoothly on soil surface. Overlap adjacent sections of blanket minimum 100 mm and use metal staples.

2.7.1.5 Secure blanket to ground with staples in accordance with the erosion control blanket manufacturer’s instructions.

2.7.1.6 Minimize damage to seedbed during installation of blanket. Re-grade by hand raking as required, to correct any damage.

2.7.1.7 In ditches and swales, unroll blanket in the direction of flow. Overlap adjacent sections of blanket minimum of 100 mm with upstream section on top and stapled. Follow manufacturer's installation recommendations.

2.8 PROTECTION OF SEEDED AREAS - GENERAL

2.8.1 Immediately after seeding provide adequate protection against erosion, pedestrian and vehicular traffic damages. Protect newly seeded areas along walkways using bright coloured ribbon or fencing when necessary. Remove protection after seeded areas become established or when directed by the Consultant.

2.8.2 Keep site well drained and landscape excavations dry.

PART 3 - EXECUTION

3.1 WORKMANSHIP

3.1.1 Do not perform Work under adverse field conditions such as frozen ground or ground covered with snow, ice or standing water.

3.2 PREPARATION OF SURFACES

3.2.1 At the time of seeding, all top soiled areas designated for seeding shall be free from erosion and shall have a fine graded, uniform surface free of humps and hollows. The surface shall be uniformly cultivated with agricultural implements to a minimum depth of 50mm and shall not have surface stones greater than 50mm in diameter, weeds or other unwanted vegetation. Ensure areas are free of deleterious and refuse materials.

3.2.2 Soil to be loose, friable and suitable as a seedbed to germinate seed, free of humps and hollows and deleterious materials.

3.2.3 Obtain approval of topsoil grade and depth from the Consultant before starting seeding.

3.3 AREA AND LAYOUT

.1 The locations of the different, permanent seed mixtures and composted topsoil shall be staked out on the ground surface in accordance with the contract documents. Stakes shall be used to indicate the limits of each type of seed mix.

3.4 SEEDING

3.4.1 Schedule seeding to be carried out when seasonal conditions are likely to ensure successful germination and a continued growth of all species of seed in the grass mixture establishment. All seeding shall be done during calm weather and on soil that is free of frost, snow and standing water.

3.4.2 Seed shall be applied by Mechanical Dry Seeding, Terra Seeding, or Hydraulic Seeding unless otherwise specified.

3.4.3 Sow seed uniformly at the rate as per manufacturer's recommendations.

3.4.4 Seed between August 15th and September 15th, and between April 15th and May 1st unless otherwise directed by the Consultant.

3.4.5 Blend applications into adjacent grass areas or sodded areas previous applications to form uniform surfaces.

3.4.6 Embed seed into soil to depth of 5 mm within one hour of sowing.

3.4.7 Roll area immediately with water ballast type idler prior to watering.

3.4.8 Install Erosion Control Material as per manufactured instructions in areas as shown on plans and details.

3.4.9 Protect seeded areas against damage by using temporary protective hoarding and signage to protect newly seeded areas from damage including erosion, pedestrian and vehicular traffic or wild life. Remove this protection after lawn areas have been accepted by the Consultant.

3.5 ESTABLISHMENT

3.5.1 Perform following operations from time of seed application until Preliminary Acceptance:

3.5.1.1 Repair and reseed dead or bare spots to allow establishment of seed prior to Preliminary Acceptance.

3.5.1.2 Cut grass to 40 mm whenever it reaches height of 60 mm.
Remove clippings which will smother grass.

3.5.1.3 Fertilize seeded areas after first cutting at the recommended rate per hectare as per testing agency. Spread half of required amount of fertilizer in one direction and remainder at right angles and water in well. Postpone fertilizing until following spring if application falls within four weeks period prior to expected end of local growing season.

3.5.1.4 Eliminate weeds by mechanical means.

3.6 MAINTENANCE

Perform the following operations from time of installation to acceptance and until the end of warranty period:

3.6.1 Apply water in sufficient quantities to maintain optimum soil moisture level for germination and continued healthy growth of grass. Promptly repair and reseed any damage that occurs through washout of soil.

3.6.2 Areas with no irrigation system: supply labour, hoses and attachments necessary to provide adequate watering to prevent grass and underlying soil from drying out.

3.6.3 Provide clean water and water hauling vehicle with proper attachments to provide

efficient and adequate watering of seeded areas when necessary.

3.6.4 Provide weed control in newly seeded areas by mowing when required or directed by the Consultant. Cut and maintain weed growth to height of 100 mm. Remove all weed and grass clippings.

3.6.5 Control and eliminate turf damaging pests that appear in newly seeded areas.

3.6.6 Cut lawn grass at regular intervals and maintain minimum height of 60 mm. Cut forage or native type grass at 80 to 100 mm or as directed by the Consultant. Do not cut more than 30% of blade at any one mowing. Remove clippings that will smother grass.

3.6.7 Re-seed areas which show root growth failure, deterioration, bare or thin spots, or which have been damaged by any means or cause, including replacement operations. Overseed areas that show inadequate or improper sowing of seed from Brillion or other methods.

3.6.8 Fertilize seeded areas during establishment period, minimum six (6) weeks after seeding, with 27-14-0 fertilizer or as directed by the Consultant. Spread evenly at rate of 3 kg/100 m^2, water in well.

3.6.9 Maintain daily maintenance log throughout Contract. Submit copy of log data to the Consultant each week for verification. Record all maintenance activities performed on site.

3.6.10 The Consultant may extend maintenance period at no additional cost when Contractor fails to: maintain an accurate log; submit log when required; or when unsatisfactory and inadequate maintenance occurs.

3.7 PRELIMINARY ACCEPTANCE

3.7.1 Seeded areas will be accepted by the Consultant provided that:

3.7.1.1 Areas are uniformly established to minimum of 95% and turf is free of rutted, eroded, bare or dead spots and free of weeds.

3.7.1.2 Areas have been cut at least twice.

3.7.1.3 Areas have been fertilized.

3.7.2 Areas seeded in fall which have not received two (2) cuts will be reviewed for Preliminary Acceptance the following spring, one (1) month after start of growing season provided Preliminary Acceptance conditions are fulfilled.

3.8 RESTORATION

3.8.1 Upon completion of Work, remove all or any surplus materials and debris off site.

3.8.2 Reinstate pavement and sidewalks, all amenities, etc., at elevation which existed

before excavation.

3.8.3 Clean and reinstate areas affected by Work as directed by the Consultant.

3.8.4 Correct any or all deficiencies previously recorded.

3.9 WARRANTY

3.9.1 Guarantee seeded areas due to faulty material and workmanship for a period of two (2) years from the issue date of the Substantial Performance of the work.

END OF SECTION

PART 1 - GENERAL

1.1 WORK INCLUDED

1.1.1 This section specifies the supply and placing of cultivated Number One Grade Turfgrass Nursery Sod and other materials required in sodding operations.

1.2 REFERENCES

1.2.1 Nursery Sod Growers Association of Ontario (NSGA).
1.2.2 Guelph Turfgrass Institute.

1.3 SCOPE OF WORK

1.3.1 Furnish all labour, materials and equipment necessary to prepare fine grade of topsoil surfaces of the site in advance of sodding operations, supply, transport and place the sod and other materials required in the sodding operations all in accordance with the lines, grades, levels and dimensions shown on the drawings and in accordance with the construction details and specifications herein.

1.3.2 Coordinate Work in this section with Work in all other sections.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

1.4.1 Deliver sod to site within 24 hours of being harvested and lay sod within 48 hours thereafter, depending on suitable weather conditions and in accordance with good horticultural practice. Small, irregular or broken pieces of sod will not be accepted.

1.4.2 Schedule deliveries in order to keep storage at job site to a minimum without causing delays. Protect sod from drying out during transportation.

1.4.3 Deliver, unload and store sod on pallets. Keep sod moist and cool at all times until installation.

1.4.4 During wet weather allow sod to dry sufficiently to prevent tearing during lifting and handling.

1.4.5 During dry weather protect sod from drying and water sod as necessary to ensure its vitality and prevent dropping of soil in handling. Dry sod will be rejected.

1.4.6 Review storage areas for approval by the Community Services Representative prior to delivery of materials to the site.

1.5 QUALITY ASSURANCE

1.5.1 The Contractor must have a minimum 5 years' experience in sodding and turf establishment projects of a similar nature.

1.5.2 Contractor:

1.5.2.1 The Contractor shall supervise all Work in this section including implementation and all maintenance until acceptance of the works by the City.

1.5.2.2 The Contractor shall obtain approvals for Suppliers, Sub- Contractors, and materials to be used in this section of Work.

1.5.2.3 The Contractor / Sub-Contractor implementing Works in this section shall meet the standards of “Landscape Ontario” and shall be approved by the Community Services Department.

1.5.3 Suppliers:

1.5.3.1 The sod supplier shall meet the standards and requirements of the Classification and Use of Turfgrass Sod by the NSGA.

1.5.4 Review and obtain approval from the Community Services Representative of the completed finished topsoil surface before proceeding with sodding.

1.6 WORK CONDITIONS

1.6.1 All Work in this section shall be undertaken in suitable weather conditions and at a time that is approved by the Community Services Representative.

1.6.2 Schedule pre-sod preparation of topsoil and finished grading to permit sod placement operations under optimum conditions. Area to be sodded to be free of any debris including stones.

1.6.3 Proceed with sodding operations only during suitable weather conditions favorable for germination and growth. Do not lay sod on frozen, snow or ice covered ground.

1.6.4 After completion of fine grades only light weight rubber tire vehicles will be allowed on finished surfaces to be seeded. Equipment vehicles shall be equipped with a minimum four lightweight rubber tires (Terra type or approved equal) to prevent compaction or disturbance to the fields or finished graded surfaces.

1.6.5 Obtain the approval of the owner and consultant of the finished topsoil surface before proceeding with sodding operations.

1.7 WARRANTY AND REPLACEMENT

1.7.1 Warranty all material and workmanship in this section from non-establishment, slipping, sinking, eroding, depressions or any other change in turf establishment or finished grade for a period of one (1) year from date of the Substantial Performance of Work. Re-sod at the Contractor's expense, areas that are in an unhealthy growing condition in the opinion of the consultant or the turfgrass inspector.

1.8 ACCEPTANCE

1.8.1 It is the Contractor's responsibility to maintain the sodded areas under proper conditions for establishment, in good and healthy condition until acceptance.

1.8.2 At the time of acceptance the grass must be not more than 75mm (3") high.

Minimum acceptable cutting height is 45mm. It is in contractor's scope to cut and maintain the grass on 3" high at the time of the City's acceptance after one full growing season.

1.8.3 Acceptance will be given when the sod area is properly rooted, free of bare and dead spots and free of weeds, safe and ready for its intended use in the opinion of the consultant or the independent inspector. Any areas that are not uniformly established or are thin due to faulty materials, procedures or workmanship shall be re-sodded at the Contractor's expense.

1.8.4 Replace any deteriorated sod with new sod at the direction of the consultant and independent inspector.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Topsoil: (Refer to Topsoil and Finished Grading Specification for requirements and soil specification as defined by the USDA Soil Textural Chart).

2.1.2 All sod supplied and installed on this project will be certified to meet the requirements of the NSGA Definition for No. 1 Grade Turfgrass Sod with the following definition:

a) **Turfgrass nursery sod** is grass that has been seeded and cultivated in nursery sod fields as a turfgrass sod. At the time of sale, Number One Grade Turfgrass Nursery Sod should be in a healthy condition. Sod of this quality may contain I broadleaf weed per 40 square metres and up to 1% native grasses. Sod should be of sufficient shoot density that no surface soil will be visible from a standing position when mowed to a height of 4 centimetres. The mowing height range should be 3 to 7 centimetres with the exception of creeping bent grass sod where mowing height is determined by the end use. The thickness of the soil portion of the sod should not exceed 1.5cm.

2.1.3 Water: Potable, free of impurities that would inhibit germination. Contractor is responsible for supplying all water required by the Work in this section including water required to establish a healthy turf cover.

2.1.4 Mulches and Organic Amendments: Mulches are restricted to paper and wood residues. Organic amendments may include manure, compost or sewerage sludge.

PART 3 - EXECUTION

3.1 INSPECTION

3.1.1 Prior to laying sod, verify that all related Work in other sections has been completed and that all trades still requiring access to the site will not disturb finished grades of topsoil. Ensure the construction access for sodding operations is clearly understood and all compaction caused by equipment required by the construction will repaired to meet specifications as the sod Work progresses.

3.1.2 Prior to laying sod, consultant and a member of the Park Operations shall review the site conditions and verify that existing topsoil installation, finished grades and depth are as specified. Finished surface shall be compacted to 90% Standard Proctor Density, be smooth, consistent, firm against foot prints, with a fine loose texture prior to sodding.

3.2 PREPARATION

3.2.1 Cultivate to a minimum depth of 100mm. Repeat cultivation in those areas where equipment used for hauling and spreading has compacted the subgrade. Remove all rocks, roots, and grass or weed clumps from the surface. Correct all imperfections in surfaces such as ruts or wheel tracks prior to sodding. Prepared topsoil areas that have been compacted by construction activity are unacceptable and must be rototilled and cultivated prior to receiving new sod.

3.2.2 Fine grade the subgrade, eliminating uneven areas and filling low spots.

3.2.3 Protect topsoiled areas from all and any accumulation of construction debris through to completion and warranty period. Remove and replace contaminated and damaged topsoiled areas at no extra cost to the Owner.

3.2.4 Compact surface to 90% Standard Proctor Dry Density for areas under sod. Areas with extreme compaction will not be accepted.

3.2.5 Scarify to a depth of 25mm before placing additional topsoil or sod. Fine grade topsoil as per Topsoil and Finished grading Specifications and provide a finished topsoil surface that is smooth and firm against footprints, with a fine, loose texture, before sod is placed.

3.3 INSTALLATION

3.3.1 Notification of sod installation to be given to the consultant a minimum of 72 hours prior to Work commencing.

3.3.2 Lay sod as soon as possible after arrival on the site. Lay sod with tight butt joints. Do not leave any open joints or overlap adjacent pieces of sod. Alternate joints on each row of sod.

3.3.3 Ensure finished sod is flush with adjoining grass areas, pavement or top surface of curbs. Make allowances for settlement and compaction by rolling.

3.3.4 Immediately after sod has been laid, roll all areas with roller providing 680 kg pressure per square metre to ensure good bond between sod and soil and to remove minor irregularities.

3.3.5 Immediately after rolling and no later than 24 hours after laying the sod, water the sod with sufficient quantity of water to penetrate the sod and the top 100mm of the underlying topsoil.

3.3.6 After sod has dried sufficiently to prevent damage, roll all areas again with roller

providing 680 kg pressure per square metre to remove irregularities in the finished surface. Second rolling must be performed no later than 5 days following the first application of water or a significant rainfall. Failure by the Contractor to provide the specified finished surface of sod, including multiple rolling, as soon as practicable following installation is unacceptable and will be corrected by the City at the Contractor's expense.

3.3.7 Provide adequate protection of sodded areas against erosion and to prevent construction or mechanical damage. Remove protection after turf areas have been accepted.

3.4 FIELD QUALITY CONTROL

3.4.1 Checking: Review all sodded areas verifying joints and any sod imperfections for immediate correction. Make corrections without the necessity of the consultant's review and deficiency classification.

3.4.2 Protection: Assume full responsibility for protection of all sodded areas until Total Completion of the Works.

3.4.3 Erect protective barriers and post signs where necessary and maintain same until Total Completion of the Works.

3.5 SUBSTANTIAL COMPLETION

3.5.1 All sodded areas shall be firmly rooted, healthy, vigorous, and free of weeds at time of inspection of completed park Works.

3.6 FINAL ACCEPTANCE

3.6.1 The sodded areas will receive final acceptance upon completion of one full growing season after a minimum of two cuts by the contractor, and providing all acceptance conditions have been fulfilled including:

- Sodded areas are properly established, healthy and vigorous;
- Turf is free of eroded, bare or dead spots and 98% free of weeds;
- No surface soil is visible when grass has been cut to height of 50 mm;

3.6.2 If after one full growing season, the sodding does not meet the above requirements, additional sodding shall be required to the satisfaction of the owner and consultant. Acceptance of any re-sodded area will be given only upon fulfilment of the acceptance conditions and if required by the consultant.

3.7 CLEAN UP

3.7.1 Promptly as the Work proceeds and upon completion, clean up and remove from the site rubbish and surplus material resulting from the Work in this section.

3.7.2 The Contractor shall restore all surfaces used to access the site to their original condition.

3.7.3 Any existing sodded areas which have been rutted, damaged or disturbed are to be re-sodded or top-dressed and seeded. The method of repair will be to the discretion of consultant to ensure the site is restored to no less than original condition.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

1.1.1 This Section specifies requirements for relocating shrubs and plants that are to be preserved.

1.2 RELATED SPECIFICATION

1.2.1 Canadian Standards for Nursery Stock, latest edition, published by the Canadian Nursery Landscape Association.

1.2.2 OPSS 492 - Construction Specification for Site Restoration Following Installation of Pipelines, Utilities and Associated Structures in Open Cut.

1.3 QUALIFICATIONS OF CONTRACTOR

1.3.1 All work required under this Section shall be performed by a qualified landscape /horticultural contractor using workers experienced in this work. Trees and shrubs shall be planted by a contractor who is a member of Landscape Ontario Horticultural Trades Association.

1.4 INTERIM MAINTENANCE

1.4.1 The Contractor shall be responsible for interim maintenance of relocated plant material immediately following planting and shall continue until preliminary acceptance has been granted, and such maintenance shall be considered part of the installation work.

1.4.2 The Contractor must immediately replace all dead or dying plants during the guarantee period as required by Contract Administrator. Replacement of plants only at the end of the guarantee period will not be acceptable.

1.4.3 This interim maintenance in regard to new planting shall consist of:

a) Pruning, watering, fertilizing, cultivating, weeding, mulching, tightening and repairing of supports, resetting plants to proper grades or upright position, restoration of planting saucer and furnishing and application of such sprays as are necessary to keep plants free of insects;

b) Keeping soil within confines of planting saucer around trees, and keeping planting beds shallowly cultivated and free of weeds;

c) Adding commercial fertilizer 10-10-10 at the rate of 10 kg/100 m^2 according to the manufacturer's instructions at the end of the interim maintenance period.

1.5 ACCEPTANCE

1.5.1 "Preliminary Acceptance" shall be given to all relocated plant material showing healthy growth and bud formation at the time of completion inspection. This acceptance shall include mulch, tree supports, wooden stakes and the planting mixture.

1.5.2 Final Acceptance shall be given to all plant material meeting all conditions as specified above for Preliminary Acceptance, at one year after Preliminary Acceptance has been granted.

1.6 MAINTENANCE AFTER COMPLETION

1.6.1 Tree and Shrub Maintenance:

a) The Contractor shall provide maintenance following Preliminary Acceptance and continue throughout the period of guarantee until Final Acceptance as specified in 1.05.2 above. Maintenance requirements shall include all procedures consistent with proper horticultural practices to ensure normal, vigorous and healthy growth. This includes adequate watering, pruning, cultivation and weed control as required, disease and insect pest control, re- staking and attention to supports.

b) The Contractor shall restore the site to original conditions from damage arising out of the maintenance operations.

c) This work shall be performed to the satisfaction of the Contract Administrator and compensation shall be deemed to be included in the prices bid for various tender items.

1.6.2 Weed and Grass Control:

a) All wood chip mulched areas shall be kept free of grass for the duration of the guarantee period.

1.7 GUARANTEE

1.7.1 The Contractor shall be required to guarantee all work and materials specified for twelve (12) months from the date of written Preliminary Acceptance of the work by the Contract Administrator or as specified otherwise.

1.7.2 An end of guarantee period inspection will be conducted by Contract Administrator.

1.7.3 Plants shall be in a healthy growing condition at the end of the guarantee period. A plant shall be assumed to be acceptable when it is structurally sound, when it is well furnished with living foliage, when it has normal colour, when it shows adequate annual growth and formation of buds and when it is free from blight of any description.

1.7.4 Replacements required at the end of the guarantee period shall be plants of the same species and size as shown in the plant list and on the Contract Drawings,

furnished and planted as specified in the Contract Documents. The cost of replacement shall be the responsibility of the Contractor.

1.7.5 Tree supports shall be removed at the end of the guarantee period provided that the plant material is showing well developed foliage, healthy growth, good bud formation and well anchored in the planting soil. Tree wrap shall be removed in the first spring after planting.

1.7.6 The Contract Administrator reserves the right to extend Contractor's guarantee responsibilities for an additional one year period if, at the end of the initial guarantee period, leaf development and growth is not sufficient to ensure future survival.

1.8 JOB CONDITIONS

1.8.1 Work of this Section shall be performed during suitable weather conditions and growth season for each specified material.

PART 2 - PRODUCTS

2.1 TOPSOIL

2.1.1 Topsoil shall be fertile, friable natural loam containing not less than 4% of organic matter for clay loams and not less then 2% for sandy loams with an acidity value ranging from pH 6.5 to 7.5 and capable of sustaining vigorous plant growth.

2.1.2 Topsoil shall be free of roots, vegetation or other debris that prevents proper placement, and free of stones and clods over 20 mm in any dimension. Imported topsoil shall be screened prior to delivery to the job site.

2.2 FERTILIZER

2.2.1 Complete commercial slow release fertilizer with a maximum 35% water soluble nitrogen with the following percentages by weight of nitrogen, phosphorus, and potassium, in that order: 10-10-10, or as determined by soil tests.

2.3 MULCH

2.3.1 Shall be a utility hardwood mulch supplied by Gro-Bark, Waterloo, Ontario, or approved equivalent.

2.4 TIES

2.4.1 Use biodegradable material such as folded burlap, stapled to stake with fence staples or roofing nails.

2.5 WOODEN STAKES

2.5.1 For tree supports, use new wooden stakes 50 mm x 50 mm x 2400 mm long. Steel T-bars will not be permitted.

2.5.2 For securing straw bales, use any wooden stakes (recommended size 25 mm x 50 mm, minimum 1200 mm long).

2.6 PLANTING MIXTURE

2.6.1 Planting mixture shall contain 6 parts topsoil, 2 parts well rotted cow or horse manure.

PART 3 - EXECUTION

3.1 PROTECTION

3.1.1 Examine route of work to determine location and size of existing trees and shrubs to remain.

3.1.2 Mark shrubs and trees to remain.

3.1.3 Protect trees with slatting around trunks and erect snow fencing around drip line.

3.1.4 Store trees and shrubs, which cannot be planted immediately in a satisfactory manner.

3.1.5 Protect trees from damage and drying out from time of digging until planting.

3.2 PREPARATION

3.2.1 Location of Trees:

a) Stake out all tree and shrub locations and obtain the Contract Administrator's approval before excavating. Cooperate with the Contract Administrator where minor adjustments to such locations are necessary. The proposed new location of trees and plants shown on Contract Drawings is approximate only and may require adjustment due to site conditions.

b) The Contractor shall be responsible for locating all underground utilities and services prior to digging.

3.2.2 Subgrade for Planting Beds and Tree Pits:

a) Scarify to a depth of 150 mm below bottom of planting pit/bed.

3.3 PLANTING TIME

3.3.1 Provide the Contract Administrator with plant relocation schedule.

3.3.2 Trees and shrubs shall be re-planted immediately after being excavated.

3.3.3 Ensure that watering facilities are available.

3.3.4 Plant only under conditions that are conducive to the health and best physical condition of plant material.

3.4 INSTALLATION

3.4.1 Plants and Trees:

a) Plant during suitable weather conditions, according to locally accepted practice and with the Contract Administrator's approval. Set plumb in the centre of the pit and at the same relation to grade as originally shown, after settlement has taken place.

b) Plant trees and shrubs vertically and faced to give best appearance in relation to structures, roads, and walks.

c) Excavate planting holes in planting areas. Ensure that hole is wider and deeper than rootball, allowing at least 150 mm of planting mixture under each plant. Set plants so that their roots lie in their natural position. Constantly tamp planting mixture around rootball to eliminate air pockets. When two thirds of depth of planting pit has been backfilled, fill remaining space with water. After water has penetrated into soil, backfill to finish grade leaving a shallow saucer directly over the rootball, and slightly smaller in diameter than the excavation. Apply fertilizer at a rate of 10 kg/100 m^2. Water trees and planting beds thoroughly immediately after planting.

d) Ensure that the top of the rootball is 150 mm above surrounding grade.

3.4.2 Tree Support:

a) After planting, stake all trees with biodegradable ties and two wooden stakes. Fasten ties with roofing nails or equivalent. Keep ties taut at all times without subjecting tree to undue strain.

3.4.3 Pruning:

a) Prune only as necessary to remove dead and broken branches and to compensate for the loss of roots as a result of digging operations. Preserve the natural form and character of plants and do not remove small twigs along tree trunks.

b) Pruning shall be performed in accordance with good arboricultural practices. Use only sharp, clean tools and make cuts flush without leaving stubs. Trace back to living tissue all cuts, bruises, and scars on the bark.

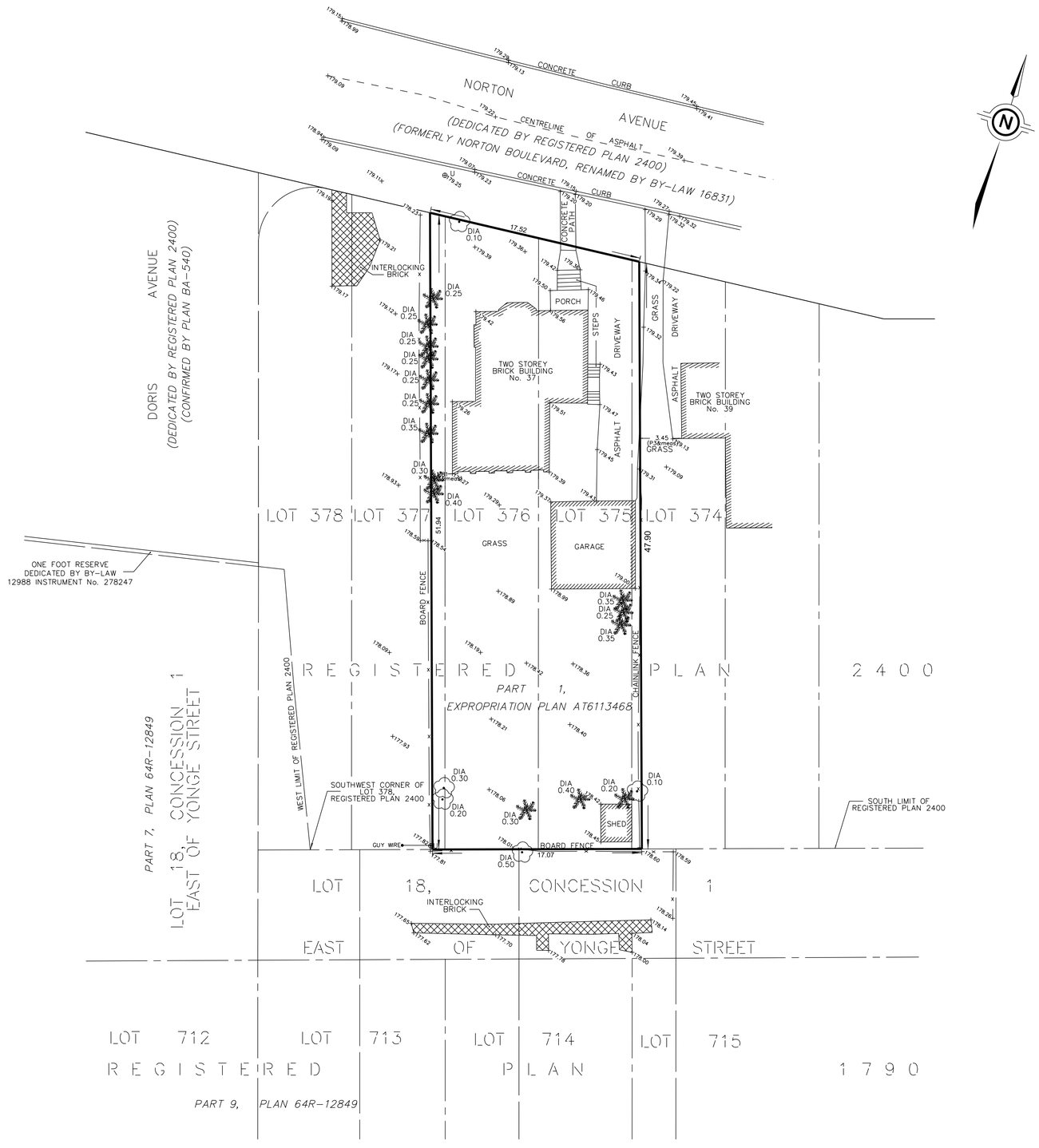
3.4.4 Mulching:

a) Obtain the Contract Administrator's approval of planting before mulching material is applied. Loosen soil in planting beds and pits and remove all debris and weeds. Spread mulch to minimum acceptable thickness of 75 mm. Mulch material susceptible to blowing must be moistened and mixed with small amount of topsoil before applying. When mulch is applied in the fall, place immediately after planting. When mulch is applied in spring, wait until soil has warmed up.

END OF SECTION

APPENDIX A

Survey Plan



SKETCH SHOWING TOPOGRAPHIC INFORMATION OF

37 NORTON AVENUE

CITY OF TORONTO

FORMERLY CITY OF NORTH YORK

0 4 8 12 16m

SCALE: 1:200

METRIC DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

CAUTION THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE IN THE TITLE BLOCK

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR : 0.999887.

ELEVATIONS SHOWN HEREON ARE REFERRED TO GEODETIC DATUM AND ARE DERIVED FROM CITY OF TORONTO BENCHMARK No. 12319653429 HAVING AN ELEVATION OF 176.586m.

NOTE BOUNDARY INFORMATION HAS BEEN COMPILED FROM OFFICE RECORDS.

UNDERGROUND SERVICE INFORMATION IS NOT PROVIDED ON THIS PLAN

LEGEND

U	DENOTES UTILITY POLE
DIA	DENOTES DIAMETER
	DENOTES DECIDUOUS TREE
	DENOTES CONIFEROUS TREE

FIELD WORK WAS COMPLETED ON AUGUST 05, 2022.

TORONTO
Engineering & Construction Services
Engineering Support Services

Land & Property Surveys
18 Dyas Road
2nd Floor
Toronto, Ontario
M3B 1V5

FOR CITY OF TORONTO USE ONLY	JOB NUMBER
37 NORTON AVENUE	2022-04875
	PLAN NUMBER
	1

DATE	FIELD	CAD	DESIGN FILE	CHECKED BY
SEPTEMBER 14, 2022	N.P.	M.P.	2022-04875topo.DGN	V.K.

Demolition
223 Gladys Allison Place
Project No.: 22007

APPENDIX B

Designated Substances and Hazardous Materials Survey

Designated Substances and Hazardous Materials Survey

37 Norton Avenue, North York, Ontario

City of Toronto

January 18, 2023

→ The Power of Commitment

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Author	Craig Duffield
Project manager	
Client name	City of Toronto
Project name	[GHD Project name]
Document title	Designated Substances and Hazardous Materials Survey 37 Norton Avenue, North York, Ontario
Revision version	Rev [00]
Project number	12594791-RPT-2

Document status

Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
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S4	Final	Fatima Tursic	Craig Duffield		David Hutchinson		18 Jan 2023

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1. Introduction

GHD Limited (GHD) was retained by City of Toronto (Client) to conduct a Designated Substances and Hazardous Materials (DSHM) Survey of the buildings at the property located at 37 Norton Avenue in North York, Ontario (hereinafter referred to as the Site or Property). The Site is being acquired by the City of Toronto and is unoccupied**.**

The Site is improved with a two-storey building with a finished basement, a separate two-car garage [approximately 64 square metres (m^2) in size], and a small wooden shed (approximately 9 m^2 in size) at the southeast corner of the Property. The Site is approximately 850 m^2. The Site surfaces are comprised of asphalt, concrete and grass. It is GHD's understanding that the City of Toronto intends to demolish the Site buildings as part of the expansion of John MacKenzie Parkette, located adjacent to the west of the Site.

The DSHM Survey was requested to evaluate the potential for the presence of DSHM at the Site to support the demolition of the buildings. The objective of the DSHM Survey was to identify, approximate the quantities, and evaluate designated substances as defined and regulated by the Ontario Regulation (O. Reg.) 490/09 "Designated Substances", made under the Occupational Health Safety and Safety Act (OHSA) including: acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica, and vinyl chloride.

Other potentially hazardous substances also evaluated were polychlorinated biphenyls (PCBs) (e.g., light ballasts and electrical equipment), urea formaldehyde foam insulation (UFFI), ozone-depleting substance (ODS) (e.g., in refrigeration, air conditioners, and chillers), man-made mineral fibre (e.g., fibreglass), radioactive materials (e.g., smoke alarms and exit signs), and mould.

The following items were not inspected or sampled as part of Site inspections since these items were not readily accessible, it was not practical to safely access for inspection or sampling, and/or it was not necessary to inspect based on the age and type of construction/materials and Site contact knowledge: or sample:

– Components or wiring within motors, lights or other electrical systems, equipment, wiring, and fixtures
– Portable or non-fixed equipment
– Below grade utilities

The DSHM Survey has been prepared for the City of Toronto and their Contractors and may not be relied upon by others without the written consent of the City. Any such unauthorized reliance on or use of this report will be at the third party's risk.

1.1 Regulations and Guidance

The DSHM Survey was conducted in accordance with or consideration of the following regulations and guidance:

– Occupational Health and Safety Act (OHSA) Section 30 Duty of Project Owners
– O. Reg. 490/09 Designated Substances
– O. Reg. 278/05 Asbestos on Construction Projects and in Building and Repair Operations and the corresponding Guideline (Ontario Ministry of Labour [MOL], May 2011)
– Lead Guideline for Construction, Renovation, Maintenance or Repair (Environmental Abatement Contractors of Ontario [EACO], October 2014)
– Guideline for Lead on Construction Projects (MOL, April 2011)
– Canadian Surface Coating Materials Regulations (SOR/2016-193)
– Canadian PCB Regulations (SOR/2008-273)
– O. Reg. 362 Waste Management – PCBs
– Guideline for Silica on Construction Projects (MOL, April 2011)

- Mercury-Containing Products Pollution Prevention Fact Sheet #21 (Ministry of the Environment [MOE], September 2001)
- O. Reg. 347/90 General Waste Management
- Mould guidelines for the Canadian construction industry (Canadian Construction Association [CCA], 2018)
- Mould Abatement Guidelines (Edition 3, EACO, 2015)
- Federal Halocarbon Regulations (FHR) (SOR/2003-289)
- Ozone Depleting Substances Regulations (SOR/2016-137)
- O. Reg. 463/10 ODS and Other Halocarbons
- Construction Safety Association of Ontario – Synthetic Vitreous Fibres, Guidelines for Construction (Construction Safety Association of Ontario, 2005)

1.2 Scope of Work

On November 9, 2022, Mr. Craig Duffield of GHD completed an inspection of the building, materials, systems, and fixed equipment at the Site. The following tasks were completed as part of the DSHM Survey activities:

- Site inspection of building and structures.
- Asbestos Survey, including sampling and analysis of building materials.
- Lead Survey, including sampling and analysis of potential lead-based paint (LBP).
- Inspection and evaluation for the presence of the remaining nine designated substances: acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxides, isocyanates, mercury, silica, and vinyl chloride.
- Inspection and evaluation for PCB containing equipment (e.g., transformers, capacitors and fluorescent light ballasts) and potential mercury containing equipment (e.g., manometers, thermostats, fluorescent light tubes). GHD did not collect samples for either of these materials and relied on visual inspection.
- Inspection and evaluation for ODS-containing equipment.
- Inspection and assessment for man-made mineral fibers.
- Inspection and evaluation for significant water intrusion/mould growth.
- Preparation of an inventory of designated substances and documentation of activities and evaluations in a report.

The observations during the Site inspection were documented in GHD standard DSHM Survey inspection forms. Representative photographs of the confirmed asbestos-containing materials (ACM) are provided in Tables 1 and 2.

2. Site Overview

The Property is approximately 850 m^2 in size and is improved with a two-storey residential building with a finished basement, a detached two-car garage (approximately 64 m^2 in size), and a small wooden shed (approximately 9 m^2 in size) at the southeast corner of the Property.

The residential building and the garage are located on the north portion of this property, with a grassed/landscaped backyard with a small wooden shed at the southeast corner. The driveway is asphalt-paved and there are concrete steps at the main and the side entrances.

The residential building has a one-storey addition, with no basement, on the south side with connections from the main and second levels. The main floor consists of a living room, dining room and kitchen with a kitchen, washroom and bedroom on the lower level of the addition. The second floor has three bedrooms and washroom, with attic access from the hallway, and the upper level of the addition is an open space that has experienced a fire loss and was under construction with missing windows. The finished basement has a bedroom, kitchen and washroom, a laundry room

and utility room. An empty former heating oil tank is located in a closet space between the original house and the crawlspace under the addition.

The residential dwelling is constructed with concrete foundation with wood framing with brick with mortar façade finish, some original windows and doors (with older, white caulking), and a peaked asphalt shingled roof. The addition is two-storeys with no basement, constructed with concrete foundation with wood framing with brick and wood façade and a flat roof.

The interior finishes of the house first and second floor are painted plaster or drywall walls and ceiling, with hardwood / laminate flooring and some ceramic tile and wood flooring. There is evidence of a fire loss and ongoing construction on 1st and 2nd floors of house especially in south addition. The interior finishes in the addition are painted drywall walls and ceiling and exposed wood on the second floor, with wood and vinyl tile flooring. Some of the addition's 2nd floor walls where construction is underway are unfinished and have a tar paper on walls. Portions of the basement have concrete floor and walls, exposed wood ceiling and no finishes or insulation and other portions are finished with drywall walls and ceiling. An approximately 900L above-ground storage tank (AST) was observed in the closet between the basement of the original house and the crawlspace under the addition. It appears to be connected to the exterior filling pipe at the exterior west side of the house and is not connected to the furnace which is natural gas-fired. Gray/beige pipe insulation was observed at two locations in the basement, where piping goes into concrete wall. A water heater is present in the basement.

The attic space was accessed through the hatch that is located in the second floor hallway.

The detached 2-car garage is s constructed with a poured concrete foundation with wood framing finished with metal siding and a peaked asphalt shingled roof. The garage interior finishes consist of drywall walls concrete floor and exposed underside of wood framing ceiling. The garage is current used for storage of renovation materials and some house appliances (stove and washer dryer). Small quantities of oil and paints were observed on the shelves in the garage.

A small shed at the southeast corner, is a wood structure, with shingled roof (visually observed to be identical to the shingles on the garage) on a concrete foundation and has no utilities. The shed was empty at the time of inspection

The interior lighting is primarily incandescent, and exterior is compact fluorescent light (CFL) bulbs.

The Site is not presently serviced by any utilities. No transformers or backup generators are located at the Site.

3. Records Review

No previous DSHM Survey information (e.g., surveys and abatement records) were provided to GHD for review or are known to exist for the Site.

4. Designated Substances and Hazardous Materials Survey

On November 9, 2022, Mr. Craig Duffield of GHD completed an inspection of the building materials at the Site. Building materials observed in each area were evaluated, the condition and quantity of designated substances was recorded, and samples were collected, as appropriate. Client representatives provided GHD access to the Site buildings.

4.1 Acrylonitrile

Acrylonitrile is a colourless to pale-yellow liquid at room temperature, with an unpleasant odour. It is used in the manufacturing of synthetic fibres, rubber, coatings, and adhesives.

Based on the Site inspection and Site contact knowledge, no sources of acrylonitrile are present at the Site.

4.2 Arsenic

Arsenic is a silver-grey, brittle, crystalline solid at room temperature. Arsenic compounds are used as wood preservatives, insecticides, herbicides, in metal alloys and are naturally present in certain minerals and soils.

Based on the Site inspection and Site contact knowledge, pressure treated wood products or other potential arsenic containing materials are not present at the Site.

4.3 Asbestos

Asbestos is a group of fibrous minerals that occur naturally in soil and rock. Asbestos fibres were formerly used (primarily for their insulating and fireproofing properties) in roofing shingles, ceiling tiles, floor tiles, asbestos cement products, gaskets, insulation, paper products, and other building insulating products.

O. Reg. 278/05 defines an asbestos-containing material (ACM) as any building material with greater than 0.5 percent asbestos by weight.

GHD conducted an Asbestos Survey and collected samples of building materials suspected to contain asbestos on November 9, 2022. Samples were collected in accordance with bulk asbestos sampling protocols and procedures provided in O. Reg. 278/05 Designated Substances in the Workplace: A Guide to the Asbestos Regulation for Construction Projects, Buildings and Repair Operations (MOL, April 2011), other guidance documents and experience.

GHD collected 50 samples of building materials suspected to contain asbestos. The materials sampled as part of the DSHM Survey included: vinyl sheet flooring under ceramic tiles, caulking (3 different types: at the floor door/windows caulking, newer/white flexible caulking on the bay window and caulking on wood walls on the addition), plaster, drywall compound, vinyl floor tiles, pipe insulation, tar paper on walls, tar and felt layers, pressed board insulation, asphalt shingles, mortar on brick façade. Material condition and estimated quantities also were documented and summarized in Table 1. The analytical report is provided in Appendix A. GHD sample locations are presented on Figures 1 through 3.

The samples were submitted under Chain of Custody protocol to EMSL Canada, Inc. in Mississauga, Ontario for asbestos analysis. EMSL is an accredited and certified laboratory and has been performing asbestos analysis since 1981. Samples of friable materials were submitted for analysis by polarized light microscopy (PLM) using Method EPA/600/R 93/116.

The confirmed ACM at the Site is as follows:

– Approximately 40 m^2 of the 9"x9" gray/beige vinyl floor tiles in the house addition/split level contain 13.3 percent chrysotile asbestos (Sample ID: B-CD003 A-C).
– Drywall compound on the walls of addition/split level contain 2.0 percent chrysotile asbestos (Sample ID: B-CD004 A-D).
– Approximately 1 metre (m) of Aircell-like pipe insulation on the pipes in the basement contain 55 percent chrysotile asbestos (Sample ID: B-CD005 A-C). Additional aircell pipe insulation is present in walls of the first and second floor leading from the basement to radiators, but could not be quantified without significant demolition.
– Caulking samples from around exterior doors and windows on the residential building contain 5.3 percent chrysotile asbestos (Sample ID: B-CD012 A-C).

All other samples were non-detect for asbestos at a laboratory reporting limit of 0.1 percent by weight and no other suspected asbestos materials were observed in accessible areas.

Materials containing asbestos must be managed/abated in accordance with O. Reg. 278/05 (e.g., Type 1, Type 2 or Type 3 depending on the material type, extent and work methods selected) by a qualified contractor. The asbestos-containing materials at the Site are generally in fair to good condition.

4.4 Benzene

Benzene is a colourless liquid at room temperature, with a sweet odour. Benzene and benzene-containing compounds are components of crude oil and refined petroleum products such as gasoline and are present in coal, natural gas, and other materials. Benzene is a component of other chemicals that are used to make plastics, resins, nylon, synthetic rubber, lubricants, detergents, pharmaceuticals, and other materials.

An approximately 900L above-ground storage tank (AST) was observed in a closet between the basement of the original house and the crawlspace under the addition. It appears to be connected to the exterior filling pipe at the west side of the house (box indicates Fuel Oil & Diesel Delivery Petro-Partners Home Experts). The gauge on the AST indicated that it is empty, but it may contain some residual fuel from when the house was heated with oil. No other chemicals, fuels or liquids potentially containing benzene were observed in the areas inspected. Small quantities of staged oil was observed in the garage. There is the potential for release of benzene or benzene containing compounds if plastic and petrochemical based products present in the building (e.g., electrical wiring, piping, etc.) were to degrade and/or combust during a fire or materials are degraded during any renovation or demolition activities.

No other significant potential sources of benzene were observed in any of the buildings.

4.5 Coke Oven Emissions

Coke oven emissions are the airborne constituents of the by-product created by destructive distillation of coal and petroleum. Coke oven emissions are typically associated with the production of steel and coal processing/coke manufacture.

Based on the Site inspection, and review of the Inventory of Coal Gasification Plant Waste Sites in Ontario (Ontario Ministry of the Environment [MOE], April 1987), no sources of coke oven emissions were identified at, or within 5 kilometres of the Site.

4.6 Ethylene Oxide

Ethylene oxide is a colourless gas at room temperature and a liquid at 12 degrees Celsius. It is used in the manufacture of ethylene glycol, surfactants, fumigants, fungicides, and petroleum demulsifiers.

Based on the Site inspection and Site contact knowledge, no sources of ethylene oxide are present at the Site.

4.7 Isocyanates

Isocyanates are compounds that react with compounds containing alcohol (hydroxyl) groups to produce polyurethane polymers, which are components of polyurethane foams, thermoplastic elastomers, spandex fibres, and polyurethane paints. Isocyanates are raw materials used to manufacture polyurethane products, such as polyurethane foam, insulation materials, and surface coatings.

Based on the Site inspection and Site contact knowledge, no sources of isocyanates are present at the Site.

4.8 Lead

Lead is a naturally occurring bluish-grey metal that is solid at room temperature. Lead is used in the manufacture of batteries, solder, paint, and piping. Lead is known to be present in electrical and plumbing equipment (solder), electrical conduit, batteries, older paints, and older piping system materials.

The Canadian Federal Government has been limiting the amount of lead in paint to 0.5 percent (5,000 parts per million [ppm]) since 1976. Paint used in buildings before 1960 probably contained elevated levels of lead. The Surface Coating Materials Regulations (SOR/2016-193) restricts the concentration of lead in new paint to 0.009 percent (90 ppm).

O. Reg. 490/09 regulates lead in the workplace as a designated substance. The MOL Occupational Exposure Level (OEL) for workers to inorganic lead is 0.05 milligrams per cubic metre (mg/m3) for an 8 hour time weighted average exposure. If lead is present in paint or other materials and there may be potential worker exposure at unacceptable levels, a Lead Control Program is required by the MOL to manage occupational exposures, including for renovation and demolition activities.

The Lead Guideline for Construction, Renovation, Maintenance or Repair (EACO, October 2014) and the Guideline for Lead on Construction Projects (MOL, April 2011) provide guidance on measures to be implemented to control potential lead hazards during maintenance, renovation, or demolition activities, which involve the disturbance of materials with elevated lead levels. The EACO lead guideline suggests that for paint with a low level lead concentration (below 0.1 percent [1,000 ppm]), no special lead specific precautions are required, provided there is no aggressive disturbance. Lead containing waste with certain leachable lead concentrations is also regulated in accordance with O. Reg. 347 – Waste Management General.

Paint sampling for lead was conducted as part of the DSHM Survey. GHD collected one sample of paint from the house interior (white paint on drywall and plaster walls and ceilings) and two samples of exterior paint (white paint on the wood on façade and milk box and the brown paint on the wood walls on addition/split portion of the house.

The samples were submitted under Chain of Custody protocol to EMSL Canada Inc. in Mississauga, Ontario for lead analysis using "Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)" method. The analytical laboratory report for the paint chip samples is provided in Appendix B. The detailed description of material surveyed, including location, colour, accessibility, condition, and analytical results are provided in Table 2. GHD sample locations is presented on Figures 1 and 2.

Lead was detected in both of exterior samples as follows:

– Sample of white paint on white paint on the wood portion of entrance awning and milk box contained 5.6 percent [56,000 parts per million (ppm)] lead (Sample ID: B-CD015).
– Sample of brown paint on the wood walls on the south exterior of the addition/split portion of the house contained 0.14 percent [1,400 parts per million (ppm)] lead (Sample ID: B-CD016).

Sample of the house interior white peeling paint on drywall and plaster walls and ceilings did not contain lead at a reporting limit of 0.0080 percent (80 ppm) lead.

4.8.1 Other Potential Lead Sources

Lead may be present in solder used in plumbing and electrical systems at the Site.

A Lead Control Plan including procedures consistent with the Lead Guideline for Construction, Renovation, Maintenance or Repair (EACO, October 2014) should be prepared and followed during maintenance, renovation or demolition activities when painted surfaces or other lead-containing materials will be disturbed.

4.9 Mercury

Mercury is a naturally occurring metal. At room temperature, it is a shiny, silver-coloured odourless liquid. When heated it becomes a colourless, odourless gas. Mercury is used in electrical switches, thermostats, thermometers, dental fillings, certain batteries, certain lighting systems and some manufacturing processes.

At the time of Site inspection, GHD observed 3 exterior compact fluorescent light (CFL) bulbs which contain mercury vapour. GHD did not observe any mercury-containing thermostats at the Site.

Based on the Site inspection and Site contact knowledge, no other mercury containing equipment is present at the Site.

4.10 Silica

Silica is a transparent to grey odourless powder or crystal at room temperature. It occurs widely in nature as sand, quartz, flint, and diatomite. Silica is used in the manufacture of glass, ceramics, abrasives, water treatment products, cosmetics, insecticides, paint, and foods. Silica is also used as a drying agent or preservative. Crystalline silica materials also are used in the production of concrete, cement, acoustic ceiling tiles, and ceramic tiles which are used for construction purposes.

Based on the Site inspection, crystalline silica is present in poured concrete floors and concrete block walls, ceramic tiles and poured concrete and asphalt outdoor features. Crystalline silica is assumed to be present in materials such as fillers for paints and mastic and in bricks, ceramics, masonry, concrete and mortar.

There is a potential for silica dust to be generated by the grinding, cutting, or demolition of building materials.

4.11 Vinyl Chloride

Vinyl chloride is a colourless, flammable gas at room temperature with a mild, sweet odour. Vinyl chloride is a degradation product of organic industrial/commercial solvents such as tetrachloroethylene (PCE) and trichloroethylene (TCE), which are used as degreasing and dry-cleaning agents. One use of vinyl chloride is in the manufacture of polyvinyl chloride (PVC), which is used in many plastic products including plastic pipe, electrical cable insulation, plumbing and conduit fixtures, clothing, upholstery, roofing, and flooring materials. Products potentially manufactured with vinyl chloride and present at the Site are not expected to contain residual vinyl chloride. There is the potential for release of vinyl chloride if building piping, wire and cable coatings and other building materials and equipment degrade or combust during a fire.

At the time of the Site inspection, small quantities of cleaners, paints and other maintenance chemicals which may contain vinyl chloride were observed in the garage. Potential vinyl chloride containing materials can be addressed through the completion of a chemical sweep immediately prior to demolition activities. A chemical sweep consists of conducting a pre demolition inspection for the presence of containerized consumable chemicals throughout the buildings and consolidating all containerized chemicals into a secure area for offsite disposal/recycling. Based on the Site inspection and the historical use of the Site, there is no indication that vinyl chloride is present at the Site in reactive form.

4.12 PCBs

PCBs were historically used in transformers and capacitors due to their thermal stability and excellent dielectric properties. Prior to 1978, PCBs were also commonly found in hydraulic oil used in industrial equipment. While electrical and hydraulic equipment manufactured prior to 1978 remains in use today, most of that equipment was either manufactured to use non-PCB fluid or was retrofilled using non-PCB fluid. Equipment manufactured prior to 1978 has the potential to contain PCBs due to cross contamination of dielectric fluid/hydraulic oil during manufacture and/or servicing. Where present in equipment manufactured prior to 1978, the PCB concentrations are generally low.

The Canadian PCB Regulations (SOR/2008-273) define PCB-containing equipment as any equipment that contains or is contaminated by a PCB liquid, mixture, or solid that contains at least 50 milligrams per kilogram (mg/kg) of PCBs per matrix material, and PCBs are also regulated in accordance with O. Reg. 362/90 Waste Management - PCBs and O. Reg. 347/90 General Waste Management.

An assessment of potential PCB-containing equipment was conducted as part of the DSHM Survey. At the time of Site inspection, GHD did not observe any light fixtures containing ballasts which may contain PCBs or any oil-filled transformers or capacitors indoors at the Site.

Based on the Site inspection and Site contact knowledge, no PCB-containing wastes are stored at the Site.

4.13 Potential ODS-Containing Equipment

Certain chemicals (such as chlorofluorocarbons, hydrochlorofluorocarbons, and halons) are recognized as ODS because they break down in the stratosphere and release chlorine or bromine, which degrade the stratospheric ozone layer (i.e., greenhouse gases). The most common uses of ODS are as refrigerants in commercial, home, and vehicle air conditioners and refrigerators, rooftop heating, ventilation and air conditioning (HVAC) units, foam blowing agents, solvents, aerosol spray propellants, fire extinguishing agents, and chemical reactants.

The Ozone-depleting Substances Regulations (SOR/2016-137) control the import, manufacture, use, sale, and export of bulk ODS. O. Reg. 463/10 ODS and Other Halocarbons consolidated previous multiple regulations regarding ODS use and management. The disposal of ODS waste is regulated by O. Reg. 347 General Waste Management.

Based on observations made by GHD during the Site inspection, fixed equipment containing chlorofluorocarbons (CFCs) was present at the Site:

One refrigerator in the basement contains R 134A refrigerant, which is not an ODS.

Refrigerants (whether ODS or not) must be handled by qualified persons and recycled in accordance with O. Reg. 463/10.

4.14 Man-Made Mineral Fibres

Synthetic mineral fibres are fibrous inorganic substances made primarily from rock, clay, slag, or glass. These fibres are classified into three groups: fibreglass (glass wool and glass filament), mineral wool (rock wool and slag wool), and refractory ceramic fibres. Mineral fibres are used in insulation, lay-in ceiling tile, sprayed fireproofing, and sound control.

Based on the Site inspection, man-made mineral fibre materials are present in fiberglass insulation in the house attic and fibreglass mechanical pipe insulation. These materials are generally in good condition and do not pose a hazard to occupants. Workers during construction would be protected from potential exposure by following similar protocols for protection against silica exposure.

4.15 Mould

No significant suspect mould growth was observed at the time of the Site Inspection. The upper level of the addition has no glass in the windows and is open to the elements. Water and snow will intrude into the building during weather events.

5. Conclusions/Recommendations

The following conclusions were developed based on the results of the DSHM Survey:

1. Notification and/or a copy of the DSHM Survey Report should be made available to employees and contractors working in the areas with DSHM that may be disturbed. Maintenance staff and other employees that may potentially disturb or be exposed to DSHM should have awareness and other training on proper use and/or handling of these materials and protection measures.
2. Asbestos was identified in building materials at the Site, as specified in Section 4.3 and Table 1. Where materials visually similar to those identified as containing asbestos are observed, they shall be treated as ACM unless proven otherwise by additional extensive sampling and analytical results ACM must be managed in accordance with O. Reg. 278/05.

   ACM must be managed in accordance with O. Reg. 278/05, including the development of an AMP prepared in accordance with O. Reg. 278/05 guidance to manage ACM to prevent exposure of occupants, maintenance personnel, or renovation/demolition contractors until all ACM is removed from the Site.

   Any abatement activities undertaken must be planned activities (either standalone abatement or as part of a future construction project) and abatement specifications shall be prepared prior to tendering to identify each location where abatement is required as part of that project. All abatement activities must follow the requirements in O. Reg. 278/05 for Type 1, Type 2 or Type 3 operations, depending on the material being abatement and the proposed abatement methods.

   If hidden potential asbestos-containing material (ACM) is discovered behind walls, under floors, or other materials during demolition activities, work should cease until samples are collected and analyzed or the materials assumed to be asbestos and managed accordingly.
3. Residual fuel may be present in the AST in the basement. Benzene may be present in the staged oil in the garage. No other significant sources of benzene were observed during the Site Inspection.
4. Lead was detected in sample of white paint on white paint on the wood portion of entrance awning and milk box on the house east exterior wall and sample of brown paint on the wood walls on the south exterior of the addition/split portion of the house. Interior painted surfaces were generally in good condition, with minor deterioration (chipped or flaking) in some areas with the paint generally well adhered at the time of the inspection and is unlikely to be a significant hazard to Site occupants or users. Lead is likely present in solder associated with plumbing and electrical fixtures, smoke/fire alarms and security systems.

   A Lead Control Plan (LCP) should be prepared in accordance with 2011 MOL and 2014 EACO guidelines. The LCP would protect workers during demolition, renovation, and maintenance activities which will disturb lead containing materials, until all lead containing materials are removed from the Site. Building materials with surface lead paint are routinely accepted at municipal or C&D landfills as solid, non- hazardous waste with no characterization testing required. Characterization testing may be required in some cases to demonstrate non-hazardous waste characterization. Batteries at the Site contain lead. Solder in piping and electrical systems are assumed to contain lead. Lead containing materials should be managed in accordance with O. Reg. 490/09 and the EACO and MOL guidelines for lead during demolition.
5. Silica is present in poured concrete floors and concrete block walls, ceramic tiles and poured concrete and asphalt outdoor features. Crystalline silica is assumed to be present in materials such as fillers for paints and mastic and in bricks, ceramics, masonry, concrete and mortar. The Guideline for Silica on Construction Projects (MOL, April 2011) should be used to develop appropriate procedures to implement during maintenance, renovation, or demolition activities which disturb silica containing materials and may generate silica containing dust.

6. Three CFL bulbs were observed at the house exterior, which contain mercury vapour. GHD did not observe any mercury-containing thermostats at the Site.

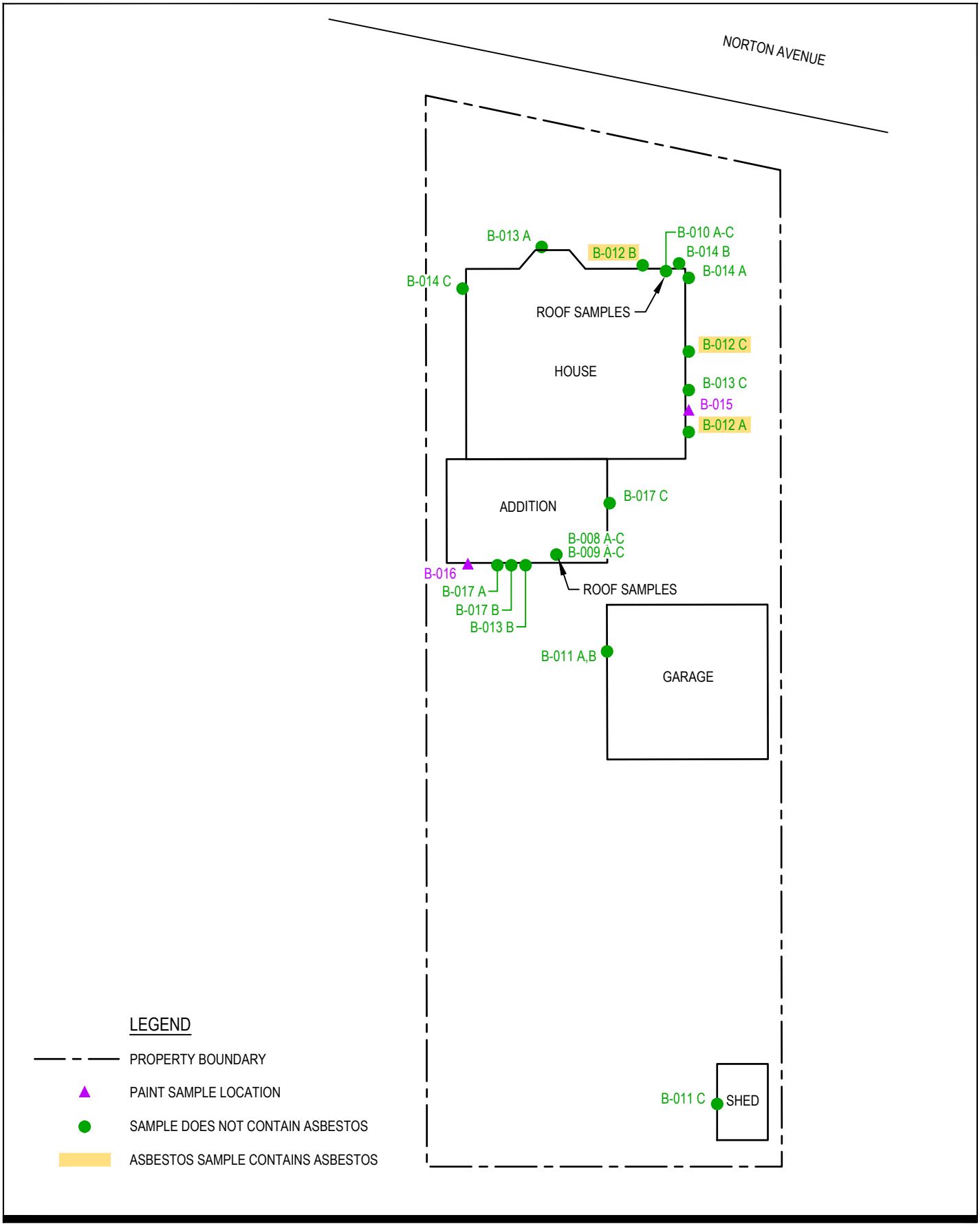
   During maintenance, renovation or demolition activities, the mercury products should be handled and disposed at permitted off Site disposal facilities in accordance with O. Reg. 490/09 Designated Substances. The waste would be classified as 146T hazardous waste on the facility Generator Registration Report under O. Reg. 347/90– General Waste Management.
7. No PCB-containing equipment or material/wastes were observed at the Site.
8. No ODS-containing refrigerants are present in one refrigerator at the Site. All refrigerants should be managed in accordance with O. Reg. 463/10 Ozone Depleting Substances and Other Halocarbons requirements when removed from service. All refrigerants should be removed by qualified technicians and recycled or disposed in accordance with O. Reg. 347 Waste Management (as amended) requirements prior to renovation or demolition activities.
9. Man-made mineral fibre materials are present in fiberglass insulation in the house attic and fibreglass mechanical pipe insulation.
10. No significant suspect mould growth was observed at the time of the Site Inspection. The upper level of the addition has no glass in the windows and is exposed to the elements. Water and snow will intrude into the building during weather events.
11. Based on the Site inspection, historical use of the Site, and Site contact knowledge, no sources of acrylonitrile, arsenic, coke oven emissions, ethylene oxide, isocyanate or vinyl chloride are present at the accessible areas of Site.
12. A DSHM or chemical sweep should be conducted prior to renovation or demolition activities to ensure removal and proper management of DSHM, including chemicals used and stored at the Site. All potential benzene containing products (petroleum based) and vinyl chloride containing products (solvents and cleaners) shall be managed in accordance with OHSA/Workplace Hazardous Material Information System (WHMIS) regulations for Site workers. If the materials are removed from the Site as waste, the materials shall be managed in accordance with O. Reg. 347 requirements.

All of Which is Respectfully Submitted,

GHD

Fatima Tursic, B.Sc. Eng.

Craig A. M. Duffield, B.A.Sc.



0 2.5 5 7.5m

1:250

Coordinate System: UTM83-17

N

GHD

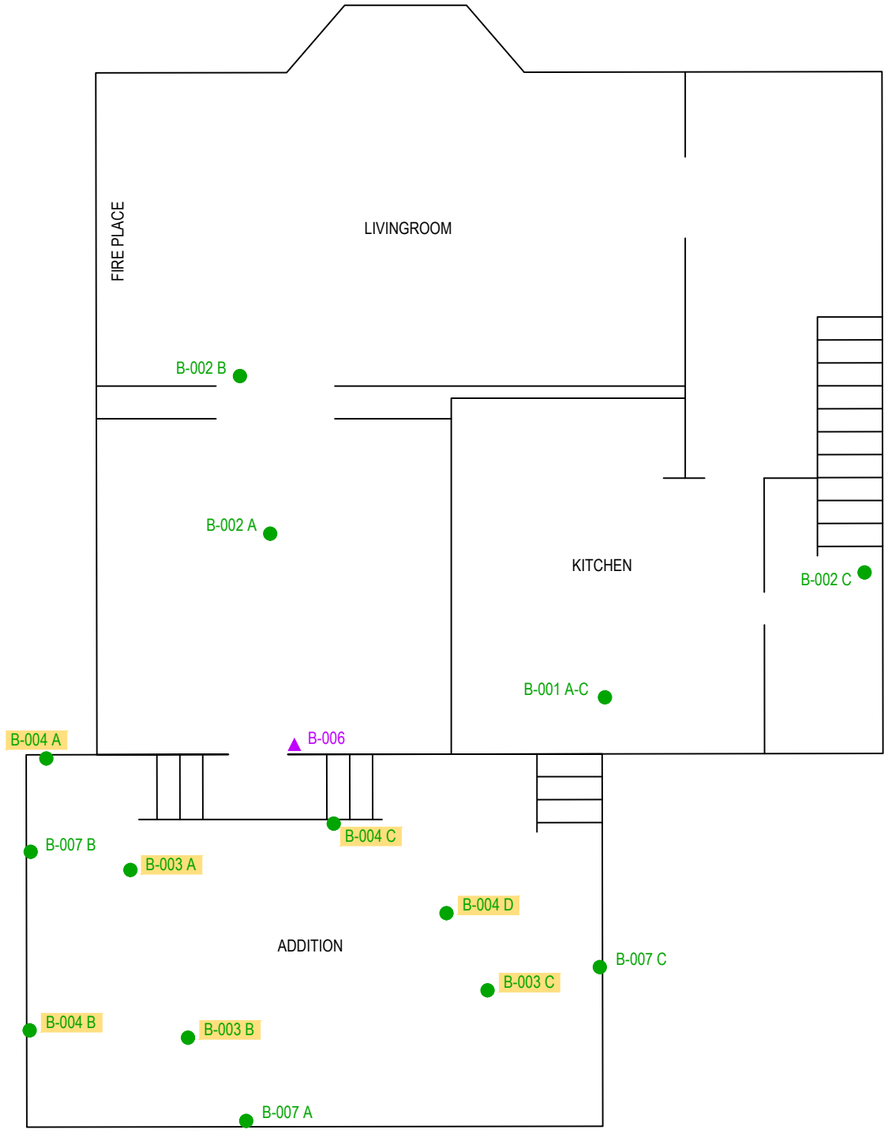
CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
DSHM SURVEY

SAMPLE LOCATION PLAN
EXTERIOR

Project No. **12594791**
Date **November 2022**

FIGURE 1

Filename: N:\CA\Mississauga\Projects\662\12594791\Digital_Design\ACAD\Figures\RPT-DSHM002\12594791-GHD-00-00-RPT-EN-D101_WA-DSHM002.dwg
Plot Date: 24 November 2022 11:35 AM



FIRST FLOOR

SECOND FLOOR

LEGEND

- PAINT SAMPLE LOCATION
- SAMPLE DOES NOT CONTAIN ASBESTOS
- ASBESTOS SAMPLE CONTAINS ASBESTOS

0 0.8 1.6 2.4m

1:80

Coordinate System: UTM83-17

N

GHD

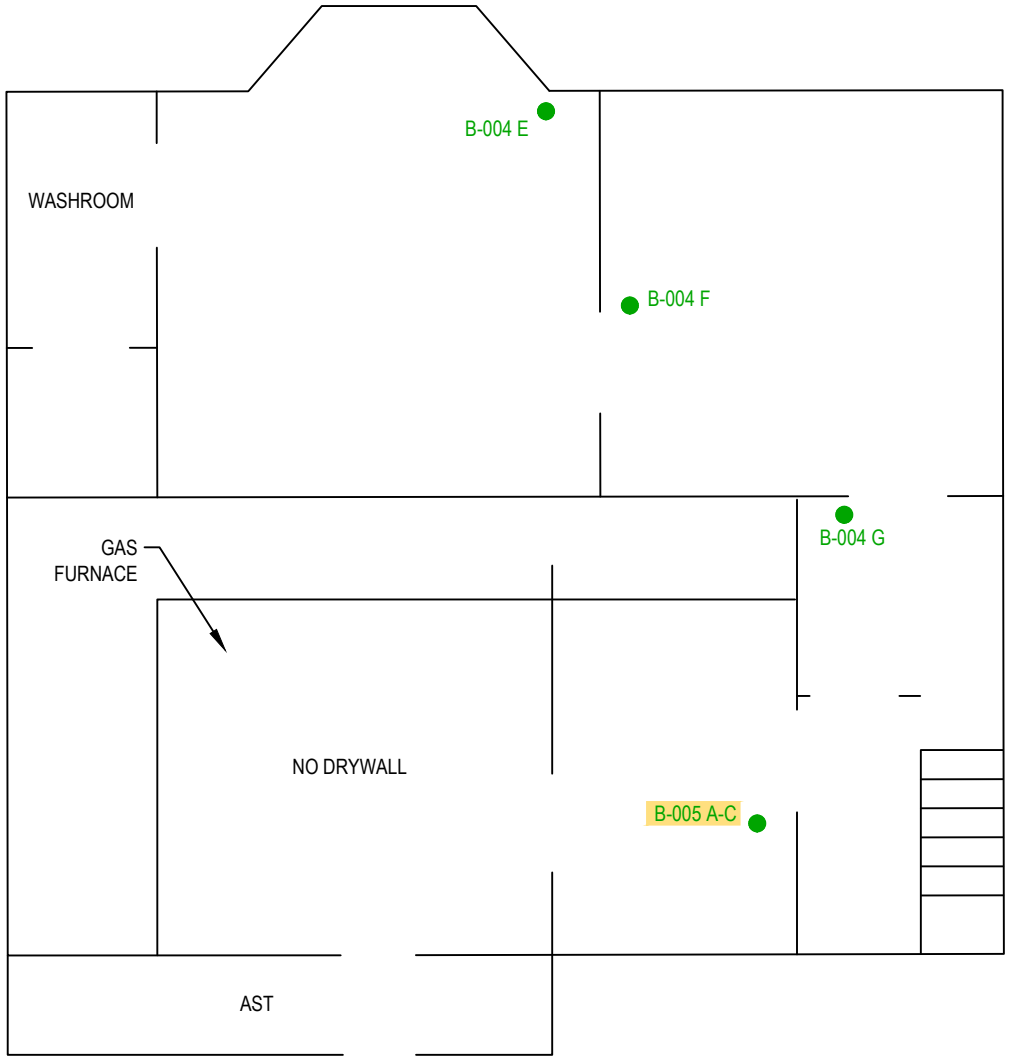
CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
DSHM SURVEY

SAMPLE LOCATION PLAN
RESIDENTIAL BUILDING
1ST AND 2ND FLOOR

Project No. **12594791**
Date **November 2022**

FIGURE 2

Filename: N:\CA\Mississauga\Projects\662\12594791\Digital_Design\ACAD\Figures\RPT-DSHM002\12594791-GHD-00-00-RPT-EN-D102_WA-DSHM002.dwg
Plot Date: 24 November 2022 3:30 PM



BASEMENT

LEGEND

- PAINT SAMPLE LOCATION
- SAMPLE DOES NOT CONTAIN ASBESTOS
- ASBESTOS SAMPLE CONTAINS ASBESTOS

0 0.8 1.6 2.4m

1:80

Coordinate System:
UTM83-17

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
DSHM SURVEY

SAMPLE LOCATION PLAN
RESIDENTIAL BUILDING
BASEMENT

Project No. **12594791**
Date **November 2022**

FIGURE 3

Filename: N:\CA\Mississauga\Projects\662\12594791\Digital_Design\ACAD\Figures\RPT-DSHM002\12594791-GHD-00-00-RPT-EN-D102_WA-DSHM002.dwg
Plot Date: 24 November 2022 3:29 PM

Table 1

Asbestos Analytical Summary
Designated Substances and Hazardous Materials Survey
37 Norton Avenue, North York, Ontario

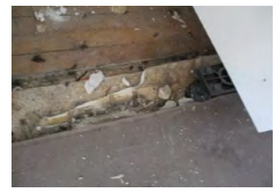
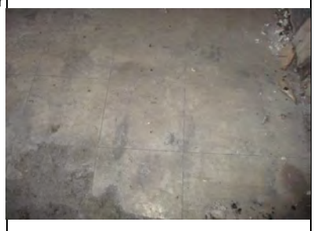
Sample Location	Surface	Material Type	Accessibility	Building Material	Estimated Quantity	Units	Damaged Material	Material Condition			Asbestos Content	Sample ID	Samplers Comments	Photographs
		S T M	H M L N			Each, m, sm, NQ	%	I D SD	NPD PD PSD	F NF	ND NS CH( ) A			
GHD Sampling Conducted on November 9, 2022														
House Kitchen	Floor	M	L	VFT	15	sm	Unknown			NF	ND(0.1%)	B-12594791-20221109-CD001 A-C	Vinyl sheet flooring under ceramic tiles	
House Interior - Main Floor	Walls	M	H	PL		NQ	1%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD002 A-C	Plaster Walls (homogeneous, grey, hard, cementitious plaster material)	
House Interior - 2nd Floor	Walls	M	H	PL		NQ	1%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD002 D-G	Plaster Walls (homogeneous, grey, hard, cementitious plaster material)	
House Addition	**Floor**	**M**	**H**	**VT**	**40**	**sm**	**1%**	**I**	**PD**	**NF**	**CH (13.3%)**	**B-12594791-20221109-CD003 A-C**	**Gray/beige 9"x9" vinyl floor tiles. Mastic is ND.**	
Addition	**Walls**	**M**	**H**	**DC**		**NQ**	**1%**	**I**	**PD**	**F**	**CH (2%)**	**B-12594791-20221109-CD004 A-D**	**Drywall compound**	

Table 1

Asbestos Analytical Summary
Designated Substances and Hazardous Materials Survey
37 Norton Avenue, North York, Ontario

Sample Location	Surface	Material Type	Accessibility	Building Material	Estimated Quantity	Units	Damaged Material	Material Condition			Asbestos Content	Sample ID	Samplers Comments	Photographs
		S T M	H M L N			Each, m, sm, NQ	%	I D SD	NPD PD PSD	F NF	ND NS CH( ) A			
GHD Sampling Conducted on November 9, 2022														
Basement	Walls	M	H	DC		NQ	1%	I	PD	F	ND(0.1%)	B-12594791-20221109-CD004 E-G	Drywall compound	
Basement	**Piping**	**M**	**M**	**IN**	**1**	**m**	**0%**	**I**	**PD**	**NF**	**CH (55%)**	**B-12594791-20221109-CD005 A-C**	**Gray/beige pipe insulation, 1 metre observed at two locations, but piping goes into wall.**	
2nd Floor Addition	Walls	M	H	TP			0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD007 A-C	Tar paper on walls	
Exterior: Addition	Roof	M	M	T&F		NQ	0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD008 A-C	Tar and felt layers	
Exterior: Addition	Board	M	M	IN		NQ	0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD009 A-C	Insulation - pressed board	

Table 1

Asbestos Analytical Summary
Designated Substances and Hazardous Materials Survey
37 Norton Avenue, North York, Ontario

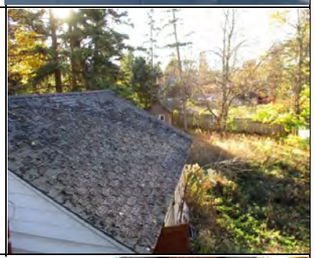
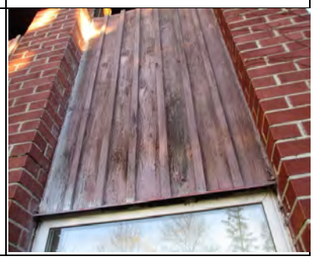
Sample Location	Surface	Material Type	Accessibility	Building Material	Estimated Quantity	Units	Damaged Material	Material Condition			Asbestos Content	Sample ID	Samplers Comments	Photographs
		S T M	H M L N			Each, m, sm, NQ	%	I D SD	NPD PD PSD	F NF	ND NS CH( ) A			
GHD Sampling Conducted on November 9, 2022														
Exterior: House	Roof	M	M	SH		NQ	0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD010 A-C	Asphalt Shingles on the Main Roof	
Exterior: Garage and Shed	Roof	M	M	SH		NQ	0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD011 A-C	Asphalt Shingles on the Garage and Shed	
Exterior	**Door/ Windows**	**M**	**H**	**CA**	**100**	**m**	**0%**	**I**	**PD**	**NF**	**CH(5.3 %)**	**B-12594791-20221109-CD012 A-C**	**Floor door and window caulking**	
Exterior	Door/ Windows	M	H	CA	100	m	0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD013 A-C	Newer, white, flexible caulking	

Table 1

Asbestos Analytical Summary
Designated Substances and Hazardous Materials Survey
37 Norton Avenue, North York, Ontario

Sample Location	Surface	Material Type	Accessibility	Building Material	Estimated Quantity	Units	Damaged Material	Material Condition			Asbestos Content	Sample ID	Samplers Comments	Photographs
		S T M	H M L N			Each, m, sm, NQ	%	I D SD	NPD PD PSD	F NF	ND NS CH( ) A			
GHD Sampling Conducted on November 9, 2022														
Exterior - Brick/Mortar	Wall	M	H	Mortar	Entire Exterior		0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD014 A-C	Mortar on brick façade	
Exterior	Walls	M	H	CA	100	m	0%	I	PD	NF	ND(0.1%)	B-12594791-20221109-CD017 A-C	Caulking material on wood walls	

Notes:

Accessibility:
H = High
M = Medium
L = Low
N = Not Accessible

ACM Type:
S = Surfacing
T = Thermal
M = Miscellaneous

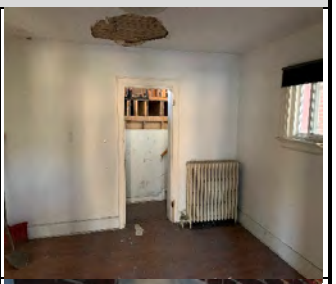
Building Material:
VT = Vinyl Floor Tile
PL = Plaster
TP = Tar Paper
DC= Drywall Compound
CA = Caulking
T&F = Tar and Felt
MA = Mastic
IN = Insulation

Material Condition:
I = Intact
D = Damaged
SD = Significantly Damage
NPD = No Potential for Damage
PD = Potential for Damage
PSD = Potential for Significant Damage
F = Friable
NF = Non-Friable

ACM:
A = Assumed
ND(0.5) = Not Detected at a detection limit of 0.5%
NS = Not Sampled
NQ = Not Quantified
CH( ) = Chrysotile (Percent by volume)
m= metres; sm=square metres
Bold =Asbestos Containing Material

Table 2

Lead Analytical Summary
Designated Substances and Hazardous Materials Survey
37 Norton Avenue, North York, Ontario

Sample Identification	Location	Paint Colour	Surface	Accessibility (1) H M L N	Lead Content (2) (3) %	ppm	Comments	Sampling Location Photo
GHD Sampling Conducted on November 9, 2022								
B-12594791-20221109-CD006	House Interior	White	Walls	H	<0.0080	<80	white paint on the drywall and plaster walls	
B-12594791-20221109-CD015	Exterior	White	Walls	H	5.6	56000	white paint on the wood portion of entrance awning and milk box	
B-12594791-20221109-CD016	Exterior - Wood	Brown	Walls	H	0.14	1400	brown paint on the wood walls	

Notes:

ND(0.009) Non-detect at the detection limit in brackets.
(1) H = High, M = Medium, L = Low, N = Not Accessible
(2) No Canadian or Ontario criteria for paint except for paint manufacture. The general standard of practice is to define paint as lead based paint when the lead content is 0.009 percent (90 ppm) or more by dry weight based on the 2010 Federal Hazardous Products regulation amendment. Ontario Ministry of Labour occupational exposure limit for lead is 0.05 mg lead/cubic metre of air and a Lead Control Plan is required to manage potential exposures during occupancy, maintenance, renovation and demolition activities until LBP is abated. Toxicity Characteristic Leachate Procedure waste characterization criteria for disposal is 5 milligrams per liter.
(3) EACO suggests that LBP containing less than 1,000 ppm (0.1%) lead is considered a de minimis level of lead in paint or surface coatings, provided that aggressive disturbance or heating does not occur, and conventional worker protection measures should be provided (Environmental Abatement Contractors of Ontario Lead Guideline, October 2014).

Appendices

Appendix A

Analytical Laboratory Report – Asbestos

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552217280
Customer ID: 55CRAC22
Customer PO: 735-002011
Project ID:

Attn: Airesse Mac Phee, B.Sc
GHD Limited
455 Phillip Street
Waterloo, ON N2L 3X2

Phone: (519) 884-0510
Fax:
Collected:
Received: 11/09/2022
Analyzed: 11/16/2022

Proj: 12594791-03

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD001A **Lab Sample ID:** **552217280-0001**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Tan/Green/Beige	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD001B **Lab Sample ID:** **552217280-0002**
Sample Description: - Vinyl Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Tan/Green/Beige	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD001C **Lab Sample ID:** **552217280-0003**
Sample Description: - Vinyl Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Tan/Green/Beige	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD002A-Skim Coat **Lab Sample ID:** **552217280-0004**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002A-Rough Coat **Lab Sample ID:** **552217280-0004A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002B-Skim Coat **Lab Sample ID:** **552217280-0005**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002B-Rough Coat **Lab Sample ID:** **552217280-0005A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552217280
Customer ID: 55CRAC22
Customer PO: 735-002011
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD002C-Skim Coat ***Lab Sample ID:*** **552217280-0006**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002C-Rough Coat ***Lab Sample ID:*** **552217280-0006A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002D-Skim Coat ***Lab Sample ID:*** **552217280-0007**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002D-Rough Coat ***Lab Sample ID:*** **552217280-0007A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002E-Skim Coat ***Lab Sample ID:*** **552217280-0008**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002E-Rough Coat ***Lab Sample ID:*** **552217280-0008A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002F-Skim Coat ***Lab Sample ID:*** **552217280-0009**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002F-Rough Coat ***Lab Sample ID:*** **552217280-0009A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552217280
Customer ID: 55CRAC22
Customer PO: 735-002011
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD002G-Skim Coat ***Lab Sample ID:*** **552217280-0010**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD002G-Rough Coat ***Lab Sample ID:*** **552217280-0010A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD003A-Vinyl Floor Tile ***Lab Sample ID:*** **552217280-0011**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Gray/Beige	0.0%	86.7%	**13.3% Chrysotile**	

Client Sample ID: B-12594791-20221109-CD003A-Mastic ***Lab Sample ID:*** **552217280-0011A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Black	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD003B-Vinyl Floor Tile ***Lab Sample ID:*** **552217280-0012**
Sample Description: - Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022				Positive Stop (Not Analyzed)	

Client Sample ID: B-12594791-20221109-CD003B-Mastic ***Lab Sample ID:*** **552217280-0012A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD003C-Vinyl Floor Tile ***Lab Sample ID:*** **552217280-0013**
Sample Description: - Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022				Positive Stop (Not Analyzed)	

Client Sample ID: B-12594791-20221109-CD003C-Mastic ***Lab Sample ID:*** **552217280-0013A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Black	0.0%	100%	None Detected	

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EMSL Canada Order 552217280
Customer ID: 55CRAC22
Customer PO: 735-002011
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD004A ***Lab Sample ID:*** **552217280-0014**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022				Not Submitted	

Client Sample ID: B-12594791-20221109-CD004B ***Lab Sample ID:*** **552217280-0015**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD004C-White Joint Compound ***Lab Sample ID:*** **552217280-0016**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD004C-Beige Joint Compound ***Lab Sample ID:*** **552217280-0016A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Yellow/Beige	0.0%	98.0%	**2% Chrysotile**	

Client Sample ID: B-12594791-20221109-CD004D ***Lab Sample ID:*** **552217280-0017**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD004E ***Lab Sample ID:*** **552217280-0018**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD004F ***Lab Sample ID:*** **552217280-0019**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD004G ***Lab Sample ID:*** **552217280-0020**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

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Customer ID: 55CRAC22
Customer PO: 735-002011
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD005A ***Lab Sample ID:*** **552217280-0021**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray/Beige	20.0%	25.0%	**55% Chrysotile**	

Client Sample ID: B-12594791-20221109-CD005B ***Lab Sample ID:*** **552217280-0022**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022				Positive Stop (Not Analyzed)	

Client Sample ID: B-12594791-20221109-CD005C ***Lab Sample ID:*** **552217280-0023**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022				Positive Stop (Not Analyzed)	

Client Sample ID: B-12594791-20221109-CD007A ***Lab Sample ID:*** **552217280-0024**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Black	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD007B-Tar Paper ***Lab Sample ID:*** **552217280-0025**
Sample Description: - Tar Paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD007B-Leveler ***Lab Sample ID:*** **552217280-0025A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD007C ***Lab Sample ID:*** **552217280-0026**
Sample Description: - Tar Paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD008A-Tar Paper ***Lab Sample ID:*** **552217280-0027**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Black	0.0%	100.0%	None Detected	

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD008A-Tar ***Lab Sample ID:*** **552217280-0027A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Black	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD008B-Tar Paper ***Lab Sample ID:*** **552217280-0028**
Sample Description: - Tar Paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD008C ***Lab Sample ID:*** **552217280-0029**
Sample Description: - Tar Paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD009A ***Lab Sample ID:*** **552217280-0030**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Brown/Black	80.0%	20.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD009B ***Lab Sample ID:*** **552217280-0031**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Brown/Black	80.0%	20.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD009C ***Lab Sample ID:*** **552217280-0032**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Brown	80.0%	20.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD010A ***Lab Sample ID:*** **552217280-0033**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Brown/Gray/Black	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD010B ***Lab Sample ID:*** **552217280-0034**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Brown/Gray/Black	0.0%	100%	None Detected	

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Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD010C ***Lab Sample ID:*** **552217280-0035**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Brown/Gray/Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD011A ***Lab Sample ID:*** **552217280-0036**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Gray/White/Black	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD011B ***Lab Sample ID:*** **552217280-0037**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Gray/White/Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD011C ***Lab Sample ID:*** **552217280-0038**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Gray/White/Black	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD012A-Black Caulk ***Lab Sample ID:*** **552217280-0039**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	Black	0.0%	94.7%	**5.3% Chrysotile**	

Client Sample ID: B-12594791-20221109-CD012A-White Caulk ***Lab Sample ID:*** **552217280-0039A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD012B-Black Caulk ***Lab Sample ID:*** **552217280-0040**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022				Positive Stop (Not Analyzed)	

Client Sample ID: B-12594791-20221109-CD012B-Gray Caulk ***Lab Sample ID:*** **552217280-0040A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	Gray	0.0%	99.6%	**0.36% Chrysotile**	

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EMSL Canada Order 552217280
Customer ID: 55CRAC22
Customer PO: 735-002011
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD012B-White Caulk ***Lab Sample ID:*** **552217280-0040B**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	White	0.0%	100%	**<0.25% Chrysotile**	

Client Sample ID: B-12594791-20221109-CD012C ***Lab Sample ID:*** **552217280-0041**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022				Positive Stop (Not Analyzed)	

Client Sample ID: B-12594791-20221109-CD013A ***Lab Sample ID:*** **552217280-0042**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD013B ***Lab Sample ID:*** **552217280-0043**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	White	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD013C ***Lab Sample ID:*** **552217280-0044**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	White	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD014A ***Lab Sample ID:*** **552217280-0045**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD014B-Grey ***Lab Sample ID:*** **552217280-0046**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD014B-White ***Lab Sample ID:*** **552217280-0046A**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	White	0.0%	100.0%	None Detected	

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EMSL Canada Order 552217280
Customer ID: 55CRAC22
Customer PO: 735-002011
Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID: B-12594791-20221109-CD014C ***Lab Sample ID:*** **552217280-0047**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/16/2022	Gray	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD017A ***Lab Sample ID:*** **552217280-0048**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
TEM Grav. Reduction	11/16/2022	White	0.0%	100.0%	None Detected	

Client Sample ID: B-12594791-20221109-CD017B ***Lab Sample ID:*** **552217280-0049**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	White	0.0%	100%	None Detected	

Client Sample ID: B-12594791-20221109-CD017C ***Lab Sample ID:*** **552217280-0050**
Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	11/16/2022	White	0.0%	100%	None Detected	

Analyst(s):

Kira Ramphal	PLM (21) PLM Grav. Reduction (18)
Natalie D'Amico	PLM (8)
Sandy Burany, Ph.D	TEM Grav. Reduction (12)
Sonya Patel	PLM (1)

Reviewed and approved by:

Matthew Davis or other approved signatory
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Estimation of uncertainty available upon request. This report is a summary of multiple methods of analysis, fully compliant reports are available upon request. A combination of PLM and TEM analysis may be necessary to ensure consistently reliable detection of asbestos. This report must not be used to claim product endorsement by NVLAP of any agency or the U.S. Government.

Samples analyzed by EMSL Canada Inc. Mississauga, ON

Initial report from: 11/16/202219:35:53

OrderID: 552217280

EMSL CANADA, INC.
LABORATORY-PRODUCTS+TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil, Water)

EMSL Order Number / Lab Use Only

552217280

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EMAIL: TorontoLab@EMSL.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information		Billing Information	
Customer ID:		Billing ID:	
Company Name:	GHD	Company Name:	
Contact Name	Andrée MacPhee	Billing Contact:	
Street Address:	455 Phillip St	Street Address:	
City, Province, Postal Code:	Waterloo, ON N2L3X2	City, Province, Postal Code: / Country:	
Country:	Canada		
Phone:	519 884 0510	Phone:	
Email(s) for Report:	Andree.MacPhee@GHD.com	Email(s) for Invoice:	
	Craig.Durfield@GHD.com		

Project Information

Project Name/No:	12594791 -03	Purchase Order:	35-002011
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected:	
Sampled By Name:	Craig A.M. Durfield	Sampled By Signature:	
		No. of Samples In Shipment	50

Turn-Around-Time (TAT)

☐ 3 Hour[1] ☐ 4-4.5 Hour[1] AHERA Only ☐ 6 Hour[1] ☐ 24 Hour ☐ 32 Hour[2] ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

[1]Premium Service Charge applies for 3 Hour TEM AHERA or EPA Level II TAT. TEM Air 3-6 Hour, please call ahead to schedule. [2]32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

Test Selection

PCM Air
- ☐ NIOSH 7400
- ☐ IRSST PCM

PLM - Bulk (reporting limit)
- ☒ PLM EPA 600/R-93/116 (<1%)
  - ☐ 400 PTCT (<0.25%)
  - ☒ Conditional 400 PTCT (<0.25%)
  - ☐ 1000 PTCT (<0.1%)
- ☒ PLM EPA NOB(<1%)
  - ☐ 400 PTCT (<0.25%) ☐ 1000 PTCT (<0.1%)
- ☐ IRSST PLM
- ☐ NIOSH 9002 (<1%)
- ☐ Other

TEM - Air
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II

TEM - Bulk
- ☒ TEM EPA NOB
- ☐ IRSST TEM (NYS 198.4)

TEM - Settled Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480

TEM - Water
- ☐ EPA 100.2 (All fibre sizes)
- ☐ EPA 100.2 (Fibres >10µm)

Soil - Rock - Vermiculite (reporting limit)*
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.25%)
- ☐ PLM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM EPA 600/R-93/116 with milling prep (<0.1%)
- ☐ TEM EPA 600/R-93/116 with milling prep (<0.01%)
- ☐ ASTM D7521 Sieve Method
- ☐ TEM Qualitative via Filtration Prep
- ☐ TEM Qualitative via Drop Mount Prep
- ☐ Cincinnati Method EPA 600/R-04/004 - PLM/TEM* *(required for vermiculite in BC and NS)

Asphalt
- ☐ PLM EPA Gravimetric with milling prep (<0.25%)

Stop At First Positive *(clearly identify homogenous areas below)*

*Please call with your project-specific requirements.

☒ **Positive Stop - Clearly Identified Homogeneous Areas (HA)** | **Filter Pore Size (Air Samples)** ☐ 0.8um ☐ 0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
B-12594791-2022	1109 - CD001 A-C	TEM/PLM NOB	
	CD002 A-G	PLM	
	CD003 A-C	TEM/PLM NOB	
	CD004 A-G	PLM	
	CD005 A-C	PLM	
	CD007 A-C	TEM/PLM NOB	
	CD008 A-C	TEM/PLM NOB	
	CD009 A-C	PLM	

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

FOR PLM, IF <1%, REANALYZE BY 400 pt.ct.

FOR NOB, A BY TEM B&C BY PLM NOB

Method of Shipment:	Hand Deliver		Sample Condition Upon Receipt:		
Relinquished by:	Craig A.M. Durfield	Date/Time: 9 Nov 2022 1540	Received by:	LAB 55/NC	Date/Time: 11/09/22 @ 3:43 PM
Relinquished by:		Date/Time:	Received by:		Date/Time

RECEIVED
2022 NOV -9 P 3:43
EMSL CANADA, INC.
TORONTO

Controlled Document - COC-05-CAN Asbestos R11 04/15/21

☑ **AGREE TO ELECTRONIC SIGNATURE** (By checking, I consent to signing this Chain of Custody document by electronic signature.)

DB

OrderID: 552217280

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LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	Sample Location / Description	~~Volume, Area or Homogeneous Area~~ ANALYSIS	Date / Time Sampled (Air Monitoring Only)
B-12594791-20221109	C0010 A-C	TEM/PLM NOB	
	C0011 A-C	↓	
	C0012 A-C		
	C0013 A-C		
	C0014 A-C	PLM	
	C0015 A-C	TEM/PLM NOB	

Method of Shipment		Sample Condition Upon Receipt	
Relinquished by:	Date/Time:	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-05-CAN Asbestos R11 04/15/21

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

Appendix B

Analytical Laboratory Report – Lead

EMSL Canada Inc.
2756 Slough Street, Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com torontolab@emsl.com

EMSL Canada Or	552217279
CustomerID:	55CRAC22
CustomerPO:	735-002011
ProjectID:	

Attn: **Airesse Mac Phee, B.Sc**
GHD Limited
455 Phillip Street
Waterloo, ON N2L 3X2

Phone: (519) 884-0510
Fax:
Received: 11/9/2022 03:35 PM
Collected: 11/9/2022

Project: **12594791-03**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client SampleDescription	*Collected*	*Analyzed*	*Weight*	*RDL*	*Lead Concentration*
B-12594791-20221109-CD006 *552217279-0001*	11/9/2022	11/10/2022	0.2558 g	80 ppm	<80 ppm
B-12594791-20221109-CD015 *552217279-0002*	11/9/2022	11/10/2022	0.2496 g	1600 ppm	56000 ppm
B-12594791-20221109-CD016 *552217279-0003*	11/9/2022	11/10/2022	0.2535 g	80 ppm	1400 ppm

Rowena Fanto, Lead Supervisor
or other approved signatory

* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA LAP, LLC-ELLAP Accredited #196142

Initial report from 11/16/2022 09:01:12

OrderID: 552217279

EMSL CANADA, INC.
LABORATORY • PRODUCTS • TRAINING

Lead Chain of Custody

EMSL Order Number / Lab Use Only

552217279

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

EMSL Canada, Inc.
2756 Slough Street
Mississauga, ON L4T 1G3

PHONE: (289) 997-4602
EMAIL: TorontoLab@EMSL.com

Customer Information		Billing Information	
Customer ID:	~~GHD~~	Billing ID:	
Company Name:	GHD	Company Name:	
Contact Name:	Aleese MacPhee	Billing Contact:	Angele Nanin
Street Address:	455 Phillip St	Street Address:	
City, Province, Postal Code:	Waterloo, ON N2L3X2	City, Province, Postal Code:	
Country:	Canada	Country:	
Phone:	519 884 0510	Phone:	
Email(s) for Report:	Aleese.MacPhee@GHD.com Craig.Duffield@GHD.com	Email(s) for Invoice:	Angele.Nanin@GHD.com

Project Information

Project Name/No:	12594791 - 03	Purchase Order:	735-002011
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected.	State of Connecticut (CT) must select project location: ☐ Commercial (Taxable) ☐ Residential (Non-Taxable)
Sampled By Name:	Craig Mh. Duffield	Sampled By Signature:	No. of Samples in Shipment: 3

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am

MATRIX	METHOD	INSTRUMENT	REPORTING LIMIT	SELECTION
CHIPS ☐ % by wt. ☒ ppm (mg/kg) ☐ mg/cm² *Reporting Limit based on a minimum 0.25g sample weight. **Not appropriate for Ceramic Tiles - XRF is recommended	SW 846-7000B	Flame Atomic Absorption	0.008% (80ppm)	☒
	SW 846-6010D*	ICP-OES	0.0004% (4ppm)	☐
AIR	NIOSH 7082	Flame Atomic Absorption	4µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-OES	0.5µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-MS	0.05µg/filter	☐
WIPE ☐ ASTM ☐ NON-ASTM *If no box is checked, non-ASTM Wipe is assumed	SW 846-7000B	Flame Atomic Absorption	10µg/wipe	☐
	SW 846-6010D*	ICP-OES	1.0µg/wipe	☐
TCLP	SW 846-1311 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1311 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
SPLP	SW 846-1312 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1312 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
TTLC	22 CCR App. II, 7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
STLC	22 CCR App. II, 7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
Soil	SW 846-7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
Wastewater	SM 3111B / SW 846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
Unpreserved ☐ / Preserved with HNO3 ☐ PH<2	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	☐
Drinking Water	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	☐
Unpreserved ☐ / Preserved with HNO3 ☐ PH<2	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	☐
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	☐
Other:				☐

Sample Number	Sample Location	Volume / Area	Date / Time Sampled
B-12594791-20221109-	CD 006	N/A	09 NOV 2022 0930
~	CD 015		1015
~	CD 016		1020

RECEIVED EMSL CANADA, INC. TORONTO

Method of Shipment: Hand Delivered

Sample Condition Upon Receipt:

Relinquished by:	Date/Time:	Received by:	Date/Time
Craig Mh. Duffield	09 NOV 2022 1540	LMB 55/NC	11/09/22 @ 3:45pm
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-25-CAN Lead Canada R14 05/09/2022

*6010C Available Upon Request

☒ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

Prices quoted do not include tax, which is payable at the time services are billed.

EMSL Canada, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Canada, Inc. constitutes acceptance an[illegible] by Customer.

DB

ghd.com

The Power of Commitment

APPENDIX C

Geotechnical Investigation

ORBIT ENGINEERING
Consulting Engineers

PRELIMINARY GEOTECHNICAL INVESTIGATION

PROPOSED DEVELOPMENT

37 Norton Ave, North York, ON

Prepared for:

City of Toronto

By:

Orbit Engineering Limited

Project No. OE231465EG

April 18, 2023

Orbit Engineering Limited
9-1900 Clark Boulevard Brampton ON L6T 0E9
www.orbitengineering.ca info@orbitengineering.ca

ORBITENGINEERING
Consulting Engineers

April 18, 2023

City of Toronto
Parks Development & Capital Projects
55 John St., 24th Floor
Toronto, ON
M5V 3C6
Email: Anthony.McFarlane@toronto.ca

Attention: Anthony McFarlane, Project Coordinator

Dear Mr. Anthony,

RE:

Preliminary Geotechnical Investigation
Proposed Development
37 Norton Ave, North York, ON

Enclosed please find the Geotechnical Investigation Report for the Proposed Development related to the above noted site.

For and on behalf of Orbit Engineering Limited,

Hafiz Muneeb Ahmad, M.Sc., M.Eng., P.Eng. QP_{ESA}
Senior Principal Engineer

Orbit Engineering Limited
9-1900 Clark Boulevard Brampton ON L6T 0E9
T (+1) (905) 494 0074 F (+1) (855) 666 3355 info@orbitengineering.ca orbitengineering.ca

EXECUTIVE SUMMARY

A PreliminaryGeotechnical Investigation Report for the Proposed Development based on Three (3) boreholes (BH1 to BH3) was carried out at the site located at 37 Norton Ave, North York, ON.

Based on the information provided by the City staff to Orbit, it is our understanding that the existing residential structures (i.e., including two-storeys with one level of basement) at the site will be demolished for the proposed development. The details of proposed development and/or structures were not known while writing this report.

Topsoil was measured 150 – 200 mm at boreholes (BH2-BH3) excluding BH1 where pavement structure (i.e., Asphalt approximate 35mm overlying 30mm Granular base was observed). It should be noted that the thickness of the topsoil and asphalt explored at the borehole locations may not be representative for the site and should not be relied on to calculate the amount of topsoil and asphalt quantities at the site.

Underneath the topsoil/Pavement structure, fill material was encountered in boreholes. The depth of fill in boreholes (BH1- BH3) ranged from 1.5m to 1.8m below the existing ground surface. The explored fill generally consisted of brown, loose to very loose sandy silt and typically in moist condition. Noted that the depth of fill can vary in area of existing structures and/or in previous excavations at the site.

Native deposit was encountered underlying the fill layer in boreholes. The native deposits predominantly consisted of wet, brown and compact to very dense sand and silt till with some clay & trace gravel. The native deposits turned grey towards the lower depths varying from 5m-6m.

During drilling and at the completion of drilling, the short term (not stabilized) groundwater was observed in boreholes (BH1-BH3) at approximate depths of 1.5m to 2.3m. A perched water condition may occur due to the accumulation of surface water at the interface of fill and native deposits. It should be noted that groundwater levels vary and are subjected to seasonal fluctuations and can respond to major precipitation events. The depth of groundwater table can also be influenced by the presence of underground features such as utility trenches.

The proposed structure foundations can be supported on conventional spread and/or strip footings founded on the undisturbed native soil at minimum 2m below the existing grades at the locations of boreholes (BH1 to BH3) for a geotechnical reaction of 150 kPa at the Serviceability Limit States (SLS) and a factored geotechnical resistance (with geotechnical resistance factor of 0.5) of 225 kPa at the Ultimate Limit State (ULS). The recommended founding levels and geotechnical resistance for the proposed development will need to be confirmed by Orbit at the time of construction. Higher bearing pressures are available at deeper depths, if required.

The floor slab with and without basement can also be supported on grade provided the existing fill and surficial weak/softened native soil are removed and the base thoroughly proof rolled. Any soft or unstable areas detected are further sub-excavated and replaced with imported Granular A and/or Granular B

Type 2 material. The imported granular material must meet the specifications defined in OPSS-1010-13 or the latest version. The existing fill free from topsoil and organics may be used to raise the grade, provided it should be confirmed by a qualified geotechnical professional from Orbit at the time construction. The fill required to raise the grade must be placed in shallow lifts (each lift not more than 200mm) and compacted to at least 98 percent of Standard Proctor Maximum Dry Density (SPMDD).

All excavations must be carried out in accordance with the most recent Occupational Health and Safety Act (OHSA). In accordance with OHSA, on-site fill material and compact sand & silt deposits can be classified as Type 3 soil, and very dense sand and silt deposits above the groundwater table can be classified as Type 2 soil. Sand and Silt deposit below the groundwater table can be classified as Type 4. As a general rule, the excavations in Type 2 soils can be carried out without support using side slopes 1H:1V, while the bottom 1.2m of the excavation can be cut vertically and could retain the wall for a short period of time. The excavations in Type 3 soils can be carried out without support using side slopes 1H: 1V with no vertical cut. The excavations in Type 4 soils will require minimum flatter side slopes of 3H to 1V. These slopes should be visually monitored for any movement especially if workers are present within the excavation. These temporary slopes should only be utilized for a short duration (not more than a day). If an excavation contains more than one type of soil, the soil shall be classified as the type with the highest number among the types present.

The excavation can be carried out with heavy hydraulic backhoes. No major iiground water problems are anticipated for the installation of foundations to an approximate depth of 2m±. Seepage from the interface of fill and native soils should be expected but in all likelihood water seepage should be controllable by the use of conventional pumping from collection sumps and ditches for most excavations. Contractors should be prepared to employ more elaborate dewatering procedures if the flow from sand seams or pockets becomes a problem.

Based on the borehole information, the subject site for the proposed structure can be classified as Class ‘D’ for seismic site response according to Table 4.1.8.4.A of OBC 2015, provided the footings will be supported on undisturbed native deposits. Consideration could be given to conduct an earthquake site assessment with the use of in-situ testing of the seismic characteristics (i.e., Geophysical testing – Multi-channel Analysis of Surface Waves-MASW) which may lead to an improved site classification (i.e., from Class D to Class C).

TABLE OF CONTENTS

TABLES

DRAWINGS

APPENDICES

1 INTRODUCTION

Orbit Engineering Limited (Orbit) was retained by City of Toronto to undertake a Geotechnical Investigation Report for the Proposed Development for the proposed residential development at 37 Norton Ave, North York, ON. The site plan and approximate location of proposed development are shown on **Drawings 1** and **1A,** respectively.

This work was conducted under the Purchase Order # 3624714, dated March 31, 2023, issued by the City of Toronto.

Based on the information provided by the City staff to Orbit, it is our understanding that the existing residential structures (i.e., including two-storeys with one level of basement) at the site will be demolished for the proposed development. The details of proposed development and/or structures were not known while writing this report.

The purpose of this investigation was to assess the subsurface conditions at three (3) boreholes (BH1 – BH3), and from these field findings make geotechnical engineering recommendations for the following:

1. Foundations
2. Floor slab and drainage
3. Excavations and backfill
4. Earth pressure
5. Earthquake considerations

This report is provided on the basis of the terms of reference presented above and on the assumption that the design will be in accordance with the applicable codes and standards. If there are any changes in the design features relevant to the geotechnical analyses, or if any questions arise concerning the geotechnical aspects of the codes and standards, this office should be contacted to review the design. It may then be necessary to carry out additional borings and reporting before the recommendations of this office can be relied upon.

The site investigation and recommendations follow generally accepted practice for geotechnical consultants in Ontario. The format and contents are guided by client specific needs and economics and do not conform to generalized standards for services. Laboratory testing for most part follows ASTM or CSA Standards or modifications of these standards that have become standard practice.

This report has been prepared for City of Toronto and its designers. Third party use of this report without Orbit consent is prohibited. The limitation conditions presented in **Appendix A** form an integral part of the report and they must be considered in conjunction with this report.

2 FIELD AND LABORATORY WORKS

Three (3) boreholes were drilled to approximate depth of 6.7m below the existing ground surface (i.e., borehole (BH1 – BH3) for proposed development. Borehole locations for this investigation were marked on the ground by Orbit personnel in accordance with the client requirements. The boreholes were advanced at the site on April 12, 2023, by a specialist drilling sub-contractor (Whittles Drilling) under full-time supervision of Orbit staff with a Geo-probe drill rig using continuous-flight equipment hollow stem augers.

Prior to drilling operations, underground utilities were cleared at the borehole locations by representatives of the public and private utilities company working with personnel from Orbit. The approximate borehole locations are shown on **Drawing 1A**.

Samples were retrieved at regular intervals with a 50mm O.D. split-barrel sampler driven with a hammer weighing 63.5kg and dropping 760mm in accordance with the Standard Penetration Test (SPT) method (ASTM D1586). The number of blows of the hammer required to drive the sampler into the relatively undisturbed ground by a vertical distance of 300mm (12 inches) was recorded as SPT 'N' value of the soil which indicated the consistency of cohesive soils or compactness of non-cohesive soils. The results of SPT are shown on the Record of Boreholes (**Drawings 2 to 4**).

The samples were logged in the field and returned to the Orbit laboratory for detailed examination by the project engineer and for laboratory testing. As well as visual examination in the laboratory, all soil samples were tested for water content and selected samples for soil gradation and index testing.

3 SITE AND SUBSURFACE CONDITIONS

The project site is located at the 37 Norton Ave, North York, ON. A total of three (3) boreholes (BH1 to BH4) were advanced at this site.

The project site location plan is presented on **Drawing 1**. The approximate borehole locations are shown on **Drawing 1A**. Notes on sample descriptions and the general features of fill material and native soil are presented on **Drawing 1B**. **Drawings 2 to 4** provide detailed subsurface conditions at the locations of boreholes (BH1 to BH3) on the Borehole Logs. The borehole logs indicate the subsurface conditions only at the borehole locations. Note the material boundaries indicated on the attached logs are approximate and based on visual observations. These boundaries typically represent a transition from one material type to another and should not be regarded as an exact plane of geological change. It should be pointed out that the subsurface conditions will vary across this site. The soil and groundwater conditions are summarized as follows.

3.1 Soil Conditions

The soils explored in the boreholes generally consisted of surficial topsoil/Pavement, fill and native soil layers.

3.1.1 Topsoil

A topsoil layer was encountered at the location of BH2 & BH3 with approximate thickness of 150mm-200mm. The data provided here pertaining to the topsoil thickness is confirmed at the borehole location only and may vary between and beyond the borehole. This information is not considered to be sufficient for estimating topsoil quantities and associated costs.

3.1.2 Pavement

One borehole BH1 was drilled on the existing pavement structure (i.e., Parking area) encountered 35mm thickness of asphalt overlying on 30mm granular base.

3.1.3 Fill

Underneath the topsoil/Pavement structure, fill material was encountered in boreholes. The depth of fill in the boreholes (BH1- BH3) ranged from 1.5m to 1.8m below the existing ground surface. The explored fill generally consisted of brown, loose to very loose sandy silt and typically in moist condition. Noted that the depth of fill can vary in the area of existing structures or in the area of previous excavation at the site.

3.1.4 Native

Native deposit was encountered underlying the fill layer in boreholes. The native deposits predominantly consisted of wet, brown and compact to very dense sand and silt till with some clay & trace gravel. The native deposits turned grey towards the lower depths of 5.1m-6.0m.

Typical grain size distribution results of selected soil samples (BH1-SS4,SS5) from the native deposit were performed and are presented on the relevant borehole logs on Drawings 2 to 4 and also on Figure **B1** in **Appendix B**. These results show the following gradation:

Gravel:	2 - 3%
Sand:	37 -38%
Silt:	37 -38%
Clay:	22 - 23%

3.2 Groundwater Conditions

During drilling and at the completion of drilling, the short term (not stabilized) groundwater was observed in boreholes (BH1-BH3) at an approximate depth of 1.5m to 2.3m. A perched water condition may occur due to the accumulation of surface water at the interface of fill and native deposits. It should be noted that groundwater levels vary and are subjected to seasonal fluctuations and can respond to major precipitation events. The depth of groundwater table can also be influenced by the presence of underground features such as utility trenches.

4 ENGINEERING DISCUSSIONS

Based on the information provided by the City staff to Orbit, it is our understanding that the existing residential structures (i.e., including two-storeys with one level of basement) at the site will be demolished for the proposed development. The details of proposed development and/or structures were not known while writing this report.

The following discussion and recommendations are based on the factual data obtained from this investigation and are presented for guidance of the design professionals only.

Contractors bidding or providing services on this project should review the data and determine their own conclusions regarding required construction methods and scheduling.

4.1 Foundations

The proposed structure foundations can be supported on conventional spread and/or strip footings founded on the undisturbed native soil at minimum depth of 2m below the existing grades at the locations of boreholes (BH1 to BH3) for a geotechnical reaction of 150 kPa at the Serviceability Limit States (SLS) and a factored geotechnical resistance (with geotechnical resistance factor of 0.5) of 225 kPa at the Ultimate Limit State (ULS). The recommended founding levels and geotechnical resistance for the proposed development will need to be confirmed by Orbit at the time of construction.

Noted that the depth of the footing can vary in the area of existing structures and/or previous excavations at the site.

In the vicinity of the existing buried utilities, all footings must be lowered to undisturbed soils, or alternatively, the services must be structurally bridge.

If applicable, where the footing extends to the cohesionless soils, the base of footings can easily be disturbed by foot traffic and should be covered by 50mm of skim coat concrete immediately after cleaning and inspection.

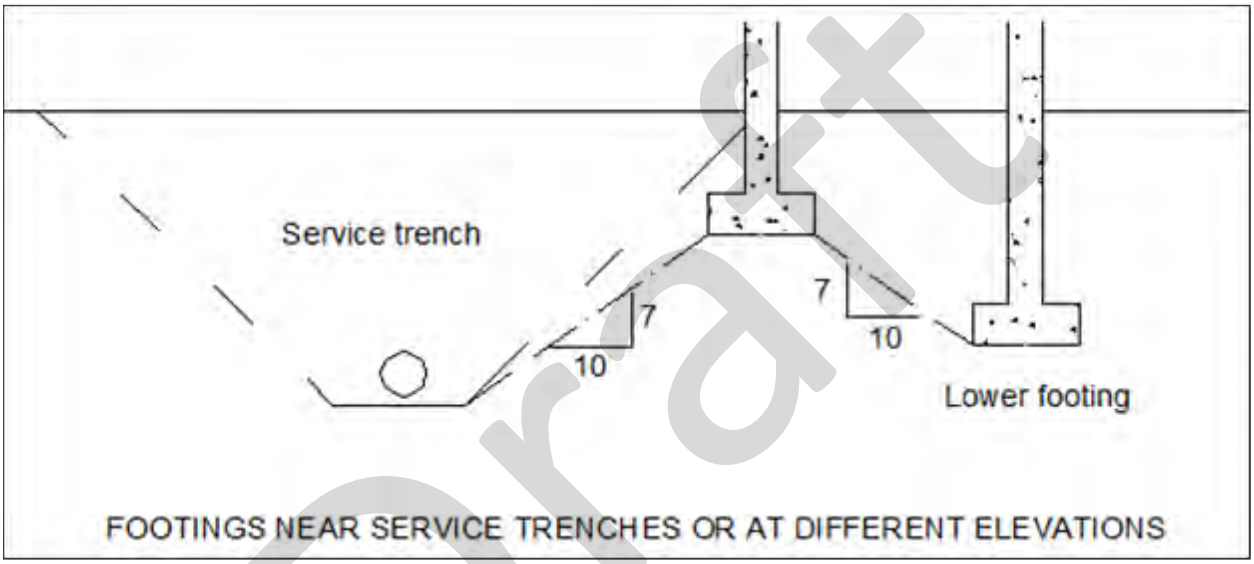
During winter construction, foundations and slab on grade must not be poured on frozen soil. Foundations must always be adequately protected from cold weather and freezing conditions.

Footings exposed to seasonal freezing conditions should be provided with at least 1.2m of earth cover or equivalent thermal insulation against frost action. Foundations designed to the specified bearing capacity at the serviceability limit states (SLS) are expected to settle less than 25mm total and 19mm differential.

Where it is necessary to place footings at different levels, the upper footing must be founded below an imaginary 10 horizontal to 7 vertical line drawn up from the base of the lower footing. The lower footing must be installed first to help minimize the risk of undermining the upper footing. Should any excavation extend below the existing footing within the influence zone of imaginary 10 horizontal to 7 vertical line

from the base of the existing footing, underpinning will be required. Footings close to underground services should also be set back from the services based on this slope limitation as shown on the following figure.

The recommended bearing capacities and the corresponding founding elevations would need to be confirmed by the representative of Orbit during construction. It should be noted that the recommended bearing capacities have been calculated by Orbit from the borehole information for the design stage only. The investigation and comments are necessarily on-going as new information of the underground conditions becomes available. For example, more specific information is available with respect to conditions between boreholes when foundation construction is underway. The interpretation between boreholes and the recommendations of this report must therefore be checked through field inspections provided by Orbit to validate the information for use during the construction stage.



FOOTINGS NEAR SERVICE TRENCHES OR AT DIFFERENT ELEVATIONS

4.2 Floor Slab and Drainage.

The floor slab with or without basement can also be supported on grade provided the existing fill and surficial weak/softened native soil are removed and the base thoroughly proof rolled. Any soft or unstable areas detected are further sub-excavated and replaced with imported Granular A and/or Granular B Type 2. The imported granular material must meet the specifications defined in OPSS-1010-13. The existing fill free from topsoil and organics may be used to raise the grade, provided it should be confirmed by a qualified geotechnical professional from Orbit at the time construction. The fill required to raise the grade must be placed in shallow lifts (each lift not more than 200mm) and compacted to at least 98 percent of Standard Proctor Maximum Dry Density (SPMDD).

A moisture barrier consisting of at least 200mm thick layer of well compacted 19mm clear crushed stone is recommended to place directly under the floor slab. The stone bed would act as a barrier and prevent capillary rise of moisture from the subgrade to the floor slab. This moisture barrier has been proven to be effective for conventional floor surfaces such as carpet, vinyl tile and ceramic tile. However, if special floor

coverings such as sheet P.V.C. with heat sealed seams, as is used in gymnasiums, is considered, either a high efficiency vapour barrier or venting may be required to prevent moisture accumulating between the concrete floor and the P.V.C. flooring.

The estimated modulus of subgrade reaction (ks) equal to 25MN/m^3 may be used for the design of slab-on-grade supported on native soils, provided that the construction is in accordance with the recommendations provided herein. If the engineered fill (Granular A or B Type II) having minimum thickness of 300mm, this value can be increased to 30MN/m^3. The estimated value provided above may need to be adjusted based on the structure size and locations of detail design.

The floor slabs should not be tied to any load-bearing walls or columns unless they have been designed accordingly. Contraction/expansion joints should be provided for the slabs as required by the structural engineer.

(Assuming the proposed structure without basement), if the floor slab is more than about 200 mm higher than the exterior grade, then perimeter drainage is not considered to be necessary. If the floor is lower, then use of a perimeter drainage system (**Drawing 5**) is recommended.

It should be noted that permanent, fail safe drainage should be designed around any depressed areas such as below grade pits, as well as behind retaining walls (if applicable).

Frost Slab or adequate thermal insulation is required for any exterior slab which is sensitive to movement (e.g., sidewalk in front of the doors). The remaining portion of the exterior slab which is not sensitive to movement (e.g., regular sidewalks) does not require thermal insulation subject to placement of adequate granular base (min 200mm to 300mm thick), and positive drainage of the granular base. Differential frost heave should be expected where frost slab (or slab with thermal insulation) about the slab without any thermal insulation (e.g. away from the doors) or asphalt.

Assuming the proposed structure with basement), a perimeter drainage system and one row of underfloor drainage will be required along the exterior basement walls. The perimeter drainage system shown on **Drawing 6** is recommended for the basement walls where open cut procedures are used.

Considering the underground parking basement floor slab below the water table, the perimeter and underfloor drainage must be installed. As sand and silt till deposit exists below the groundwater table, filter cloth such as Terrafix 270R or equivalent must cover the subgrade, all drains, clear stone, and other openings.

4.3 Excavations and Backfill

The excavation can be carried out with heavy hydraulic backhoes. No major groundwater problems are anticipated for the installation of foundations to an approximate depth of 2m±. Seepage from the interface of fill and native soils should be expected but in all likelihood water seepage should be controllable by the use of conventional pumping from collection sumps and ditches for most excavations. Contractors should

be prepared to employ more elaborate dewatering procedures if the flow from sand seams or pockets becomes a problem.

All excavations must be carried out in accordance with the most recent Occupational Health and Safety Act (OHSA). In accordance with OHSA, on-site fill material and compact sand & silt deposits can be classified as Type 3 soil, and very dense sand and silt deposits above the groundwater table can be classified as Type 2 soil. Sand and Silt deposit below the groundwater table can be classified as Type 4. As a general rule, the excavations in Type 2 soils can be carried out without support using side slopes 1H:1V, while the bottom 1.2m of the excavation can be cut vertically and could retain the wall for a short period of time. The excavations in Type 3 soils can be carried out without support using side slopes 1H: 1V with no vertical cut. The excavations in Type 4 soils will require minimum flatter side slopes of 3H to 1V. These slopes should be visually monitored for any movement especially if workers are present within the excavation. These temporary slopes should only be utilized for a short duration (not more than a day). If an excavation contains more than one type of soil, the soil shall be classified as the type with the highest number among the types present.

The existing fill free from topsoil and organics can be used as general construction backfill where it can be adequately compacted with suitable type compactors. Loose lifts of soil, which are to be compacted, should not exceed 200mm. It should be noted that the excavated soils are subject to moisture content increase during wet weather which would make these materials too wet for adequate compaction. Stockpiles should be compacted at the surface or be covered with tarpaulins to minimize moisture intake.

Imported granular fill, which can be compacted with handheld equipment, should be used in confined areas.

The excavated soils are not considered to be free draining. Where free draining backfill is required, imported granular fill such as OPSS Granular B should be used.

Stockpiles should be placed well away from the edge of excavation and their height should be controlled so that they do not surcharge the sides of the excavation. Surface drainage should be controlled to prevent flow of surface water into the excavations. Excavation safety and stability of temporary construction slopes and lateral support systems are the contractor's responsibility.

During winter construction, concrete and/or fill must not be placed on frozen fill or soil. Subgrades and foundations must always be placed adequately protected from cold weather and freezing conditions.

4.4 Earth Pressure

The lateral earth pressures acting on retaining walls (if any) may be calculated from the following expression:

$$p = K (\gamma h + q)$$

where:

- p: Lateral earth pressure in kPa acting at depth h
- K: Earth pressure coefficient equal to 0.4 for vertical walls and horizontal backfill used for permanent construction. Water pressure must be considered if continuous wall drains are not used.
- ¥: Unit weight of backfill, a value of 20.5 kN/m^3 may be assumed
- h: Depth to point of interest in meters
- q: Equivalent value of surcharge on the ground surface in kPa

The above expression assumes that the perimeter drainage system prevents the build-up of any hydrostatic pressure behind the wall.

4.5 Earthquake Consideration

Based on the borehole information, the subject site for the proposed structure can be classified as Class 'D' for seismic site response according to Table 4.1.8.4.A of OBC 2015, provided the footings will be supported on undisturbed native deposits. Consideration could be given to conduct an earthquake site assessment with the use of in-situ testing of the seismic characteristics (i.e., Geophysical testing – Multi-channel Analysis of Surface Waves-MASW) which may lead to an improved site classification (i.e., from Class D to Class C).

4.6 Pavements

The recommended pavement structure presented in the following **Table 4.1** is based upon an estimate of the subgrade soil properties determined from visual examination and textural classification of the soil samples. Consequently, the recommended pavement structures should be considered for preliminary design purposes only. A functional design life of eight to ten years has been used to establish the pavement recommendations. This represents the number of years to the first rehabilitation, assuming regular maintenance is carried out. If required, a more refined pavement structure design can be performed based on specific traffic data and design life requirements and will involve specific laboratory tests to determine frost susceptibility and strength characteristics of the subgrade soils, as well as specific data input from the client. Regular maintenance will be required due to the nature of the underlying fill material.

Table 4.1 Recommended Pavement Structure Thickness

Pavement Layer	Compaction Requirements	Light Duty Parking for driveway	Heavy Duty Parking
Asphaltic Concrete (wearing course)	92 to 96.5% SPMDD*	40mm OPSS HL3	40mm OPSS HL3
Asphaltic Concrete (binder course)		40mm OPSS HL8	80mm OPSS HL8
OPSS Granular A Base (or 20mm Crushed Limestone)	100% SPMDD*	150mm	150mm
OPSS Granular B Subbase (or 50mm Crusher Run Limestone)	100% SPMDD*	250mm	300mm
* Denotes Standard Proctor Maximum Dry Density, ASTM-D698			

Additional comments on the construction of parking areas and access roadways are as follows:

1. As part of the subgrade preparation, proposed parking areas and access roadways should be stripped of all topsoil, loose to very loose fill and/or native soil materials within a minimum depth of 0.6m below the underside of the designed subbase and then thoroughly proof rolled by using a loaded truck or a roller with a minimum rated capacity of 20 tons, under the full-time supervision of Orbit. Any localized soft or unstable areas detected must be further sub-excavated and bridged by using clean fill materials similar to adjacent areas placed in shallow lifts (maximum 200mm thick and at or near "±2%" optimum moisture contents) and compacted to at least 98 percent of Standard Proctor Maximum Dry Density (SPMDD). Similarly, the fill required to raise the grade should consist of inorganic soil, placed in the shallow lifts and compacted to the aforementioned SPMDD requirements.

2. The long-term performance of the pavement structure is highly dependent upon the subgrade support conditions. Stringent construction control procedures should be maintained to ensure uniform subgrade moisture and density conditions are achieved. In addition, the need for adequate drainage cannot be over-emphasized. The finished pavement surface and underlying subgrade should be free of depressions and should be sloped (preferably at a minimum grade of two percent) to provide effective surface drainage toward catch basins. Surface water should not be allowed to pond adjacent to the outside edges of pavement areas. Continuous pavement subdrains should be provided along both sides of the driveway/access routes and drained into respective catchbasins to facilitate drainage of the subgrade and granular materials. This is particularly important in heavy-duty pavement areas. The subdrain invert should be maintained at least 0.3m below subgrade level. Subdrains should also be provided at all catch basins within the parking area.

3. The locations and extent of sub-drainage required within the paved areas should be reviewed by this office in conjunction with the proposed lot grading. Assuming that satisfactory crossfalls in the order of two percent have been provided, subdrains extending from and between catch basins may be satisfactory. In the event that shallower crossfalls are considered, a more extensive system of sub-drainage may be necessary and should be reviewed by Orbit.

4. The above pavement structure considers that construction will be carried out during the dry period of the year. If the subgrade becomes excessively wet or rutted during construction activities, additional sub-base material or placement of geogrids may be required. The need for additional sub-base material and/or placement of geogrids including filter fabric to stabilize the base is best determined during construction. It is recommended that the existing subgrade be heavily proof-rolled prior to placement and any areas showing excessive deflection be replaced prior to placing the granular sub-base material.

5. The most severe loading conditions on light-duty pavement areas and the subgrade may occur during construction. Consequently, special provisions such as restricted access lanes, half-loads during paving, etc., may be required, especially if construction is carried out during unfavourable weather.

6. It is recommended that Orbit be retained to review the final pavement structure designs and drainage plans prior to construction to ensure that they are consistent with the recommendations.

4.7 Vibration Monitoring

Vibrations generated from construction related activities, such as demolition or excavations to remove the existing basement structures or any possible piling activities (if applicable) adjacent to the existing residential building structures must be monitored to ensure that they are not exceeding the safe limits causing ground settlement, thereby causing adverse impacts and structural damage to the existing structures in the vicinities.

Orbit has a qualified team and is prepared to monitor vibration levels when required. Minimum one week notice will be required to mobilize the services for vibration monitoring.

4.8 Designated Substance Survey

It is our understanding that the existing residential building structure (i.e., two-storeys with one level of basement) will undergo demolition. The Occupational Health and Safety Act (OHSA- RSO 0.1/90) defines Designated Substances as materials which require special provisions for handling, storage, or disposal in the event of disturbance by demolition or renovation. OHSA legislation provides regulations to prescribe worker exposure limits, handling and disposal practices for specific Designated Substances.

In light of information provided by the client to Orbit, it is recommended that a designated substance survey must be carried out prior to any demolition or renovation activities at the site.

Orbit is qualified and prepared to undertake this survey upon authorization.

5 GENERAL COMMENTS

The recommended bearing capacities and the corresponding founding elevations would need to be confirmed by the representative of Orbit during construction. It should be noted that the recommended bearing capacities have been calculated by Orbit from the borehole information for the design stage only. The investigation and comments are necessarily on-going as new information of the underground conditions becomes available. For example, more specific information is available with respect to conditions between boreholes when foundation construction is underway. The interpretation between boreholes and the recommendations of this report must therefore be checked through field inspections provided by Orbit to validate the information for use during the construction.

In this regard, Orbit should be retained for a general review of the final design and specifications to verify that this report has been properly interpreted and implemented. If not accorded the privilege of making this review, Orbit will assume no responsibility for interpretation of the recommendations in the report.

The comments given in this report are intended only for the guidance of design engineers. The number of boreholes required to determine the localized underground conditions between boreholes affecting construction costs, techniques, sequencing, equipment, scheduling, etc., would be much greater than has been carried out for design purposes. Contractors bidding on or undertaking the works should, in this light, decide on their own investigations, as well as their own interpretations of the factual borehole results, so that they may draw their own conclusions as to how the subsurface conditions may affect them.

The information in this report in no way reflects on the environmental aspects of the soil condition at the site and has not been specifically addressed in this report, since this aspect was beyond the scope and terms of reference. Should specific information be required, additional testing may be required.

6 CLOSURE

We trust that the information contained in this report is satisfactory. Should you have any questions, please do not hesitate to contact this office.

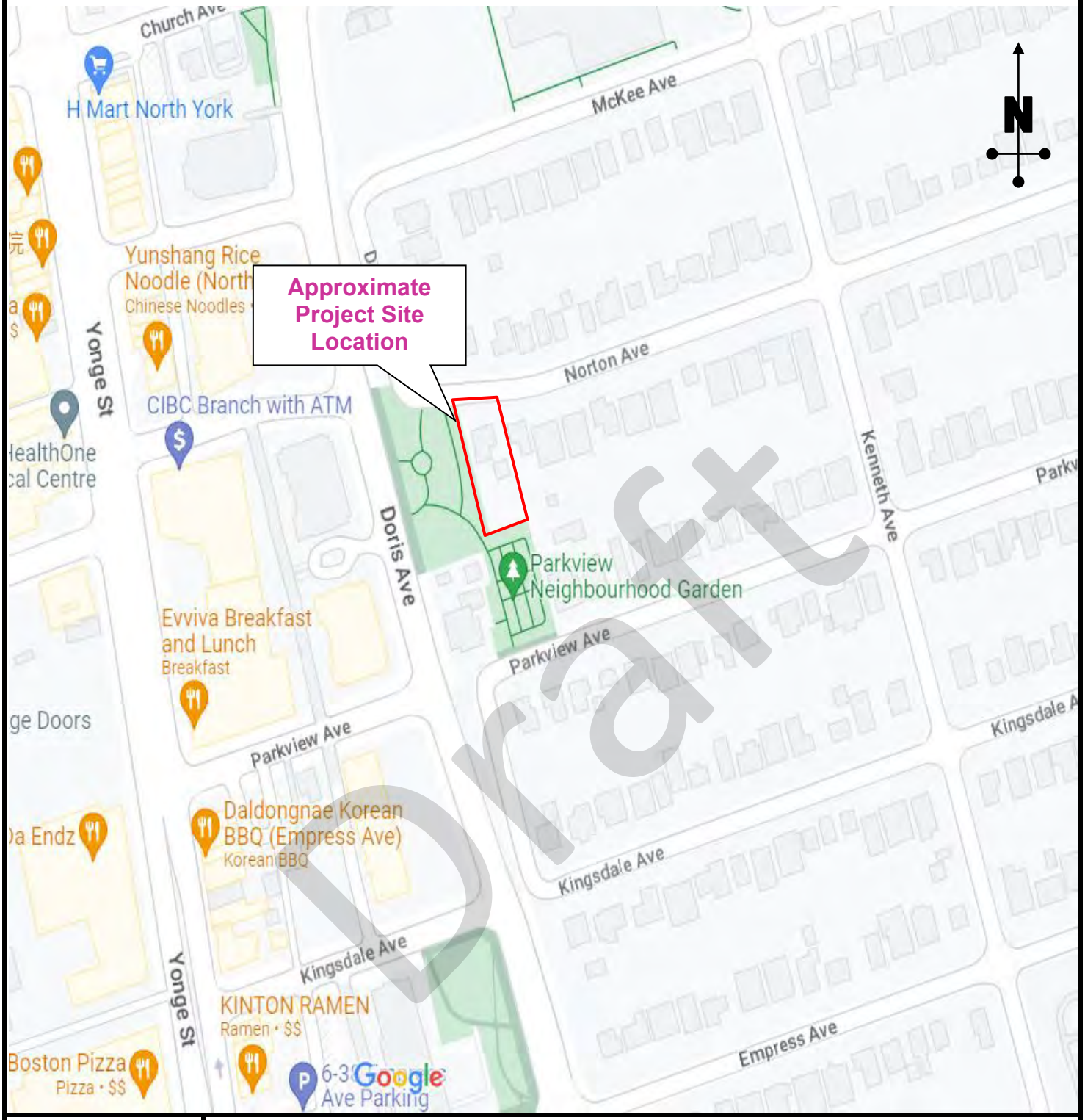
For and on behalf of Orbit,

Aly Ahmed, Ph.D., P.Eng
Senior Engineer

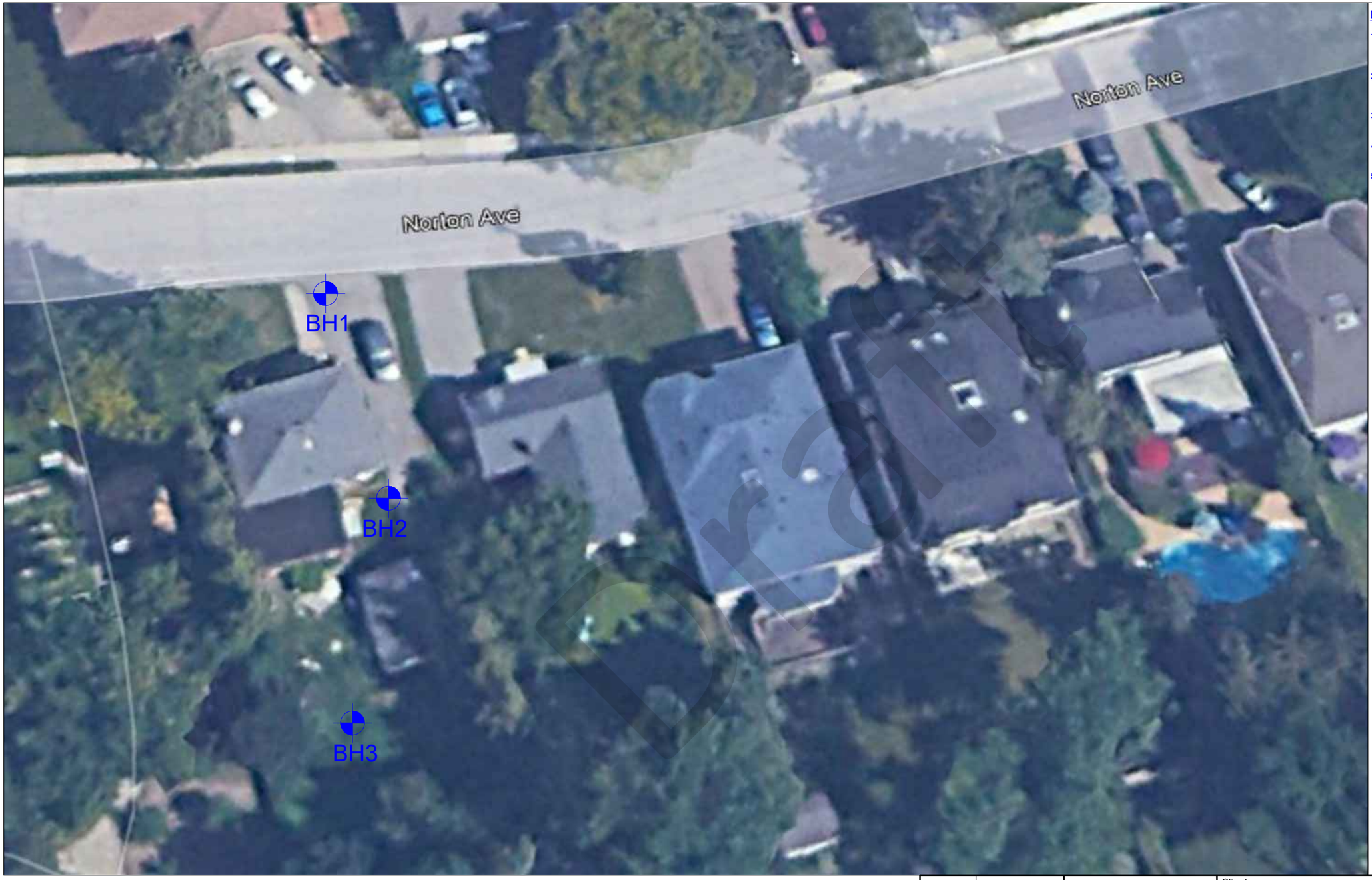
Reviewed by:

Hafiz Muneeb Ahmad, M.Eng., M.Sc., P.Eng., QP_{ESA}
Senior Principal

Drawings



ORBITENGINEERING	**APPROXIMATE SITE LOCATION PLAN**		
	Date: **April 2023**	**Geotechnical Investigation** **Proposed Developement** **37 Norton Ave, North York, ON**	Prepared By: **FM**
	Project: **OE231465EG**		Reviewed By: **HA**
		Prepared for: **City of Toronto**	Drawing No. **1**



NOTES:

1. The boundaries and soil types have been established only at borehole locations. Between boreholes they are assumed and may be subject to considerable error.
2. Soil samples will be retained in storage for three months and then destroyed unless the client advises an extended time period is required.
3. Granular base fill quantities should not be established from the information provided at the borehole locations.
4. Borehole elevations should not be used to design building(s) or floorslab(s) or parking lot(s) grades.
5. This drawing forms part of the report (project number as referenced) and should only be used in conjunction with this report.

LEGEND

Approximate Borehole Location

Drawn	FM
Approved	HA
Date	APR 2023
Scale	AS SHOWN
Original size	TABLOID

ORBITENGINEERING
Consulting Engineers

Client: CITY OF TORONTO

Project: GEOTECHNICAL INVESTIGATION
PROPOSED DEVELOPEMENT
37 NORTON AVE, NORTH YORK,ON

Title: APPROXIMATE BOREHOLE LOCATION PLAN

Project no: OE231465EG

Drawing no: 1A

DRAWING 1B: NOTES ON SAMPLE DESCRIPTIONS

1. **All sample descriptions included in this report follow the Canadian Foundations Engineering Manual soil classification system. This system follows the standard proposed by the International Society for Soil Mechanics and Foundation Engineering. Laboratory grain size analyses provided by Orbit Engineering Limited also follow the same system. Different classification systems may be used by others; one such system is the Unified Soil Classification. Please note that, with the exception of those samples where a grain size analysis has been made, all samples are classified visually. Visual classification is not sufficiently accurate to provide exact grain sizing or precise differentiation between size classification systems.**

ISSMFE SOIL CLASSIFICATION

CLAY	SILT			SAND			GRAVEL			COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE		

0.002 0.006 0.02 0.06 0.2 0.6 2.0 6.0 20 60 200

EQUIVALENT GRAIN DIAMETER IN MILLIMETRES

CLAY (PLASTIC) TO	FINE	MEDIUM	CRS.	FINE	COARSE
SILT (NONPLASTIC)	SAND			GRAVEL	

UNIFIED SOIL CLASSIFICATION

2. **Fill: Where fill is designated on the borehole log it is defined as indicated by the sample recovered during the boring process. The reader is cautioned that fills are heterogeneous in nature and variable in density or degree of compaction. The borehole description may therefore not be applicable as a general description of site fill materials. All fills should be expected to contain obstruction such as wood, large concrete pieces or subsurface basements, floors, tanks, etc.; none of these may have been encountered in the boreholes. Since boreholes cannot accurately define the contents of the fill, test pits are recommended to provide supplementary information. Despite the use of test pits, the heterogeneous nature of fill will leave some ambiguity as to the exact composition of the fill. Most fills contain pockets, seams, or layers of organically contaminated soil. This organic material can result in the generation of methane gas and/or significant ongoing and future settlements. Fill at this site may have been monitored for the presence of methane gas and, if so, the results are given on the borehole logs. The monitoring process does not indicate the volume of gas that can be potentially generated nor does it pinpoint the source of the gas. These readings are to advice of the presence of gas only, and a detailed study is recommended for sites where any explosive gas/methane is detected. Some fill material may be contaminated by toxic/hazardous waste that renders it unacceptable for deposition in any but designated land fill sites; unless specifically stated the fill on this site has not been tested for contaminants that may be considered toxic or hazardous. This testing and a potential hazard study can be undertaken if requested. In most residential/commercial areas undergoing reconstruction, buried oil tanks are common and are generally not detected in a conventional geotechnical site investigation.**

3. **Till: The term till on the borehole logs indicates that the material originates from a geological process associated with glaciation. Because of this geological process the till must be considered heterogeneous in composition and as such may contain pockets and/or seams of material such as sand, gravel, silt or clay. Till often contains cobbles (60 to 200 mm) or boulders (over 200 mm). Contractors may therefore encounter cobbles and boulders during excavation, even if they are not indicated by the borings. It should be appreciated that normal sampling equipment cannot differentiate the size or type of any obstruction. Because of the horizontal and vertical variability of till, the sample description may be applicable to a very limited zone; caution is therefore essential when dealing with sensitive excavations or dewatering programs in till materials.**

ORBITENGINEERING

LOG OF BOREHOLE BH1

PROJECT: Geotechnical Investigation
CLIENT: City Of Toronto
PROJECT LOCATION: 37, Norton Avenue, North york, ON
DATUM: Geodetic
BH LOCATION: See Borehole Location Plan1A N 4847813.46 E 627861.83

DRILLING DATA
Method: Hollow Stem Auger
Diameter: 200mm
Date: Apr-12-2023

PROJECT NO.: OE231465EG
DRAWING NO.: 2

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS "N" 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**Asphalt :** 35mm											
0.1	**Granular base:** 30mm											
	Fill: sandy silt, some clay and gravel, brown, moist to wet, loose to very loose		1	SS	8				○			
			2	SS	3				○			
			3	SS	12				○			
1.8	**Sand And Silt Till:** some clay, trace gravel, brown, wet, compact											
	wet, very dense below 2.3m		4	SS	41				○			3 37 37 23
			5	SS	82				○			2 38 38 22
			6	SS	50/75mm				○			
	grey below 5.1m											
			7	SS	50/75mm				○			
6.7	**End of Borehole**											

Notes:
Water Levels:
(i) During Drilling: 2.3m
(ii) At Completion:1.5m

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

ORBITENGINEERING

LOG OF BOREHOLE BH2

PROJECT: Geotechnical Investigation
CLIENT: City Of Toronto
PROJECT LOCATION: 37, Norton Avenue, North york, ON
DATUM: Geodetic
BH LOCATION: See Borehole Location Plan 1A N 4847828.85 E 627852.67

DRILLING DATA
Method: Hollow Stem Auger
Diameter: 200mm
Date: Apr-12-2023

PROJECT NO.: OE231465EG
DRAWING NO.: 3

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION
0.0	**Topsoil:** 100mm						
0.1	**Fill:** sandy silt, some clay and gravel, brown, moist to wet, loose to very loose		1	SS	7		
			2	SS	2		
1.5	**Sandy And Silt Till:** some clay, trace gravel, brown, wet, compact		3	SS	10		
	wet below 2.0m						
	very dense below 2.3m		4	SS	38		
			5	SS	70		
			6	SS	50/100mm		
	grey below 6m		7	SS	50/100mm		
6.7	**End of Borehole**						

DYNAMIC CONE PENETRATION RESISTANCE PLOT
20 40 60 80 100

SHEAR STRENGTH (kPa)
○ UNCONFINED + FIELD VANE & Sensitivity
● QUICK TRIAXIAL × LAB VANE
20 40 60 80 100

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30

POCKET PEN. (Cu) (kPa)
NATURAL UNIT WT (kN/m³)
REMARKS AND GRAIN SIZE DISTRIBUTION (%)
GR SA SI CL

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES
+3, ×3: Numbers refer to Sensitivity
○ε=3% Strain at Failure

ORBITENGINEERING

LOG OF BOREHOLE BH3

PROJECT: Geotechnical Investigation
CLIENT: City Of Toronto
PROJECT LOCATION: 37, Norton Avenue, North york, ON
DATUM: Geodetic
BH LOCATION: See Borehole Location Plan 1A N 4847792.84 E 627862.21

DRILLING DATA
Method: Hollow Stem Auger
Diameter: 200mm
Date: Apr-12-2023

PROJECT NO.: OE231465EG
DRAWING NO.: 4

ELEV / DEPTH (m)	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION
0.0	**Topsoil:** 100mm						
0.1	**Fill:** sandy silt, some clay and gravel, brown, moist to wet, loose		1	SS	9		
			2	SS	5		
1.5	**Sand And Silt Till:** some clay, trace gravel, brown, wet, compact		3	SS	11		
	wet, very dense below 2.3m		4	SS	45		
			5	SS	78		
	grey below 5.8m		6	SS	50/100mm		
			7	SS	50/100mm		
6.7	**End of Borehole**						

DYNAMIC CONE PENETRATION RESISTANCE PLOT
20 40 60 80 100

SHEAR STRENGTH (kPa)
○ UNCONFINED + FIELD VANE & Sensitivity
● QUICK TRIAXIAL × LAB VANE
20 40 60 80 100

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30

POCKET PEN. (Cu) (kPa)

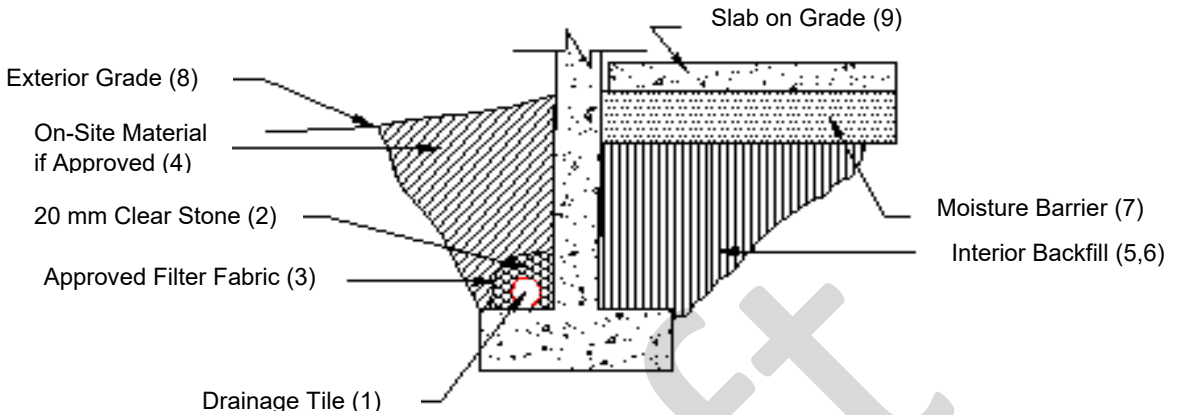
NATURAL UNIT WT (kN/m³)

REMARKS AND GRAIN SIZE DISTRIBUTION (%)
GR SA SI CL

Notes:
Water Levels:
(i) During Drilling: 2.3m
(ii) At Completion 2.0m

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES
+ 3, × 3: Numbers refer to Sensitivity
○ ε=3% Strain at Failure

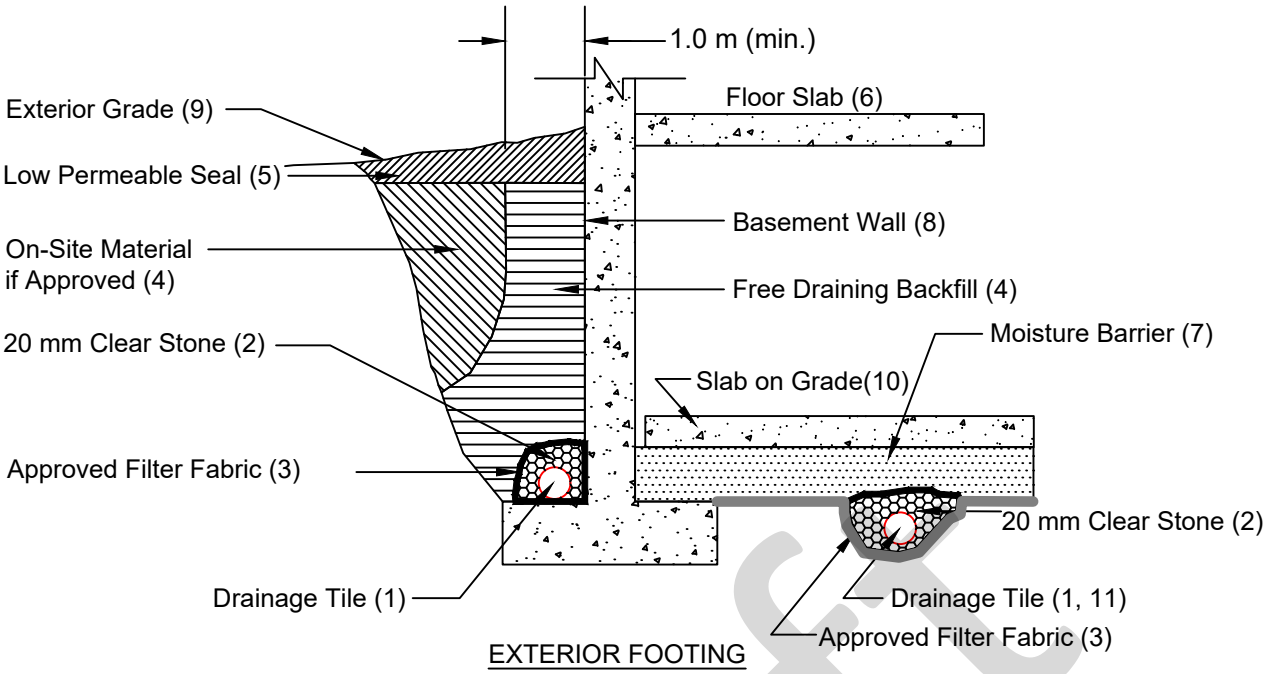


EXTERIOR FOOTING

Notes

1. **Drainage tile to consist of 100 mm (4") diameter weeping tile or equivalent perforated pipe leading to a positive sump or outlet.**
2. **20 mm (3/4") clear stone - 150 mm (6") top and side of drain. If drain is not on footing, place100 mm (4 inches) of stone below drain .**
3. **Wrap the clear stone with an approved filter fabric (Terrafix 380R or equivalent).**
4. **The on-site material, if approved, can be used as backfill.**
5. **The interior fill may be any clean non-organic soil which can be compacted to the specified density in this confined space.**
6. **Do not use heavy compaction equipment within 450 mm (18") of the wall. Do not fill or compact within 1.8 m (6') of the wall unless fill is placed on both sides simultaneously.**
7. **Moisture barrier to be at least 200 mm (8") of compacted clear 20 mm (3/4") stone or equivalent free draining material. A vapour barrier may be required for specialty floors.**
8. **Exterior grade to slope away from building.**
9. **Typically, slab on grade is not structurally connected to the wall or footing. However, if it is connected to the wall, it should be designed accordingly.**
10. **Review the geotechnical report for specific details. Final detail must be approved before system is considered acceptable**

DRAINAGE AND BACKFILL RECOMMENDATIONS
Slab on Grade Construction Without Underfloor Drainage
(not to scale)



EXTERIOR FOOTING

Notes

1. Drainage tile to consist of 100 mm (4") diameter weeping tile or equivalent perforated pipe leading to a positive sump or outlet.
2. 20 mm (3/4") clear stone - 150 mm (6") top and side of drain. If drain is not on footing, place100 mm (4 inches) of stone below drain .
3. Wrap the clear stone with an approved filter fabric (Terrafix 400R or equivalent).
4. Free Draining backfill - OPSS Granular B or equivalent compacted to the specified density. Do not use heavy compaction equipment within 450 mm (18") of the wall. Use hand controlled light compaction equipment within 1.8 m (6') of wall. The minimum width of the Granular 'B' backfill must be 1.0 m.
5. Low permeable backfill seal - compacted clay, clayey silt or paved with concrete/asphalt or equivalent. If original soil is free-draining, seal may be omitted. Maximum thickness of seal to be 0.5 m.
6. Do not backfill until wall is supported by basement and floor slabs or adequate bracing.
7. Moisture barrier to be at least 200 mm (8") of compacted clear 20 mm (3/4") stone or equivalent free draining material. A vapour barrier may be required for specialty floors.
8. Basement wall to be water proofed.
9. Exterior grade to slope away from building.
10. Typically slab on grade is not structurally connected to the wall or footing. However, if it is connected to the wall, it should be designed accordingly.
11. Underfloor drain invert to be at least 300 mm (12") below underside of floor slab.
12. Drainage tile placed in parallel rows 4 to 6 m (15 to 20') centers one way. Place drain on 100 mm (4") clear stone with 150 mm (6") of clear stone on top and sides. Enclose stone with filter fabric as noted in (3).
13. The entire subgrade to be sealed with approved filter fabric (Terrafix 400R or equivalent).
14. Do not connect the underfloor drains to perimeter drains.
15. Review the geotechnical report for specific details. Final detail must be approved before system is considered acceptable.

DRAINAGE AND BACKFILL RECOMMENDATIONS
Basement with Underfloor Drainage

(not to scale)

Appendices

Appendix A

Limitations of Report

LIMITATIONS OF REPORT

This report is intended solely for the Client named. The material in it reflects our best judgment in light of the information available to Orbit Engineering Limited at the time of preparation. Unless otherwise agreed in writing by Orbit Engineering Limited, it shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. No portion of this report may be used as a separate entity, it is written to be read in its entirety.

The conclusions and recommendations given in this report are based on information determined at the testhole locations. The information contained herein in no way reflects on the environment aspects of the project, unless otherwise stated. Subsurface and groundwater conditions between and beyond the testholes may differ from those encountered at the testhole locations, and conditions may become apparent during construction, which could not be detected or anticipated at the time of the site investigation. The benchmark and elevations used in this report are primarily to establish relative elevation differences between the testhole locations and should not be used for other purposes, such as grading, excavating, planning, development, etc.

The design recommendations given in this report are applicable only to the project described in the text and then only if constructed substantially in accordance with the details stated in this report.

The comments made in this report on potential construction problems and possible methods are intended only for the guidance of the designer. The number of testholes may not be sufficient to determine all the factors that may affect construction methods and costs. For example, the thickness of surficial topsoil or fill layers may vary markedly and unpredictably. The contractors bidding on this project or undertaking the construction should, therefore, make their own interpretation of the factual information presented and draw their own conclusions as to how the subsurface conditions may affect their work. This work has been undertaken in accordance with normally accepted geotechnical engineering practices.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Orbit Engineering Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

We accept no responsibility for any decisions made or actions taken as a result of this report unless we are specifically advised of and participate in such action, in which case our responsibility will be as agreed to at that time. Any user of this report specifically denies any right to claims against the Consultant, Sub-Consultants, their officers, agents and employees in excess of the fee paid for professional services.

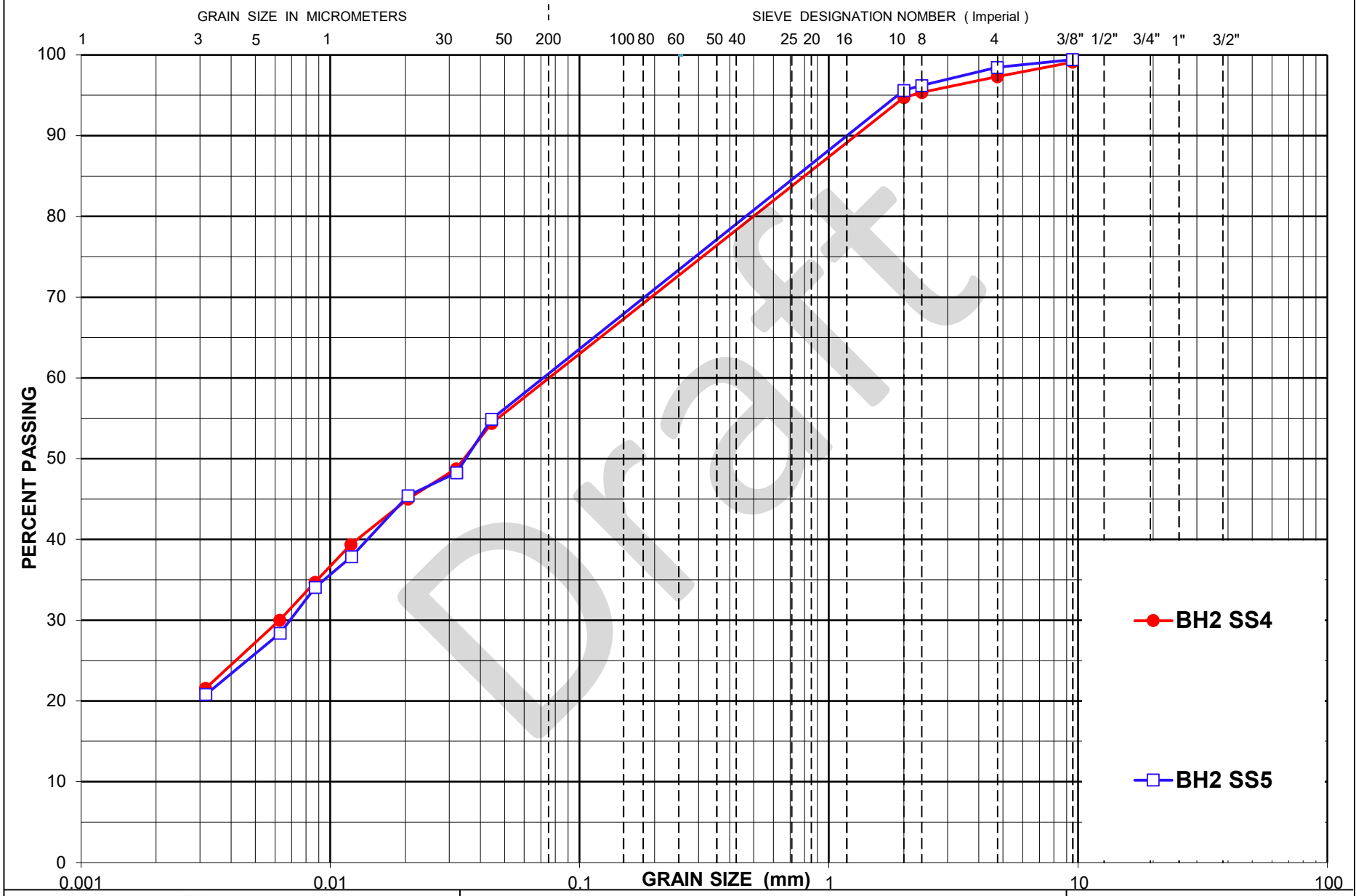
Appendix B

Geotechnical Laboratory Test Result

LS 702/D 422

UNIFIED SOIL CLASSIFICATION SYSTEM

CLAY AND SILT	SAND			GRAVEL	
	Fine	Medium	Coarse	Fine	Coarse



ORBITENGINEERING
Consulting Engineers

GRAIN SIZE DISTRIBUTION

Figure No.:	B1
PROJECT No. :	OE231465EG
DATE :	April 18, 2023

APPENDIX D

Phase 1 Environmental Site Assessment

Phase I Environmental Site Assessment

37 Norton Avenue, Toronto, Ontario

City of Toronto

18 January 2023

→ The Power of Commitment

Executive summary

GHD Limited (GHD) was retained by the City of Toronto (the City) to conduct a Phase I Environmental Site Assessment (ESA) of the building and property located at 37 Norton Avenue, North York, Ontario (Property or Site). The Site is currently vacant, was most recently in use for residential purposes, and is occupied by a two-storey building and a separate garage. GHD understands that the City is acquiring the Site with the intention of expanding the John MacKenzie Parkette, located adjacent to the west of the Site. Possession of the Property is anticipated by late 2022.

The Phase I ESA was conducted in general accordance with the document entitled, "CSA Standard Z768-01, Phase I Environmental Site Assessment" for conducting environmental assessments. The Phase I ESA included a review of Site history, a Site reconnaissance, document review, interviews with persons knowledgeable of historical and current Site operations, and inquiries with regulatory agencies.

The purpose of the Phase I ESA was to identify, through a non-intrusive investigation, the existence of any significant actual or potential areas of environmental impairment. The Phase I ESA inspection was conducted by GHD on November 9, 2022. GHD understands that a Record of Site Condition is not required to support the intended future use of the Site by the City.

The Property is approximately 850 square metres in size and is occupied by a two-storey building and a separate garage. The building is currently vacant, and was most recently in use for residential purposes. The Site is located in the central portion of North York, Ontario in a mixed commercial/residential area, and is located on the south side of Norton Avenue, to the east of Doris Avenue; and to the west side of Kenneth Avenue. The Site surfaces are comprised of asphalt, concrete, and grass.

A limiting condition encountered during the completion of this Phase I ESA was that, since the Site was vacant, no persons knowledgeable of the Site were available for interview. No other limiting conditions were encountered during completion of this Phase I ESA.

Based on GHD’s evaluation of the information gathered as part of this Phase I ESA, including the Site inspection, documents reviewed, the review of Site history, and pending receipt and review of information from the MECP, no areas of actual or potential environmental impairment were identified to be associated with the Site.

Contents

Figure index

Appendices

1. Introduction

GHD Limited (GHD) was retained by the City of Toronto (the City) to conduct a Phase I Environmental Site Assessment (ESA) of 37 Norton Avenue in North York, Ontario (Property or Site). A Site location map is provided on **Figure 1** and a Site plan is shown on **Figure 2**.

GHD understands that the City is acquiring the Site with the intention of expanding the John MacKenzie Parkette, located adjacent to the west of the Site. Possession of the Property is anticipated by late 2022. The Phase I ESA inspection was conducted by GHD on November 9, 2022. GHD understands that a Record of Site Condition is not required to support the intended future use of the Site by the City.

The purpose of the Phase I ESA was to identify, through a non-intrusive investigation, the existence of any significant actual or potential areas of environmental impairment. The Phase I ESA inspection was conducted by GHD on November 9, 2022. GHD understands that a Record of Site Condition is not required to support the intended future use of the Site by the City.

The Property is approximately 850 square metres in size and is occupied by a two-storey building and a separate garage. The building is currently vacant, and was most recently in use for residential purposes. The Site is located in the central portion of North York, Ontario in a mixed commercial/residential area, and is located on the south side of Norton Avenue, to the east of Doris Avenue; and to the west side of Kenneth Avenue. The Site surfaces are comprised of asphalt, concrete, and grass.

The Phase I ESA was completed by Mr. David Blair, Ms. Chanel McMahon and Mr. David Hutchison of GHD and reviewed by Mr. Warren Croft of GHD. Curricula Vitae detailing the assessors' qualifications are included in **Appendix A**.

This Phase I ESA was conducted in general accordance with the document entitled, "CSA Standard Z76801, Phase I Environmental Site Assessment" for conducting environmental assessments. The Phase I ESA included a review of Site history, a Site inspection, document review, interviews with persons knowledgeable of historical and current Site operations, and inquiries with regulatory agencies. The following tasks were conducted as part of this Phase I ESA:

- Interviews with persons knowledgeable of the Site (and Site operations)
- Review of electronic environmental and regulatory databases for the Site and neighbouring properties
- Review of available historical records including aerial photographs, fire insurance plans and city directories of the Site and surrounding area; and available environmental, geological and geotechnical reports pertaining to the Site
- Review of past and current Property usage and neighbouring property occupancy
- Reconnaissance of the Site including an inspection of lands, buildings, equipment, and utility services as well as a review of Site operations and an examination of company records
- Observations of conditions that represent actual or potential Site contamination
- Observations of general conditions of adjacent properties as viewed from the Site and public rights-of-way
- Review of chemical use and storage and spill/release incidents
- Review of aboveground and underground storage tank records
- Review of waste handling, accumulation, storage, and disposal practices
- Review of air emissions and wastewater discharges
- Review of equipment that potentially contains polychlorinated biphenyls
- Observations of potential asbestos containing materials
- Observations of potential lead and lead-containing materials
- Observations of potential ozone-depleting materials
- Observations of potential Urea Formaldehyde Foam Insulation
- Inquiries with regulatory agencies

In conducting the Phase I ESA, GHD relied on information received from all parties, including information provided by the City, as being accurate unless contradicted by written documentation or field observations. A limiting condition encountered during the completion of this Phase I ESA was that, since the Site was vacant, no persons knowledgeable of the Site were available for interview.

This Phase I ESA report has been prepared for the use of the City of Toronto as the exclusive user and may not be relied upon by others without the written consent of the City of Toronto and GHD.

2. Environmental Databases Search and Historical Records Review

2.1 Environmental Databases Search

GHD contracted EcoLog Environmental Risk Information Services Ltd. (ERIS) to conduct a search of available federal, provincial, and private environmental databases. Based on the location of the Site, the database search was completed to assist in the identification of environmental conditions at the Site and on neighbouring properties. A summary of the pertinent findings from the environmental database search report is provided below. The number of records identified for the Site and for properties within a 0.25-kilometre radius of the Site are identified in the following table. The complete database search report, which also identifies limitations associated with this information, is included in **Appendix B**.

Database	Number of Records	
	Site	Distance from the Site
		0-0.25 km
FEDERAL DATABASES		
Environmental Effects Monitoring (**EEM**)	None	0
Environmental Issues Inventory System (**EIIS**)	None	0
Federal Convictions (**FCON**)	None	0
Federal Contaminated Sites (**FCS**)	None	0
Fisheries & Oceans Fuel Tanks (**FOFT**)	None	0
Indian & Northern Affairs Fuel Tanks (**IAFT**)	None	0
National Analysis of Trends in Emergencies System (**NATE**)	None	0
National Defence & Canadian Forces Fuel Tanks (**NDFT**)	None	0
National Defence & Canadian Forces Spills (**NDSP**)	None	0
National Defence & Canadian Forces Waste Disposal Sites (**NDWD**)	None	0
National Energy Board Pipeline Incidents **(NEBI)**	None	0
National Environmental Emergencies System (**NEES**)	None	0
National PCB Inventory (**NPCB**)	None	0
National Pollutant Release Inventory **(NPRI)**	None	0
Parks Canada Fuel Storage Tanks (**PCFT**)	None	0
Transport Canada Fuel Storage Tanks (**TCFT**)	None	0

Database	Number of Records	
	Site	Distance from the Site
		0-0.25 km
PROVINCIAL DATABASES		
Aggregate Inventory (**AAGR**)	None	0
Aggregate Inventory (**AGR**)	None	0
Abandoned Mines Information System (**AMIS**)	None	0
Borehole (**BORE**)	None	13
No records were identified in the BORE database to be associated with the Site. Thirteen records were identified in the BORE database to be associated with properties located within 250 m of the Site. The records were related to monitoring and test holes only.		
Certificates of Approval (**CA**)	None	11
No records were identified in the CA database to be associated with the Site. Eleven records were identified in the CA database to be associated with properties located within 250 m of the Site. The approvals were related to municipal water, air and municipal sewage. No other pertinent information was provided in the records.		
Coal Gasification Plants **(COAL)**	None	0
Compliance and Convictions **(CONV)**	None	0
Certificates of Property Use **(CPU)**	None	1
No records were identified in the CPU database to be associated with the Site. One record was identified with a property located within 250 m of the Site. The record was associated with a property located at 5200 Yonge Street, approximately 200 metres to the west of the Site. No other pertinent information was provided in the record.		
Dry Cleaning Facilities **(CDRY)**	None	0
Drill Holes **(DRL)**	None	0
Delisted Fuel Tanks **(DTNK)**	None	0
Environmental Activity and Sector Report **(EASR)**	None	1
No records were identified in the EASR database to be associated with the Site. One record was identified with a property located within 250 m of the Site. The record was associated with water taking/construction dewatering. No other pertinent information was provided in the records.		
Environmental Registry **(EBR)**	None	1
No records were identified in the EBR database to be associated with the Site. One record was identified to be associated with a property located within 250 m of the Site. The record was associated with Yonge/Norton (Canada IV) Holdings Limited, located at 5255 Yonge Street for approval to discharge into air. No other pertinent information was provided in the records.		
Environmental Compliance Approval (**ECA**)	None	5
No records were identified in the ECA database to be associated with the Site. Five records were identified in the ECA database to be associated with properties located within 250 m of the Site. The records were related to municipal and private sewage works, municipal and private water works and air.		
List of TSSA Expired Facilities **(EXP)**	None	0
Ontario Regulation 347 Waste Generators Summary **(GEN)**	None	33
No records were identified in the GEN database to be associated with the Site.		

Database	Number of Records	
	Site	Distance from the Site
		0-0.25 km
A total of 33 records were identified in the GEN database to be associated with properties located within 250 m of the Site. GEN records strictly identify generators of subject/hazardous wastes and not spills or releases related to these wastes. The records were associated with surrounding properties located cross-gradient or down-gradient of the Site and, due to the distance from the Site and the inferred groundwater flow direction, were not identified as having the potential to negatively impact the Site. Details of the records can be found in **Appendix E**.		
TSSA Historic Incidents **(HINC)**	None	3
No records were identified in the HINC database to be associated with the Site. Three records were identified in the HINC database to be associated with properties located within 250 m of the Site. The records were related to natural gas releases. No other pertinent information was provided in the records.		
TSSA Incidents (**INC**)	None	1
No records were identified in the INC database to be associated with the Site. One record was identified in the INC database to be associated with a property located within 250 m of the Site. The record was related to a natural gas release. No other pertinent information was provided in the records.		
Landfill Inventory Management Ontario (**LIMO**)	None	0
Mineral Occurrences (**MNR**)	None	0
Non-Compliance Reports (**NCPL**)	None	0
Inventory of PCB Storage Sites (**OPCB**)	None	0
Ontario Oil and Gas Wells (**OOGW**)	None	0
Orders (**ORD**)	None	0
Pesticide Register **(PES)**	None	0
TSSA Pipeline Incidents (**PINC**)	None	2
No records were identified in the PINC database to be associated with the Site. Two records were identified to be associated with a property located within 250 m of the Site. The records were related to a damaged pipelines.		
Private and Retail Fuel Storage Tanks **(PRT)**	None	0
Permit to Take Water (**PTTW**)	None	0
Ontario Regulation 347 Waste Receivers Summary (**REC**)	None	0
Record of Site Condition **(RSC)**	None	7
No records were identified in the RSC database to be associated with the Site. Seven records were identified in the RSC database to be associated with properties located within 250 m of the Site. No other pertinent information was provided in the records. One of these records is associated with the Certificate of Property Use listing (described earlier) for a property located at 5200 Yonge Street, approximately 200 metres to the west of the Site.		
Ontario Spills **(SPL)**	None	6
No records were identified in the SPL database to be associated with the Site. A total of 6 records were identified in the SPL database to be associated with properties located within 250 m of the Site. The records pertained to: - a release of 30 litres of diesel fuel to roadway in 1996 at the intersection of Yonge Street and Norton Avenue, approximately 175 metres west of the Site; - 5 litres of motor oil was released to the roadway in 2013 at the intersection of Yonge Street and Ellerslie Avenue, approximately 180 metres west of the Site;		

Database	Number of Records	
	Site	Distance from the Site
		0-0.25 km
- 20 litres of cooking oil was released to the ground/catch basin in 2010 at 5309 Yonge Street, approximately 175 metres northwest of the Site; a release of natural gas; -and an unknown quantity of sediment laden stormwater to a catch basin in 2017 at 5250 Yonge Street, approximately 205 metres southwest of the Site. - two spills related to the release of natural gas to the atmosphere. Due to the nature of the release (natural gas) and/or the linear distance from the Site, the spills were not identified as having the potential to contribute to an APEC at the Site.		
Wastewater Discharger Registration Database (**SRDS**)	None	0
Variances for Abandonment of Underground Storage Tanks (**VAR**)	None	0
Waste Disposal Sites – MOE CA Inventory (**WDS**)	None	0
Waste Disposal Sites – MOE 1991 Historical Approval Inventory (**WDSH)**	None	0
Water Well Information System **(WWIS)**	None	19
No records were identified in the WWIS database to be associated with the Site. A total of 19 records were identified in the WWIS database to be associated with properties located within 250 m of the Site.		
PRIVATE DATABASES		
Anderson's Waste Disposal Sites (**ANDR**)	None	0
Automobile Wrecking & Supplies (**AUWR**)	None	0
Commercial Fuel Oil Tanks (**CFOT**)	None	0
Chemical Register (**CHEM**)	None	0
ERIS Historical Searches **(EHS)**	1	31
1 record was identified in the EHS database to be associated with the Site. 31 records were identified in the EHS database to be associated with properties located within 250 m of the Site.		
Fuel Storage Tank **(FST)**	None	0
Fuel Storage Tank – Historic **(FSTH)**	None	0
Canadian Mine Locations (**MINE**)	None	0
Oil and Gas Wells (**OGW**)	None	0
Canadian Pulp and Paper (**PAP**)	None	0
Retail Fuel Storage Tanks **(RST)**	None	0
Scott's Manufacturing Directory (**SCT**)	None	10
No records were identified in the SCT database to be associated with the Site. A total of 10 records were identified in the SCT database to be associated with properties located within 250 m of the Site. The records were associated with publishing, printing and commercial distribution services.		
Anderson's Storage Tanks (**TANK**)	None	0

No known or likely sources of contamination to the Site were identified in the environmental database review due to the distance from the Site and/or the minimal nature of potential impact to the Site associated with incidents identified in the environmental database review.

2.2 Historical Records Review

Historical land use of the Site was investigated by GHD through a review of historical city directories, available fire insurance plans, aerial photographs of the Site and surrounding area, and previous environmental reports.

2.2.1 Historical City Directories

Historical city directories generally document the occupants of municipal addresses on a yearly basis. GHD contracted EcoLog Environmental Risk Information Services Ltd. (ERIS) to conduct a search of the municipal City directories 37 Norton Avenue; 238, 256 and 260 Doris Avenue; as well as 5221, 5223, 5229, 5231, 5233 and 5255 Yonge Street from 1920 to 2001.

Based on GHD's review of the historical city directories, the Site address was not listed in the city directories in 1920, 1925; and between 1991 and 2001. The Site was listed as residential from 1935 to 1986. Furthermore, the city directories did not identify any occupants of the surrounding properties that were identified to have the potential to impact the Site.

A copy of the historical city directory search findings is included as **Appendix C**.

2.2.2 Fire Insurance Plans

Fire insurance plans and underwriter reports assist in the identification of historical land use and commonly indicate the existence and location of aboveground and underground storage tanks, structures, improvements, and Site operations. GHD contracted OPTA Information Intelligence (OPTA) to search for available historical fire insurance plans, inspection reports, Site-specific plans, and underwriter reports for the Site. Opta identified the following information pertaining to the Site:

- Fire Insurance Plans for the year 1964

1964 FIP: Review of the 1964 FIP indicates that Northtown Plaza was located approximately 215 metres northwest of the Site; and occupied a transformer on the western portion of the property. Various commercial properties were located along Yonge Street, including a dry cleaning operation located approximately 210 metres northwest of the Site. A cleaning and pressing operation; as well as an auto repair shop (Speedy Muffler King) were located along the western portion of Yonge Street, south of Ellerslie Avenue; approximately 210 metres southwest of the Site. An electrical substation and an auto service garage operating one underground storage tank were located on the northeastern corner of the Norton Avenue and Yonge Street intersection, approximately 155 metres and 165 metres northwest of the Site. A corporation yard operating one underground storage tank was located between Norton Avenue and Parkview Avenue, approximately 110 metres west of the Site. North York Township Garage operated with one underground storage tank; and the North York Hydro Electric Commission operated on the southeastern corner of the Empress Avenue and Yonge Street, approximately 230 metres and 245 metres southwest of the Site.

A copy of Opta's response is provided in **Appendix D**.

2.2.3 Aerial Photographs

Aerial photographs were reviewed to document the development of the Site and properties near the Site, and to identify the existence of actual or potential contamination of the Site. Aerial photographs of the Site and surrounding area were obtained by GHD for the years 1939, 1946, 1952, 1960, 1970, 1981, 1995 and 2019.

1939 Aerial Photograph: Review of the 1939 aerial photograph indicates that the Site had been developed for residential purposes. Additional residential properties were located adjacent to the south and west of the Site. Norton Avenue was visible adjacent to the north; and McKee Avenue had been developed further north of the Site. Kenneth Avenue, Parkview Avenue and Yonge Street were developed to the east, south and west of the Site, respectively.

1946 Aerial Photograph: A review of the 1946 aerial photograph indicates that there had been no changes in land use on the Site or the surrounding properties since 1939.

1952 Aerial Photograph: Review of the 1952 aerial photograph indicates that there had been no significant changes in land use on the Site since 1946. Additional residential properties had been developed adjacent to the north and east of the Site along Norton Avenue. Commercial buildings had been developed further west of the Site; along the eastern portion of Yonge Street.

1960 Aerial Photograph: Review of the 1960 aerial photograph indicates that there had been no significant changes in land use on the Site since 1952. Additional residential dwellings had been developed to the north of the Site; and condominium development had commenced north of Church Avenue. Additional commercial buildings had been developed along the western portion of Yonge Street.

1981 Aerial Photograph: Review of the 1981 aerial photograph indicates that there had been no significant changes in land use on the Site since 1952. Doris Avenue had been constructed adjacent to the west of the Site. Additional residential dwellings had been developed to the north of the Site; and condominium development had commenced north of Church Avenue.

1995 Aerial Photograph: Review of the 1995 aerial photograph indicates that there had been no significant changes in land use on the Site since 1952. Condominium buildings had been developed to the southwest of the Site, on the western portion of Doris Avenue. John MacKenzie Parkette was visible adjacent to the west of the Site.

2019 Aerial Photograph: Review of the 2019 aerial photograph indicates that there had been no significant changes in land use on the Site since 1952. Additional condominium buildings had been developed on the western side of Doris Avenue; between McKee Avenue and Church Avenue. The remainder of the surrounding lands had not changed significantly since 1995.

Copies of reviewed aerial photographs of the Site are included in **Appendix E**.

2.2.4 Previous Environmental Investigations

No previous environmental reports were made available for GHD review.

3. Site inspection

On November 9, 2022, GHD completed a Site inspection. Weather conditions during the Site inspection were sunny, with an ambient air temperature of approximately 7°C.

An inspection of the Property was undertaken to confirm interior and exterior Site conditions. GHD was unaccompanied at the time of the inspection. Neighbouring properties were observed from the Site and public lands. Photographs of the Site are included in **Appendix F.**

3.1 Site Overview

3.1.1 Building and Property

The Property is approximately 850 square metres in size and is occupied by a two-storey building and a separate garage. The building is currently vacant, and was most recently in use for residential purposes. The Site is located in the central portion of North York, Ontario in a mixed commercial/residential area, and is located on the south side of Norton Avenue, to the east of Doris Avenue; and to the west side of Kenneth Avenue. The Site surfaces are comprised of asphalt, concrete, and grass

Based on observations made during the Site inspection, the on-Site building was a vacant residential dwelling constructed with a stone foundation, brick exterior walls, drywall and plaster interior walls; a mix of wood, tile and laminate flooring and a sloped wood roof finished with asphalt shingles. The building is heated by a natural gas fired boiler. The building contains a basement; and additions to the first and second floors were observed south of the

original building. Additionally, evidence of a fire on the first and second floors of the building were noted during the Site inspection, mainly in the southern portion of the building.

A separate wood framed garage with an asphalt shingled roof and a shed were located southwest of the building.

3.1.2 Current Site Operations

The building is currently vacant, and was most recently in use for residential purposes. The building was vacant at the time of the Site inspection.

3.1.3 Historical Site Operations

Based on review of historical records, the Site was listed as a residential building from 1935 to 1986.

3.1.4 Utility Services

The Site is serviced with electricity through an overhead electrical service from Norton Avenue. Potable water and sanitary sewer services to the Site could not be confirmed, however the area is serviced with both municipal water and sanitary sewers. Stormwater runoff generated at the Site either infiltrates the ground surface or is directed by overland flow towards storm sewer catch basins along Norton Avenue.

The building was heated using a natural gas-fired boiler, located in the basement of the building.

3.2 Environmental Setting

The Site is located in an area of Toronto that is utilized for mixed residential and commercial land use. The elevation of the Site is approximately 182 metres above mean sea level (mASL).

The properties adjacent to the Site were visually inspected, without accessing the properties, for evidence of existing or potential environmental concerns related to the Phase I ESA. The following buildings or features were located on the properties surrounding the Site.

North: The Site is bounded to the north by Norton Avenue and further north by residential properties, followed by McKee Avenue and McKee Public School.

East: The Site is bounded to the east by residential properties.

South: The Site is bounded to the south by parkland (John McKenzie Parkette) and further south by Parkview Avenue and residential properties.

West: The Site is bounded to the west by parkland (John McKenzie Parkette) and further west by Doris Avenue and commercial properties.

GHD did not observe any visual evidence of environmental impacts related to adjacent land use.

3.3 Underground Storage Tanks (USTs)

At the time of the inspection, no USTs were identified at the Site. No evidence of USTs (e.g., vent pipes, fill ports, etc.) was observed by GHD during the Site reconnaissance. This is consistent with the findings of the environmental databases review and correspondence with the Technical Standards and Safety Association (TSSA), as discussed in Section 3.18.

3.4 Aboveground Storage Tanks (ASTs)

An approximately 900L above-ground storage tank (AST) was observed in a closet between the basement of the original house and the crawlspace under the addition. It appears to be connected to the exterior filling pipe at the west side of the house (box indicates Fuel Oil & Diesel Delivery Petro-Partners Home Experts). The gauge on the AST indicated that it is empty, but it may contain some residual fuel from when the house was heated with oil. The AST appeared to be in good condition, with no evidence of spills or releases. The AST was not connected to the furnace, which is a natural gas-fired boiler.

No information was available regarding the operational history of the AST, or the potential for previous ASTs to have operated at the Site.

3.5 Chemical and Raw Material Use and Storage

At the time of inspection, GHD did not observe any use or storage of chemicals or raw materials inside or outside the building; as well as any evidence of spills or releases at the Site. This is consistent with the findings of the environmental databases search.

3.6 Floor Drains, Pits, and Sumps

At the time of inspection, there were no floor drains, pits, or sumps observed to be present at the Site.

3.7 Wastewater/Sewers

At the time of inspection, no wastewater is generated or stored at the Site.

3.8 Stormwater/Surface Water

Stormwater runoff generated at the Site either infiltrates the ground surface or is directed by overland flow towards Norton Avenue. No evidence of impact associated with potential stormwater run on to the Site was observed by GHD at the time of the Site inspection.

3.9 Solid Waste/Recyclable Materials

At the time of inspection, no evidence of on-Site disposal of solid waste was observed by GHD. This is consistent with the findings of the aerial photograph review conducted by GHD.

3.10 Subject Waste/Hazardous Waste

At the time of inspection, no evidence of on-Site subject or hazardous waste disposal was observed by GHD. No evidence of on-Site disposal was identified in historical aerial photographs reviewed as part of this Phase I ESA.

3.11 Spills/Releases

At the time of the Site inspection, GHD did not observe any evidence of chemical spills or releases at the Site. This is consistent with the findings of the environmental databases review.

3.12 Asbestos-Containing Materials (ACM)

A designated substance and hazardous material (DSHM) survey was completed by GHD as part of the property acquisition activities and has been provided under separate cover.

3.13 Polychlorinated Biphenyls (PCBs)

No evidence of PCB waste generation or former PCB waste storage was observed at the time of the Site inspection. This is consistent with the findings of the environmental databases review.

3.14 Air Emissions

GHD did not identify any sources of air emissions during the Site inspection. No strong, pungent or noxious odours or elevated noise levels associated with the Site or neighbouring activities were observed by GHD during the Site inspection. No evidence of particulate accumulations associated with fugitive emissions from the Site or neighbouring operations was observed by GHD during the Site inspection.

3.15 Lead

The amount of lead in interior paint has been regulated since 1976 through Health Canada's Hazardous Products Act. No potential lead-based paint surfaces were observed by GHD at the time of the Site inspection. As previously noted, a DSHM survey was completed by GHD as part of the property acquisition activities and has been provided under separate cover.

3.16 Ozone-Depleting Materials

No equipment containing ozone-depleting materials was identified by GHD at the time of the Site inspection.

3.17 Urea Foam Formaldehyde Insulation (UFFI)

No evidence of UFFI was identified by GHD during the Site inspection.

3.18 Agency Records

An MECP record search for the Site was requested on December 12, 2022 under the MECP's Freedom of Information and Protection of Privacy Act. To date, a response has not been received from MECP. GHD will forward any relevant information received from MECP under separate cover should the response identify any substantive issues.

The Technical Standards and Safety Authority (TSSA) was contacted by GHD and asked to provide information concerning licensed (retail fuel outlets) or registered (private fuel outlets) underground storage tanks. The TSSA results indicate that there are no registered fuel tanks associated with the Site. A copy of the TSSA correspondences is included in **Appendix G**.

4. Conclusions

Based on GHD's evaluation of the information gathered as part of this Phase I ESA, including the Site inspection, documents reviewed, the review of Site history, and pending receipt and review of information from the MECP, no areas of actual or potential environmental impairment were identified to be associated with the Site.

All of Which is Respectfully Submitted,

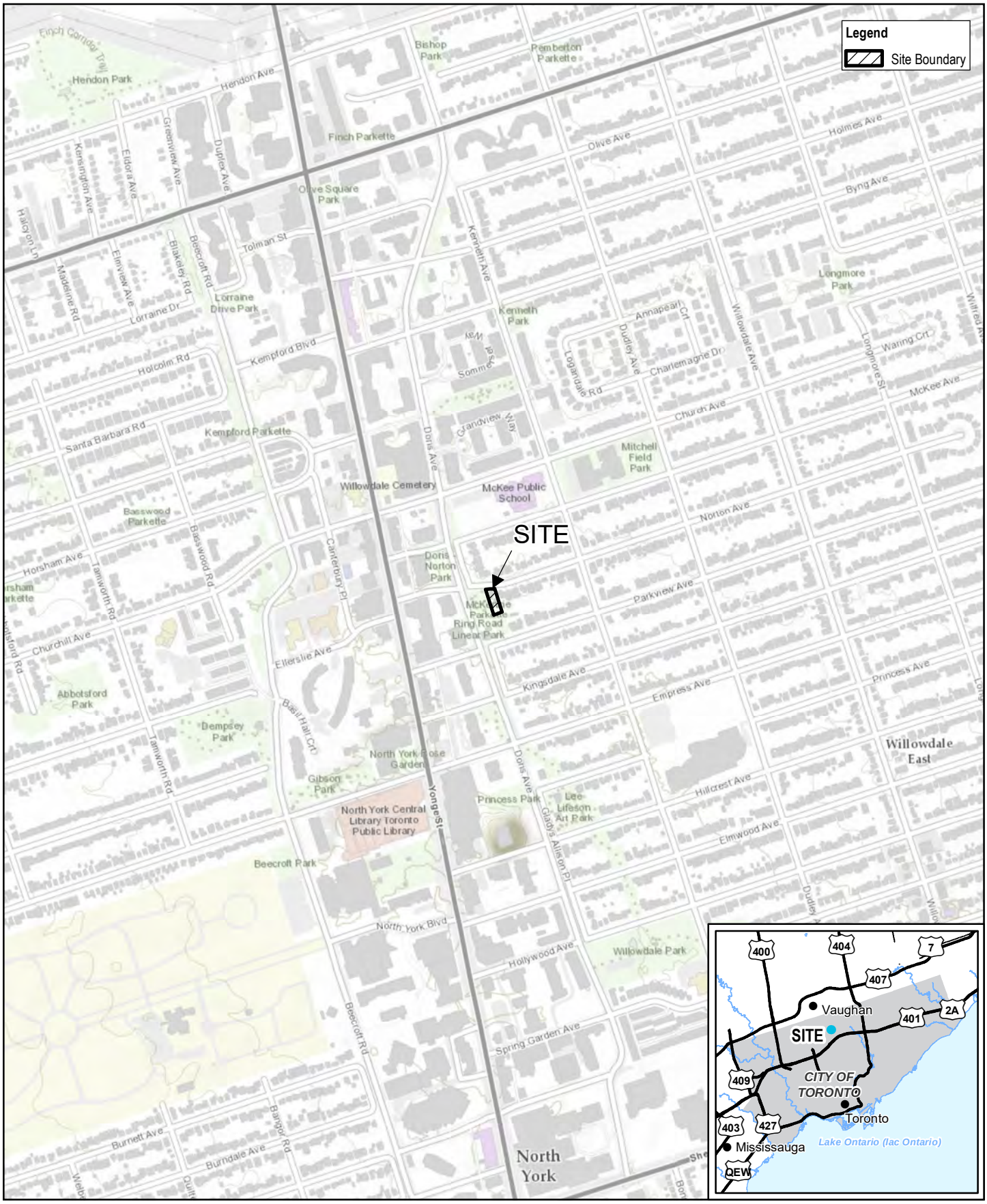
GHD

Chanel McMahon, B.Sc.

David Hutchinson, P. Eng., QP_{ESA}

Warren Croft, P. Eng., QP_{ESA}

Figures



Paper Size ANSI A

0 60 120 180 240

Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Dec 20, 2022**

SITE LOCAITON MAP

FIGURE 1

O:\GIS\PROJECTS\12594000s\12594791\Layouts\202211_RPT001\12594791_202211_RPT001_GIS009.mxd
Print date: 20 Dec 2022 - 12:02

Data source: ESRI Topographic Basemapping, Accessed 2022

0 2.5 5 7.5m

1:250

Coordinate System:
UTM83-17

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GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

SITE PLAN

Project No. **12594791**
Date **December 2022**

FIGURE 2

Filename: \\ghdnet\ghd\CA\Mississauga\Projects\662\12594791\Digital_Design\ACAD\Figures\RPT-PhaseIESA\12594791-GHD-00-00-RPT-EN-D101_WA-PhaseIESA.dwg
Plot Date: 20 December 2022 9:59 AM

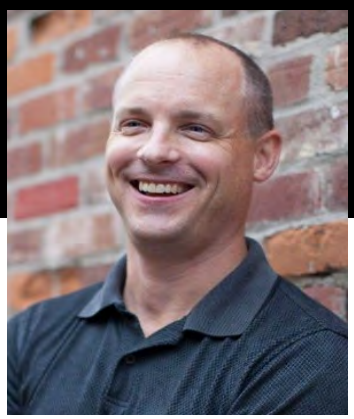
Appendices

Appendix A

Project Personnel Curricula Vitae

David J. Hutchinson P. ENG.

Senior Engineer



Location

Mississauga, Ontario, Canada

Experience

24 years

Qualifications/Accreditations

– Bachelor of Applied Science, Civil Engineering

Memberships

– Registered Professional Engineer, Ontario,
– Qualified Person for Environmental Site Assessments (ESAs) in accordance with Ontario Regulation (O. Reg.) 153/04 (QP_{ESA})

Relevant experience summary

Dave has 24 years of experience in environmental consulting including conducting Phase One ESAs, development and implementation of Phase Two ESAs, delineation of soil and groundwater contamination, removal and closure of underground storage tanks, preparation of remedial action plans, remediation program implementation, contract administration, Certificate of Property Use (CPU) development and reporting, and Record of Site Condition (RSC) filings. Dave was under secondment to Infrastructure Ontario where he supervised the environmental approvals for the West Don Lands in support of the Pan Am Games Athlete's Village Project. He is a primary peer reviewer for GHD's current peer review contracts with the City of Toronto. Dave is currently working on the Port Lands Flood Protection and Enabling Infrastructure Project, which involves routing the Don River through the Port Lands. Dave is very familiar with the requirements of Ontario Records of Site Condition regulation (O. Reg. 153/04 and related amendments), appropriate investigative methods and sample handling protocols

Brownfield Development

Project Manager/Technical Lead | Waterfront Toronto | Port Lands, Toronto, Ontario | 2015 - present

Dave manages and acts as technical lead for environmental, geotechnical and hydrogeological investigations in the Port Lands in Toronto, ON. The work is being completed to support the Don Mouth Naturalization Project, including a Community Based Risk Assessment approach for the new route for the Don River. The project involves conducting very large, multi-faceted investigations in complex site conditions that are completed in tight timelines. The project also involves communication with multiple stakeholders. To date, GHD has completed well over 1,500 investigative locations at the locations of the proposed project enabling infrastructure (bridges, roads and river valley) in support of the design phase for the project. The investigations include subsurface drilling (overburden and bedrock), marine drilling, soil and groundwater sampling, monitoring well installation, soil vapour probe installation and sampling, laser induced fluorescence investigation (both UVOST® and TarGOST®), NAPL coring, seismic cone penetration testing and geophysical investigations. These investigations are being conducted under challenging subsurface conditions due to flowing sands and compressible soils. These challenges are overcome by the implementation of sound investigative techniques, which include measures to counteract the flowing sand pressure. The project also involves communication with multiple stakeholders.

Project Manager/Technical Lead | Infrastructure Ontario | Former Guelph Correctional Centre, Guelph, Ontario | 2015 - present

Dave manages and is the QP_{ESA} for environmental projects at the Former Guelph Correctional Centre in Guelph, ON. The projects included a soil remediation program, groundwater remediation program, and an ongoing groundwater monitoring program. Dave assisted the client with the preparation of the client's remedial tender and bidding process and is currently providing remedial oversight and contract administration.

Project Manager/Technical Lead |
Infrastructure Ontario | West Don Lands, Toronto, Ontario | 2014 - 2018

Dave manages and is the QPESA for CPU compliance for the West Don Lands in Toronto, ON for areas being developed by Infrastructure Ontario. This involved the completion of a large-scale groundwater monitoring well installation and monitoring program and barrier inspections for newly constructed areas to meet the requirements of multiple CPUs. The project also involves consultation with multiple stakeholders including current and future property owners.

Secondment |
Infrastructure Ontario | West Don Lands, Toronto, Ontario | 2010 - 2017

Dave was seconded to Infrastructure Ontario where he supervised the environmental approvals for the West Don Lands in support of the Pan Am Games Athlete's Village Project. This involved oversight of very complex and large-scale environmental assessment work at the 32-hectare site to meet the requirements of O. Reg. 153/04. This included consultation with multiple external parties including the Ministry of the Environment, Conservation and Parks (MECP), the City of Toronto and Waterfront Toronto. Dave supervised the consultant as they complete the following tasks at a significantly accelerated schedule: four large-scale Phase One ESAs; eight extensive Phase Two ESAs; summarization of site characterization components for eight risk assessments; development of multiple CPUs; development and implementation of multiple remedial programs; and, development of a strategy for the filing of seventeen RSCs based on environmental characteristics, future property boundaries, future property use and current and future property ownership that provided continuity during the overall environmental assessment process and satisfied the requirements of the amended regulation. This project was awarded a Canadian Urban Institute Brownie Award in 2011, 2012, and 2013. Dave continues to provide guidance to Infrastructure Ontario and other stakeholders regarding implementation of risk management measures during construction activities.

Project Manager/Technical Lead |
Sheppard and Faywood Developments Inc. | Residential Development, Norh York, Ontario | 2017 - 2019

Dave managed and was the QPESA for a Phase One and Phase Two ESA and RSC filing for a residential development in North York, ON. The project involved conveyances to the City of Toronto and communication with multiple project stakeholders.

Project Manager/Technical Lead |
Brownfield Redevelopment | Preston Meadows, Cambridge, Ontario | 2008 - 2010

Dave managed and is the QPESA for a Phase One ESA, Phase Two ESA, soil remediation and RSC filing for a brownfield development in Cambridge, ON. The project involved the implementation of a remedial action plan at a Brownfield site for the sustainable management of over 60,000 metric tonnes of impacted material under the conditions of a previous RSC. A new RSC was filed following the completion of the remedial action plan that facilitated the development of the majority of the site for residential purposes. The project was nominated for two Canadian Urban Institute Brownie Awards.

Project Manager/Technical Lead |
Reid's Heritage Homes | Parkland Development, Cambridge, Ontario | 2008 - 2010

Dave managed and is the QPESA for a Phase One ESA, Phase Two ESA, risk assessment, CPU and RSC submission for a former industrial property that was developed for parkland purposes in Cambridge, ON. Dave completed the Phase One and Phase Two ESAs and provided oversight of the resulting remedial program, risk assessment and RSC filing for the property.

Project Manager/Technical Lead |
Del Ridge (Main Street) Inc. |
Residential Development, Milton, Ontario | 2009 - 2010

Dave managed and is the QPESA for a Phase II ESA, soil remediation and RSC submission for a former industrial property that was developed for residential purposes in Milton, ON. Dave completed supplemental investigations to address the informational gaps that were identified in previous reports. Following the completion of the supplemental investigations, Dave developed a remedial action plan and remedial cost estimate that assisted in the real estate transaction agreement. Dave then implemented the successful remedial action plan to residential standards and filed a RSC for the property.

Project Manager/Technical Lead |
Cambridge Taylor Holdings Inc. |
Residential Development, Cambridge, Ontario | 2006 - 2007

Dave managed and was the QPESA for a Phase I ESA, Phase II ESA, soil remediation and RSC filing for a former agricultural property that was developed for residential purposes in Cambridge, ON. Following the completion of the Phase I and Phase II ESAs, Dave developed a remedial action plan and remedial cost estimate for soils that had been illegally dumped at the property. Dave then implemented the successful

remedial action plan to residential standards and filed a RSC for the property.

Municipal Experience

Peer Reviewer |
City of Toronto Harmonized Peer Review Process | Multiple Sites, Toronto, Ontario | 2013 - present

Dave managed and is the QPESA for multiple projects for the City of Toronto Harmonized Peer Review Process for lands to be conveyed to the City of Toronto. This work involves the review of environmental deliverables such as Phase One and Phase Two ESAs, remedial programs, risk assessments, CPUs, and RSC submissions. On behalf of the City of Toronto, Dave's role was to review the environmental deliverables with respect to compliance with O. Reg. 153/04 and City of Toronto policy for lands to be conveyed to the City of Toronto. This involves working directly with the City of Toronto Soil and Groundwater Unit, City of Toronto Case Managers, applicants, and their QPs.

Project Manager/Technical Lead |
Toronto Port Lands Company | Multiple Sites, Toronto, Ontario | 2012 - 2014

Dave managed and is the QPESA for multiple ongoing projects for the Toronto Port Lands Company. This currently includes the completion of Phase One and Phase Two ESAs for multiple properties. Upcoming components of these projects may involve remedial oversight and/or risk assessment followed by the filing of a RSC. This work will support the future development of the properties in the Port Lands.

Project Manager/Technical Lead |
Waterfront Toronto | Multiple Sites, Toronto, Ontario | 2006 - 2010

Dave managed the provision of environmental consulting services for Waterfront Toronto. This included the completion of Phase I and Phase II ESAs and geophysical surveys for multiple properties. This work supported the acquisition of several properties in Waterfront Toronto's East Bayfront District.

Project Manager/Technical Lead |
Peel District School Board | Multiple Sites | Peel Region | 2006 - 2008

Dave managed the provision of environmental consulting services for the Peel District School Board. This included the completion of Phase II ESAs, geophysical surveys, and project management services as part of an underground storage tank (UST) identification and management program for multiple properties.

Project Manager/Technical Lead |
Regional Municipality of Peel | Multiple Sites, Peel Region | 2006 - 2010

Dave managed the completion of a contaminated site screening study for the Regional Municipality of Peel in support of a Class Environmental Assessment on Mayfield Road in Brampton, Ontario.

Project Manager/Technical Lead |
City of Brampton | Queen Street Road Improvements | Brampton, Ontario | 2007 - 2008

Dave managed the completion of a Phase II ESA for the City of Brampton in support of road improvements along Queen Street. Following the completion of the assessments, preliminary management options for impacted material, if present, were included with the reports.

Project Manager/Technical Lead |
Town of Caledon | Town of Caledon Municipal Yard Divestment | 2010

Dave managed the completion of a Phase I ESA for the Town of Caledon in support of the divesture of a municipal yard.

Project Manager/Technical Lead |
City of Toronto | Fort York Pedestrian Bridge | Toronto, Ontario | 2010

Dave managed the completion of a Phase I ESA for the City of Toronto in support of the proposed Fort York Pedestrian Bridge.

Project Manager/Technical Lead |
City of Mississauga | Square One Drive Extension, Mississauga, Ontario | 2008

Dave managed the completion of a Phase I and Phase II ESA for the City of Mississauga for the proposed extension of Square One Drive in Mississauga, Ontario.

Environmental Site Assessment

Dave managed the design, completion, and management of over 250 Phase I ESAs, Phase II ESAs and contaminated screening studies for private and public sector clients in Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland. This work was completed to established baseline environmental conditions prior to acquisition/occupation of the property, refinancing purposes, divestiture of the property or future RSC filings. A selection of representative projects is listed below:

Project Manager |
Canadian Tire Corporate and Canadian Tire Petroleum | Multiple Locations across Canada | 1998 - 2006

Dave managed environmental consulting services for Canadian Tire Corporation and Canadian Tire Petroleum. This consisted of Phase I ESAs, Phase II ESAs and client specific environmental site inspections for over 100 properties in Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland for due diligence and/or divestiture purposes.

Senior Reviewer |
Hydro One Land Assessment and Remediation Program | Multiple Locations across Ontario | 2010 - 2012

Dave provided senior review for the completion of Phase I and Phase II ESAs throughout Ontario at real estate sites, distribution stations and transmission stations for the Hydro One Land Assessment and Remediation program.

Project Manager |
Ontario Power Generation | Multiple Locations across Ontario | 2008 - 2010

Dave managed environmental consulting services for Ontario Power Generation. This consisted of Phase I ESAs and/or Phase II ESAs for multiple properties for potential acquisition.

Project Manager/Technical Lead |
Confidential Client and Project | Thorold, Ontario | 2008

Dave managed due diligence investigations to provide environmental information in support of proposed routes for underground service utilities in Thorold, ON. Activities included organizing the proposed route into zones of potential environmental impact or significance then conducting a multi-faceted Phase II ESA of the proposed utility route.

Project Manager/Technical Lead |
Chrysler Canada | Multiple Locations | 2006 - 2007

Dave managed Phase I and Phase II ESAs for Chrysler Canada for multiple sites identified for acquisition.

Project Manager/Technical Lead |
Sithe Global | Goreway Power Plant, Brampton, Ontario | 2006 - 2008

Dave managed the completion of a Phase II ESA and subsequent remedial activities for Sithe Global in support of property acquisition at the Goreway Plant in Brampton, ON.

Project Manager/Technical Lead |
Ministry of Transportation | Highway 69 Proposal MTO Patrol Yards - Multiple Locations across Ontario | 2007 - 2008

Dave managed the completion of multiple Phase I ESAs for the Ministry of Transportation at proposed patrol yards along Highway 69.

Project Manager/Technical Lead |
Confidential Location and Client | Toronto, Ontario 2009 - 2010

Dave managed the completion of a Phase II ESA for a private developer for a property on King Street East in Toronto, ON. The work was completed to support the acquisition and future development of the property.

Project Manager/Technical Lead |
Confidential Location and Client | Toronto, Ontario 2008 - 2010

Dave managed the completion of a Phase I and Phase II ESA for a private developer for a property on Queen's Quay East in Toronto, ON. The work was completed to support the acquisition of the property, as well as the future development and RSC filing.

Environmental Site Remediation

Dave managed several projects that involved the design and implementation of remedial measures for private and public sector clients in Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland. Activities undertaken included obtaining the necessary regulatory approvals, identification of environmental issues, development of remedial action plans, management and supervision of a multi-disciplinary team, and construction oversight services. A selection of representative projects is listed below.

Project Manager/Technical Lead |
Fuel Oil Storage Tank Removal | Multiple Sites, Greater Toronto Area, Ontario | 1998 - 2006

Dave managed the removal of over 60 residential and commercial underground furnace oil storage tanks and if necessary, the subsequent management of a soil remediation program to remove petroleum impacted soil from the sites.

Project Manager/Technical Lead |
Confidential Client and Location | Furnace Oil Remediation Program, Ontario | 2004

Dave managed the design and implementation of a remediation program following a spill of furnace oil at a residential site. A deeper layer of impact was discovered and remediated during the same program. This deeper layer of petroleum impacted soil was attributed to the

long-term use of a structurally compromised underground storage tank at the site.

Project Manager/Technical Lead | Confidential Client and Location | Soil Remediation Program, Ontario | 2003

Dave managed the design and implementation of a remediation program following the removal of an UST from a residential site. The soil remediation program included significant structural underpinning of the site building to complete the required excavation underneath the residence.

Project Manager/Technical Lead | Confidential Client and Location | Oil Impacted Soil Remediation, Northern, Ontario | 1999 - 2002

Dave managed the design and implementation of a remedial program in northern Ontario for impacted soil as a result of abandoned and malfunctioning underground hydraulic hoists and an oil/water interceptor. The site was classified as a site sensitive due to its close proximity to a water body. Remediation activities consisted of the excavation and disposal of the impacted soil from the site to background site condition standards in order to achieve site closure.

Project Manager/Technical Lead | Confidential Client and Location | Petroleum Impacted Soil Remediation, Multiple Locations across Canada | 1998 - 2006

Dave managed the design and implementation of multiple remedial programs in Ontario, New Brunswick, Nova Scotia and Newfoundland for petroleum impacted soil and groundwater as a result of abandoned and malfunctioning underground hydraulic hoists, oil/water interceptors, and underground storage tanks. To complete the remedial programs, many of the sites involved structural underpinning and/or steel beam reinforcement.

Project Manager/Technical Lead | Confidential Client and Location | Soil Remediation for a Former Gasoline Station, Greater Toronto Area, Ontario | 2002 - 2004

Dave managed the development and implementation of a soil remediation program to achieve site closure at a former gasoline station. Additional activities consisted of assisting the client in tender creation, contractor procurement, and contract administration services for a remediation contract in excess of $800,000.

Project Manager/Technical Lead | Confidential Client and Location | Greater Toronto Area, Ontario | 2002 - 2004

Dave managed the development and implementation of a remedial program that involved the remediation of petroleum impacted soil and groundwater through conventional means to achieve compliance with potable site condition standards. Dave assisted the client in tender creation, contractor procurement, and contract administration services for a remediation contract in excess of $300,000.

Project Manager/Assessor | Confidential Client and Location | Remedial Strategy for an Educational Facility | Greater Toronto Area, Ontario | 2007

Dave managed a multi-facetted remedial strategy for an educational facility located in the Greater Toronto Area that had been impacted by hydrocarbon releases from a former UST. Activities included development and implementation of a remedial action plan, construction administrative services and the management of associated geotechnical and structural services. Several components of the project where completed without disrupting normal day-to-day operations at the educational facility. Additional activities consisted of assisting the client in tender creation and contractor procurement.

Career history

2012 – present	GHD, Mississauga, Ontario
2006 – 2012	Stantec Consulting Limited, Mississauga, Ontario
1998 – 2006	Winchurch Environmental Inc., Aurora, Ontario

Chanel McMahon BSc

Graduate Environmental Scientist

Location

Mississauga, Ontario, Canada

Experience

1.5 years

Qualifications/Accreditations

– –Bachelor of Science (BSc) Honours in Environmental Science, 2019

Relevant experience summary

Chanel is an environmental scientist with over one year of experience in environmental consulting. She has proven ability in coordinating and executing field activities, managing project staff, and preparing technical reports/documents in accordance with applicable regulations and standards.

Chanel is eager to continue developing professionally.

Project experience – Environmental Consulting Services

Groundwater Monitoring Program

Project Team Member |
Hydro One Networks Inc. | Ontario, Canada | Groundwater Monitoring Program |
September 2020 - Present

Chanel has assisted in project scheduling, coordination and reporting for various groundwater monitoring programs throughout Ontario.

Chanel's responsibilities included requesting public and private utility locates, coordinating drilling, groundwater monitoring/sampling, analyzing and summarizing groundwater results and completing associated reporting.

Geotechnical Investigations

Project Team Member |
Hydro One Networks Inc. | Ontario, Canada |
January 2020 - Present

Chanel has assisted in project scheduling, coordination and reporting for various geotechnical investigations throughout Ontario.

Chanel's responsibilities included requesting public and private utility locates, coordinating drilling, topographic surveys and field staff, and completing associated reporting.

Soil Remediation Activities

Project Team Member | CRH Canada Group Inc. | King City, Ontario, Canada | April 2021 – May 2021

Chanel provided on-Site environmental consulting services related to remediation of contaminated soils.

Chanel's responsibilities included overseeing excavation of contaminated soil, soil sampling, soil disposal, material importation and backfilling, analyzing and summarizing soil analytical results, and completing associated reporting.

UST Removal/Replacement

Project Team Member |

Canadian Tire Real Estate Limited | Mississauga, Ontario, Canada | April 2021 – June 2021

Chanel provided environmental oversight during pre-investigative drilling activities, followed by underground storage tank removal oversight, documentation and associated reporting for the TSSA.

Soil Sampling and Classification

Project Team Member |

Canadian Tire Real Estate Limited | Ontario, Canada | February 2021 – September 2021

Chanel provided environmental oversight during drilling activities, soil characterization, sample collection, analyzing and summarizing analytical data and completing associated reporting for various sites throughout the Greater Toronto Area.

Phase II Environmental Site Assessment

Project Team Member |

Freure Homes | Kitchener, Ontario, Canada | February 2021 – March 2021

Chanel assisted the project team in preparing the Phase Two ESA report as part of the due diligence activities to support a Record of Site Condition filing for the Site.

Chanel's responsibilities included analyzing and summarizing the groundwater, soil and soil vapour analytical results.

Phase I Environmental Site Assessment

Project Team Member |

Premium Properties Limited | Etobicoke, Ontario, Canada | January 2021 – February 2021

Chanel assisted the project team in the early stages of a Phase I ESA in support of the potential sale of the Property.

Chanel's responsibilities included obtaining and analyzing historical records, as well as assisted in completing associated reporting.

Career history

2020 - present	GHD, Graduate Environmental Scientist, Mississauga, ON
2019 - 2020	Morguard Real Estate Investments Inc., Environmental Project Coordinator, Mississauga, ON

Appendix B

Environmental Database Search Report

DATABASE REPORT

Project Property:	*37 Norton Avenue* *37 Norton Avenue* *North York ON M2N 4A2*
Project No:	*12579218*
Report Type:	*Standard Report*
Order No:	*22110500001*
Requested by:	*GHD Limited*
Date Completed:	*November 9, 2022*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*37 Norton Avenue* *37 Norton Avenue North York ON M2N 4A2*
Project No:	*12579218*

Coordinates:

Latitude:	*43.7723265*
Longitude:	*-79.4113292*
UTM Northing:	*4,847,812.58*
UTM Easting:	*627,857.05*
UTM Zone:	*17T*

Elevation:	*590 FT* *179.85 M*

Order Information:

Order No:	*22110500001*
Date Requested:	*November 5, 2022*
Requested by:	*GHD Limited*
Report Type:	*Standard Report*

Historical/Products:

Aerial Photographs	*Aerials - National Collection*
City Directory Search	*CD - Subject Site plus 10 Adjacent Properties*
ERIS Xplorer	*ERIS Xplorer*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AST	Aboveground Storage Tanks	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	13	13
CA	Certificates of Approval	Y	0	11	11
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Manufacturers and Distributors	Y	0	0	0
CHM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	1	1
DRL	Drill Hole Database	Y	0	0	0
DTNK	Delisted Fuel Tanks	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	1	1
EBR	Environmental Registry	Y	0	1	1
ECA	Environmental Compliance Approval	Y	0	5	5
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	1	31	32
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of Expired Fuels Safety Facilities	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
FST	Fuel Storage Tank	Y	0	0	0
FSTH	Fuel Storage Tank - Historic	Y	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	33	33
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	3	3
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
INC	Fuel Oil Spills and Leaks	Y	0	1	1
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	Pipeline Incidents	Y	0	2	2
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	7	7
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	10	10
SPL	Ontario Spills	Y	0	6	6
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	19	19
	Total:		1	144	145

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	EHS		37 Norton Ave North York ON M3	NNE/16.7	0.00	37

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
2	CA	NORTH YORK CITY	NORTON AVE./DORIS AVE. NORTH YORK CITY ON	W/58.6	-1.35	37
3	EHS		46 Parkview Ave North York ON M2N 3Y2	SSE/74.6	-1.25	37
4	EHS		22-26 Norton Avenue North York/ Toronto ON M2N 0C6	W/125.1	-2.58	37
5	ECA	City of Toronto	Intersection of Doris Avenue and McKee Avenue Toronto ON M2N 5V7	NW/126.2	1.25	38
5	ECA	City of Toronto	Intersection of Doris Avenue and McKee Avenue Toronto ON M2N 5V7	NW/126.2	1.25	38
6	GEN	Waterdrop Medical Centre	20 Norton Ave North York ON M2N 0C6	W/127.6	-1.98	38
7	EHS		5255 Yonge St., Suite 905 TORONTO ON M2N 5P8	W/131.2	-5.02	38
7	EHS		5255 Yonge St., Suite 905 TORONTO ON M2N 5P8	W/131.2	-5.02	39
8	RSC	Bravo Residences Inc.	9 McKee Avenue and 22, 24, 26 Norton Avenue, Toronto, On M2N 0C6 ON	WNW/143.9	-0.96	39
9	SCT	MediaEdge Communications Inc.	5255 Yonge St Suite 1000 Toronto ON M2N 6P4	W/146.4	-5.52	39
9	SCT	MediaEdge Communications Inc.	5255 Yonge St Suite 1000 Toronto ON M2N 6P4	W/146.4	-5.52	40
9	EHS		5255 Yonge St. Toronto ON M2N 6P4	W/146.4	-5.52	40

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	EHS		5255 Yonge Street TORONTO ON M2N 6P4	W/146.4	-5.52	40
9	EBR	Yonge/Norton (Canada IV) Holdings Limited	5255 Yonge Street Toronto Ontario M2N 6P4 Toronto ON	W/146.4	-5.52	40
9	GEN	Atlas Cold Storage	5255 Younge Street, Suite 900 Nroth York ON	W/146.4	-5.52	41
9	CA	Yonge/Norton (Canada IV) Holdings Limited	5255 Yonge Street Toronto ON	W/146.4	-5.52	41
9	SCT	Sherwood Digital Copy & Print	5255 Yonge St Suite 105 North York ON M2N 6P4	W/146.4	-5.52	41
9	SCT	Foster's Wine Estates Canada	5255 Yonge St Suite 1111 North York ON M2N 6P4	W/146.4	-5.52	42
9	ECA	Yonge/Norton (Canada IV) Holdings Limited	5255 Yonge Street Toronto ON M5B 1J3	W/146.4	-5.52	42
9	GEN	Nexus Mechanical Group	5255 Yonge St. Toronto ON M2N 6P4	W/146.4	-5.52	42
9	GEN	Norton Dental	5255 Yonge Street #107 North York ON M2N6P4	W/146.4	-5.52	43
9	GEN	Norton Dental	5255 Yonge Street #107 North York ON M2N6P4	W/146.4	-5.52	43
9	EHS		5255 Yonge St Toronto ON M2N6P4	W/146.4	-5.52	43
9	EHS		5255 Yonge St Toronto ON	W/146.4	-5.52	43
9	EHS		5255 Yonge Street North York ON M2N 5P8	W/146.4	-5.52	44

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	EHS		5255 Yonge Street North York ON M2N 5P8	W/146.4	-5.52	44
10	CA	NORTH YORK CITY	PARKVIEW/DORIS AVES./YONGE ST. NORTH YORK CITY ON	SW/153.5	-8.95	44
11	WWIS		5285 YONGE ST Toronto ON ***Well ID:*** 7166636	W/155.4	-2.64	44
12	WWIS		ON ***Well ID:*** 7279503	W/159.0	-2.68	48
13	WWIS		9 MC KEE AVE TORONTO ON ***Well ID:*** 6929766	WNW/160.8	-0.89	49
14	BORE		ON	W/163.6	-2.86	52
15	WWIS		5285 YONGE STREET TORONTO ON ***Well ID:*** 7226904	W/163.7	-1.90	54
16	WWIS		5285 YONGE STREET TORONTO ON ***Well ID:*** 7226903	W/165.1	-1.90	57
17	BORE		ON	WSW/165.7	-9.72	61
18	GEN	M.S.A.A. Investments Ltd. & Norton-Yonge Inc.	5285 Yonge Street Toronto ON M2N 5R3	W/165.8	-2.10	63
19	EHS		5285 Yonge Street North York ON	W/166.8	-2.86	63
20	BORE		ON	W/167.3	-1.45	63
21	WWIS		5285 YONGE ST Toronto ON	WNW/168.6	-1.34	65

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 7166635			
22	HINC		78 PARKVIEW AVENUE TORONTO ON M2N 3Y2	E/169.7	-2.05	68
23	WWIS		5285 YONGE STREET TORONTO ON ***Well ID:*** 7226902	W/170.3	-2.10	69
24	GEN	TORONTO DISTRICT SCHOOL BOARD	MCKEE P.S. 35 CHURCH AVE TORONTO ON M2N 6X6	N/170.5	1.41	72
24	GEN	TORONTO DISTRICT SCHOOL BOARD	MCKEE P.S. 35 CHURCH AVE TORONTO ON M2N 6X6	N/170.5	1.41	72
24	GEN	TORONTO DISTRICT SCHOOL BOARD	MCKEE P.S. 35 CHURCH AVE TORONTO ON M2N 6X6	N/170.5	1.41	73
25	GEN	CYBERMEDIX HEALTH SERVICES LTD.	5225 YONGE ST., TORONTO C/O 6 VANSCO RD. TORONTO ON M2N 5P8	WSW/173.8	-9.71	73
25	GEN	CYBERMEDIX (OUT OF BUSINESS)TD. 11-259	5225 YONGE ST., TORONTO C/O 6 VANSCO RD. TORONTO ON M2N 5P8	WSW/173.8	-9.71	73
25	GEN	CYBERMEDIX HEALTH SERVICES LTD. 11-259	5225 YONGE ST., TORONTO C/O 6 VANSCO RD. TORONTO ON M2N 5P8	WSW/173.8	-9.71	74
25	GEN	CYBERMEDIX HEALTH (OUT OF BUSINESS)	5225 YONGE STREET TORONTO ON M2N 5P8	WSW/173.8	-9.71	74
26	WWIS		5285 YONGE ST Toronto ON ***Well ID:*** 7166634	W/174.3	-1.45	74
27	WWIS		ON ***Well ID:*** 7236208	W/180.3	-3.35	77
28	BORE		ON	WNW/181.1	0.02	78
29	EHS		5285 Yonge Street Toronto ON M2N 5R3	W/181.4	-3.82	80

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
30	BORE		ON	W/186.6	-6.07	81
31	EHS		between Florence Avenue and Drewry Avenue Toronto ON	WSW/187.8	-9.36	82
32	SPL	UNKNOWN	YONGE AND NORTON TORONTO CITY ON	W/188.0	-4.66	82
33	BORE		ON	SW/189.6	-10.09	83
34	BORE		ON	WSW/189.9	-8.90	84
35	SPL	Enbridge Gas Distribution Inc.	62 Kingsdale Ave Toronto ON M2N 3W4	SE/190.3	-3.54	86
36	PINC		62 Kingsdale Avenue, Toronto ON	SE/190.4	-3.54	86
37	SPL	Unknown	Yonge Street & Ellerslie Ave Toronto ON	W/190.4	-6.04	87
38	CA	NORTH YORK CITY	KINGSDALE AVE/DORIS AVE. NORTH YORK CITY ON	S/194.3	-6.21	87
39	BORE		ON	W/195.5	-5.55	88
40	EHS		5203, 5205, 5211, 5213 & 5215 Yonge Street &11 Parkview Avenue, Toronto North York ON M2N 5P7	SW/195.6	-10.01	89
40	EHS		5203, 5205, 5211, 5213 & 5215 Yonge Street &11 Parkview Avenue, Toronto North York ON M2N 5P7	SW/195.6	-10.01	90
41	EHS		5205-5215 Yonge st & 11 Parkview Ave, Toronto	SW/195.7	-10.09	90

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			North York ON M2N 5P7			
41	EHS		5205-5215 Yonge st & 11 Parkview Ave, Toronto North York ON M2N 5P7	SW/195.7	-10.09	90
42	EHS		5294 - 5300 Yonge Street Toronto ON	W/195.9	-3.80	90
43	BORE		ON	SW/201.2	-9.92	90
44	WWIS		5290 YONGE STREET TORONTO ON ***Well ID:*** 6930062	W/203.6	-3.34	92
45	PINC	ENBRIDGE GAS INC	79 PARKVIEW AVE,,TORONTO,ON,M2N 3Y3,CA ON	ESE/206.3	-2.85	96
46	EHS		5215 Yonge St Toronto ON M2N5P7	SW/207.7	-10.00	96
47	SPL	Enbridge Gas Distribution Inc.	41 Kingsdale Ave. Toronto ON M2N 3W3	SSE/210.5	-5.10	96
47	HINC		41 KINGSDALE AVENUE TORONTO ON M2N 3W3	SSE/210.5	-5.10	97
48	SPL		Back of St. Louis Bar & Grill at 5309 Yonge St then on Church St & Doris St. <UNOFFICIAL> Toronto ON M2N 5R4	WNW/212.0	-0.24	97
49	BORE		ON	WSW/214.2	-9.99	98
50	CA	NORTH YORK CITY	CHURCH AVE/DORIS AVE. NORTH YORK CITY ON	NNW/215.3	1.98	100
50	CA	NORTH YORK CITY	CHURCH AVE/DORIS AVE/KENNETH NORTH YORK CITY ON	NNW/215.3	1.98	100

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
50	CA	TORONTO CITY	DORIS AVE/CHURCH AVE. TORONTO ON	NNW/215.3	1.98	100
50	CA	TORONTO CITY	DORIS AVE/CHURCH AVE. TORONTO ON	NNW/215.3	1.98	101
50	CA	TORONTO CITY, NORTH YORK DISTRICT	DORIS AVE./CHURCH AVE. TORONTO ON	NNW/215.3	1.98	101
51	RSC	CITY OF TORONTO	5248 YONGE STREET, TORONTO, ON M3C 3A1 Toronto ON	WSW/216.3	-7.72	101
52	EASR	G GROUP 5220 YONGE LTD.	5220-5254 Yonge Toronto ON M2N 5P6	WSW/218.0	-6.84	102
53	RSC	G GROUP 5220 YONGE LTD.	5250 YONGE STREET, TORONTO, ON M2N 5P6 Toronto ON	WSW/218.0	-7.29	103
53	SPL		5250 Yonge St. Toronto ON	WSW/218.0	-7.29	104
54	EHS		5270-5290 Yonge St Toronto ON M2N 5P9	W/218.4	-5.11	104
54	RSC	DUCA Community Credit Union Limited	5290 YONGE ST, TORONTO, ON, M2N 5P9 TORONTO ON M2N 5P9	W/218.4	-5.11	105
54	RSC	Jack Vanderkooy and Cornelis Bijl	5270 Yonge Street, Toronto, Ontario , M2N 5P9 ON	W/218.4	-5.11	105
54	EHS		5290 Yonge Street North York ON M2N 5P9	W/218.4	-5.11	105
55	GEN	LOCALMOTION BICYCLE COMPANY INC.	BASEMENT 5252 YONGE STREET TORONTO ON M2N 5P6	WSW/219.2	-7.29	106

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
55	GEN	LOCALMOTION BICYCLE COMPANY INC. 24-353	BASEMENT 5252 YONGE STREET TORONTO ON M2N 5P6	WSW/219.2	-7.29	106
55	HINC		5252 Younge Street TORONTO ON	WSW/219.2	-7.29	106
56	WWIS		5300 YONGE ST. NORTH YORK ON ***Well ID:*** 7293941	W/219.8	-2.46	107
57	BORE		ON	W/222.5	-4.67	109
58	WWIS		5220 YONGE ST. ON ***Well ID:*** 7260570	WSW/224.1	-9.25	111
59	SCT	NORTH YORK PRINTING AND GRAPH	5308 YONGE ST NORTH YORK ON M2N 5P9	WNW/226.3	-1.57	117
59	SCT	North York Printing & Graphics	5308 Yonge St North York ON M2N 5P9	WNW/226.3	-1.57	117
59	SCT	North York Printing & Graphics Inc.	5308 Yonge St North York ON M2N 5P9	WNW/226.3	-1.57	117
59	GEN	NORTH YORK PRINTING & GRAPHICS INC.	5308 YONGE STREET TORONTO ON	WNW/226.3	-1.57	118
59	GEN	NORTH YORK PRINTING & GRAPHICS INC.	5308 YONGE STREET TORONTO ON	WNW/226.3	-1.57	118
60	GEN	WAYCOOL UPTOWN/1304509	5203 YONGE STREET NORTH YORK ON M2N 5P7	SW/226.3	-10.21	118
61	GEN	HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W/226.9	-3.78	118
61	GEN	HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W/226.9	-3.78	119

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
61	GEN	HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W/226.9	-3.78	119
61	GEN	HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W/226.9	-3.78	119
61	GEN	HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W/226.9	-3.78	119
61	GEN	HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W/226.9	-3.78	120
61	GEN	HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W/226.9	-3.78	120
62	BORE		ON	SW/229.1	-10.28	120
63	WWIS		5220 YONGE ST Toronto ON ***Well ID:*** 7275505	WSW/232.1	-9.35	122
64	WWIS		5220 YONGE ST TORONTO ON ***Well ID:*** 7275502	WSW/232.4	-9.35	127
65	EHS		5300 Yonge Street Toronto ON	W/233.6	-2.89	131
66	SCT	PRINTING HOUSE DEMOGRAPHY	5318 YONGE ST NORTH YORK ON M2N 5P9	WNW/234.3	-0.57	132
66	SCT	PRINTING HOUSE THERMOGRAPHY	5318 Yonge St North York ON M2N 5P9	WNW/234.3	-0.57	132
66	SCT	TPH The Printing House Limited	5318 Yonge St North York ON M2N 5P9	WNW/234.3	-0.57	132
66	GEN	PRINTING HOUSE LTD., THE	5318 YONGE STREET NORTH YORK ON M2N 5P9	WNW/234.3	-0.57	133

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
66	GEN	PRINTING HOUSE LTD., THE	5318 YONGE STREET NORTH YORK ON M2N 5P9	WNW/234.3	-0.57	133
66	GEN	PRINTING HOUSE LTD., THE	5318 YONGE STREET NORTH YORK ON M2N 5P9	WNW/234.3	-0.57	133
66	EHS		5318 Yonge Street Toronto ON	WNW/234.3	-0.57	133
67	EHS		1 Canterbury Pl Toronto ON M2N0G7	W/234.6	-4.66	133
68	BORE		ON	WNW/234.9	0.06	134
69	EHS		5220-5254 Yonge Street Toronto ON	WSW/236.0	-8.91	135
70	CA	NORTH YORK CITY	CHURCH AVE/YONGE ST/DORIS AVE. NORTH YORK CITY ON	NW/236.9	1.08	135
71	WWIS		5250 YONGE ST. Toronto ON ***Well ID:*** 7103425	WSW/237.1	-7.40	136
72	GEN	SEEGENE CANADA INC	5200 Yonge St, Unit 200 North York ON M2N 5P6	SW/237.1	-9.98	143
73	WWIS		5254 YONGE ST TORONTO ON ***Well ID:*** 7321373	WSW/238.7	-7.34	144
74	CA	WING GOURMET LIMITED	5195 YONGE STREET NORTH YORK CITY ON M2N 5P7	SW/241.1	-10.89	147
75	WWIS		3246 YONGE ST Toronto ON ***Well ID:*** 7111503	WSW/241.3	-7.62	147
76	WWIS		5220 YONGE ST ON ***Well ID:*** 7260571	WSW/241.5	-10.01	161

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
77	RSC	G GROUP 5220 YONGE LTD.	5246 YONGE STREET, TORONTO, ON M2N 5P6 Toronto ON	WSW/243.0	-8.80	167
77	RSC	THE CITY OF TORONTO	5222 YONGE STREET, TORONTO, ON M2N 5P6 Toronto ON	WSW/243.0	-8.80	169
78	INC		28 EMPRESS AVENUE, TORONTO ON	SSW/243.1	-8.97	170
79	EHS		5220 Yonge St. Toronto ON M2N 5P6	WSW/243.2	-9.59	170
79	ECA	G Group 5220 Yonge Ltd.	5220 Yonge St 5250 Yonge St Toronto ON L4C 9T3	WSW/243.2	-9.59	171
80	WWIS		ON ***Well ID:*** 7243799	SW/244.4	-9.98	171
81	EHS		5220, 5222, 5246 and 5250 Yonge Street PIN 10143-0149 LT, PIN 10143-0146 LT North York ON	WSW/244.9	-8.66	172
82	EHS		5323 Yonge Street North York ON M2N 5R4	WNW/245.1	-0.04	172
83	EHS		5220 yonge st North York ON M2N 5P6	WSW/248.1	-8.80	172
84	EHS		5320-5324 Yonge St North York ON M2N 5P9	WNW/248.8	-0.36	172
85	ECA	5200 Yonge G.P. Inc.	5200 Yonge St Toronto ON L8L 8M9	WSW/249.5	-9.99	173
85	GEN	5200 Yonge G.P.Inc	5200 Yonge Street North York ON M2N 5P6	WSW/249.5	-9.99	173
85	GEN	5200 Yonge G.P.Inc	5200 Yonge Street North York ON M2N 5P6	WSW/249.5	-9.99	173

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
85	GEN	5200 Yonge G.P.Inc	5200 Yonge Street North York ON M2N 5P6	WSW/249.5	-9.99	174
85	GEN	Xact Mechanical	5200 Yonge Street Toronto ON M2N 5P6	WSW/249.5	-9.99	174
85	CPU	5200 Yonge G.P. Inc. and 5200 Yonge Limited Partnership	5200 Yonge Street Toronto, ON Canada ON	WSW/249.5	-9.99	174
86	EHS		5294 Yonge St Toronto ON M2N5P9	W/249.9	-3.33	174

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 13 BORE site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	ON	WNW	181.14	28
	ON	WNW	234.86	68

Lower Elevation	Address	Direction	Distance (m)	Map Key
	ON	W	163.62	14
	ON	WSW	165.71	17
	ON	W	167.26	20
	ON	W	186.57	30
	ON	SW	189.64	33
	ON	WSW	189.89	34
	ON	W	195.48	39

ON	SW	201.21	43
ON	WSW	214.20	49
ON	W	222.54	57
ON	SW	229.08	62

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 11 CA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
TORONTO CITY	DORIS AVE/CHURCH AVE. TORONTO ON	NNW	215.31	50
NORTH YORK CITY	CHURCH AVE/DORIS AVE/KENNETH NORTH YORK CITY ON	NNW	215.31	50
NORTH YORK CITY	CHURCH AVE/DORIS AVE. NORTH YORK CITY ON	NNW	215.31	50
TORONTO CITY, NORTH YORK DISTRICT	DORIS AVE./CHURCH AVE. TORONTO ON	NNW	215.31	50
TORONTO CITY	DORIS AVE/CHURCH AVE. TORONTO ON	NNW	215.31	50
NORTH YORK CITY	CHURCH AVE/YONGE ST/DORIS AVE. NORTH YORK CITY ON	NW	236.90	70

Lower Elevation	Address	Direction	Distance (m)	Map Key
NORTH YORK CITY	NORTON AVE./DORIS AVE. NORTH YORK CITY ON	W	58.60	2
Yonge/Norton (Canada IV) Holdings Limited	5255 Yonge Street Toronto ON	W	146.41	9
NORTH YORK CITY	PARKVIEW/DORIS AVES./YONGE ST. NORTH YORK CITY ON	SW	153.52	10
NORTH YORK CITY	KINGSDALE AVE/DORIS AVE. NORTH YORK CITY ON	S	194.32	38
WING GOURMET LIMITED	5195 YONGE STREET NORTH YORK CITY ON M2N 5P7	SW	241.09	74

CPU - Certificates of Property Use

A search of the CPU database, dated 1994 - Sep 30, 2022 has found that there are 1 CPU site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
5200 Yonge G.P. Inc. and 5200 Yonge Limited Partnership	5200 Yonge Street Toronto, ON Canada ON	WSW	249.48	85

EASR - Environmental Activity and Sector Registry

A search of the EASR database, dated Oct 2011- Sep 30, 2022 has found that there are 1 EASR site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
G GROUP 5220 YONGE LTD.	5220-5254 Yonge Toronto ON M2N 5P6	WSW	218.02	52

EBR - Environmental Registry

A search of the EBR database, dated 1994 - Sep 30, 2022 has found that there are 1 EBR site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
Yonge/Norton (Canada IV) Holdings Limited	5255 Yonge Street Toronto Ontario M2N 6P4 Toronto ON	W	146.41	9

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011- Sep 30, 2022 has found that there are 5 ECA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
City of Toronto	Intersection of Doris Avenue and McKee Avenue Toronto ON M2N 5V7	NW	126.24	5
City of Toronto	Intersection of Doris Avenue and McKee Avenue Toronto ON M2N 5V7	NW	126.24	5

Lower Elevation	Address	Direction	Distance (m)	Map Key
Yonge/Norton (Canada IV) Holdings Limited	5255 Yonge Street Toronto ON M5B 1J3	W	146.41	9
G Group 5220 Yonge Ltd.	5220 Yonge St 5250 Yonge St Toronto ON L4C 9T3	WSW	243.25	79
5200 Yonge G.P. Inc.	5200 Yonge St Toronto ON L8L 8M9	WSW	249.48	85

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jul 31, 2022 has found that there are 32 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	37 Norton Ave North York ON M3	NNE	16.75	1

Lower Elevation	Address	Direction	Distance (m)	Map Key

46 Parkview Ave North York ON M2N 3Y2	SSE	74.65	3
22-26 Norton Avenue North York/ Toronto ON M2N 0C6	W	125.10	4
5255 Yonge St., Suite 905 TORONTO ON M2N 5P8	W	131.23	7
5255 Yonge St., Suite 905 TORONTO ON M2N 5P8	W	131.23	7
5255 Yonge St. Toronto ON M2N 6P4	W	146.41	9
5255 Yonge Street TORONTO ON M2N 6P4	W	146.41	9
5255 Yonge St Toronto ON M2N6P4	W	146.41	9
5255 Yonge St Toronto ON	W	146.41	9
5255 Yonge Street North York ON M2N 5P8	W	146.41	9
5255 Yonge Street North York ON M2N 5P8	W	146.41	9
5285 Yonge Street North York ON	W	166.82	19
5285 Yonge Street Toronto ON M2N 5R3	W	181.38	29
between Florence Avenue and Drewry Avenue Toronto ON	WSW	187.81	31

5203, 5205, 5211, 5213 & 5215 Yonge Street &11 Parkview Avenue, Toronto North York ON M2N 5P7	SW	195.63	40
5203, 5205, 5211, 5213 & 5215 Yonge Street &11 Parkview Avenue, Toronto North York ON M2N 5P7	SW	195.63	40
5205-5215 Yonge st & 11 Parkview Ave, Toronto North York ON M2N 5P7	SW	195.71	41
5205-5215 Yonge st & 11 Parkview Ave, Toronto North York ON M2N 5P7	SW	195.71	41
5294 - 5300 Yonge Street Toronto ON	W	195.95	42
5215 Yonge St Toronto ON M2N5P7	SW	207.70	46
5270-5290 Yonge St Toronto ON M2N 5P9	W	218.44	54
5290 Yonge Street North York ON M2N 5P9	W	218.44	54
5300 Yonge Street Toronto ON	W	233.62	65
5318 Yonge Street Toronto ON	WNW	234.27	66
1 Canterbury Pl Toronto ON M2N0G7	W	234.60	67
5220-5254 Yonge Street Toronto ON	WSW	236.04	69

5220 Yonge St. Toronto ON M2N 5P6	WSW	243.25	79
5220, 5222, 5246 and 5250 Yonge Street PIN 10143-0149 LT, PIN 10143-0146 LT North York ON	WSW	244.95	81
5323 Yonge Street North York ON M2N 5R4	WNW	245.14	82
5220 yonge st North York ON M2N 5P6	WSW	248.06	83
5320-5324 Yonge St North York ON M2N 5P9	WNW	248.77	84
5294 Yonge St Toronto ON M2N5P9	W	249.94	86

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Apr 30, 2022 has found that there are 33 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
TORONTO DISTRICT SCHOOL BOARD	MCKEE P.S. 35 CHURCH AVE TORONTO ON M2N 6X6	N	170.47	24
TORONTO DISTRICT SCHOOL BOARD	MCKEE P.S. 35 CHURCH AVE TORONTO ON M2N 6X6	N	170.47	24
TORONTO DISTRICT SCHOOL BOARD	MCKEE P.S. 35 CHURCH AVE TORONTO ON M2N 6X6	N	170.47	24

Lower Elevation	Address	Direction	Distance (m)	Map Key
Waterdrop Medical Centre	20 Norton Ave North York ON M2N 0C6	W	127.59	6

Nexus Mechanical Group	5255 Yonge St. Toronto ON M2N 6P4	W	146.41	9
Norton Dental	5255 Yonge Street #107 North York ON M2N6P4	W	146.41	9
Norton Dental	5255 Yonge Street #107 North York ON M2N6P4	W	146.41	9
Atlas Cold Storage	5255 Younge Street, Suite 900 Nroth York ON	W	146.41	9
M.S.A.A. Investments Ltd. & Norton-Yonge Inc.	5285 Yonge Street Toronto ON M2N 5R3	W	165.77	18
CYBERMEDIX HEALTH SERVICES LTD.	5225 YONGE ST., TORONTO C/O 6 VANSCO RD. TORONTO ON M2N 5P8	WSW	173.81	25
CYBERMEDIX (OUT OF BUSINESS)TD. 11-259	5225 YONGE ST., TORONTO C/O 6 VANSCO RD. TORONTO ON M2N 5P8	WSW	173.81	25
CYBERMEDIX HEALTH SERVICES LTD. 11-259	5225 YONGE ST., TORONTO C/O 6 VANSCO RD. TORONTO ON M2N 5P8	WSW	173.81	25
CYBERMEDIX HEALTH (OUT OF BUSINESS)	5225 YONGE STREET TORONTO ON M2N 5P8	WSW	173.81	25
LOCALMOTION BICYCLE COMPANY INC.	BASEMENT 5252 YONGE STREET TORONTO ON M2N 5P6	WSW	219.25	55
LOCALMOTION BICYCLE COMPANY INC. 24-353	BASEMENT 5252 YONGE STREET TORONTO ON M2N 5P6	WSW	219.25	55
NORTH YORK PRINTING & GRAPHICS INC.	5308 YONGE STREET TORONTO ON	WNW	226.28	59

NORTH YORK PRINTING & GRAPHICS INC.	5308 YONGE STREET TORONTO ON	WNW	226.28	59
WAYCOOL UPTOWN/1304509	5203 YONGE STREET NORTH YORK ON M2N 5P7	SW	226.30	60
HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W	226.93	61
HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W	226.93	61
HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W	226.93	61
HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W	226.93	61
HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W	226.93	61
HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W	226.93	61
HealthOne Walkin and Medical Clinic Inc	5292 Yonge St North York ON M2N 5P9	W	226.93	61
PRINTING HOUSE LTD., THE	5318 YONGE STREET NORTH YORK ON M2N 5P9	WNW	234.27	66
PRINTING HOUSE LTD., THE	5318 YONGE STREET NORTH YORK ON M2N 5P9	WNW	234.27	66
PRINTING HOUSE LTD., THE	5318 YONGE STREET NORTH YORK ON M2N 5P9	WNW	234.27	66
SEEGENE CANADA INC	5200 Yonge St, Unit 200 North York ON M2N 5P6	SW	237.14	72

Xact Mechanical	5200 Yonge Street Toronto ON M2N 5P6	WSW	249.48	85
5200 Yonge G.P.Inc	5200 Yonge Street North York ON M2N 5P6	WSW	249.48	85
5200 Yonge G.P.Inc	5200 Yonge Street North York ON M2N 5P6	WSW	249.48	85
5200 Yonge G.P.Inc	5200 Yonge Street North York ON M2N 5P6	WSW	249.48	85

HINC - TSSA Historic Incidents

A search of the HINC database, dated 2006-June 2009* has found that there are 3 HINC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	78 PARKVIEW AVENUE TORONTO ON M2N 3Y2	E	169.67	22
	41 KINGSDALE AVENUE TORONTO ON M2N 3W3	SSE	210.47	47
	5252 Younge Street TORONTO ON	WSW	219.25	55

INC - Fuel Oil Spills and Leaks

A search of the INC database, dated Feb 28, 2022 has found that there are 1 INC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	28 EMPRESS AVENUE, TORONTO ON	SSW	243.08	78

PINC - Pipeline Incidents

A search of the PINC database, dated Feb 28, 2021 has found that there are 2 PINC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	62 Kingsdale Avenue, Toronto ON	SE	190.36	36
ENBRIDGE GAS INC	79 PARKVIEW AVE,,TORONTO,ON, M2N 3Y3,CA ON	ESE	206.27	45

RSC - Record of Site Condition

A search of the RSC database, dated 1997-Sept 2001, Oct 2004-Sep 2022 has found that there are 7 RSC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
Bravo Residences Inc.	9 McKee Avenue and 22, 24, 26 Norton Avenue, Toronto, On M2N 0C6 ON	WNW	143.91	8
CITY OF TORONTO	5248 YONGE STREET, TORONTO, ON M3C 3A1 Toronto ON	WSW	216.29	51
G GROUP 5220 YONGE LTD.	5250 YONGE STREET, TORONTO, ON M2N 5P6 Toronto ON	WSW	218.03	53
Jack Vanderkooy and Cornelis Bijl	5270 Yonge Street, Toronto, Ontario , M2N 5P9 ON	W	218.44	54
DUCA Community Credit Union Limited	5290 YONGE ST, TORONTO, ON, M2N 5P9 TORONTO ON M2N 5P9	W	218.44	54
THE CITY OF TORONTO	5222 YONGE STREET, TORONTO, ON M2N 5P6 Toronto ON	WSW	243.01	77
G GROUP 5220 YONGE LTD.	5246 YONGE STREET, TORONTO, ON M2N 5P6 Toronto ON	WSW	243.01	77

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 10 SCT site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
MediaEdge Communications Inc.	5255 Yonge St Suite 1000 Toronto ON M2N 6P4	W	146.41	9
Sherwood Digital Copy & Print	5255 Yonge St Suite 105 North York ON M2N 6P4	W	146.41	9
Foster's Wine Estates Canada	5255 Yonge St Suite 1111 North York ON M2N 6P4	W	146.41	9
MediaEdge Communications Inc.	5255 Yonge St Suite 1000 Toronto ON M2N 6P4	W	146.41	9
North York Printing & Graphics Inc.	5308 Yonge St North York ON M2N 5P9	WNW	226.28	59
North York Printing & Graphics	5308 Yonge St North York ON M2N 5P9	WNW	226.28	59
NORTH YORK PRINTING AND GRAPH	5308 YONGE ST NORTH YORK ON M2N 5P9	WNW	226.28	59
TPH The Printing House Limited	5318 Yonge St North York ON M2N 5P9	WNW	234.27	66
PRINTING HOUSE THERMOGRAPHY	5318 Yonge St North York ON M2N 5P9	WNW	234.27	66
PRINTING HOUSE DEMOGRAPHY	5318 YONGE ST NORTH YORK ON M2N 5P9	WNW	234.27	66

SPL - Ontario Spills

A search of the SPL database, dated 1988-Sep 2020; Dec 2020-Mar 2021 has found that there are 6 SPL site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
UNKNOWN	YONGE AND NORTON TORONTO CITY ON	W	188.03	32
Enbridge Gas Distribution Inc.	62 Kingsdale Ave Toronto ON M2N 3W4	SE	190.35	35
Unknown	Yonge Street & Ellerslie Ave Toronto ON	W	190.37	37
Enbridge Gas Distribution Inc.	41 Kingsdale Ave. Toronto ON M2N 3W3	SSE	210.47	47
	Back of St. Louis Bar & Grill at 5309 Yonge St then on Church St & Doris St. <UNOFFICIAL> Toronto ON M2N 5R4	WNW	212.00	48
	5250 Yonge St. Toronto ON	WSW	218.03	53

WWIS - Water Well Information System

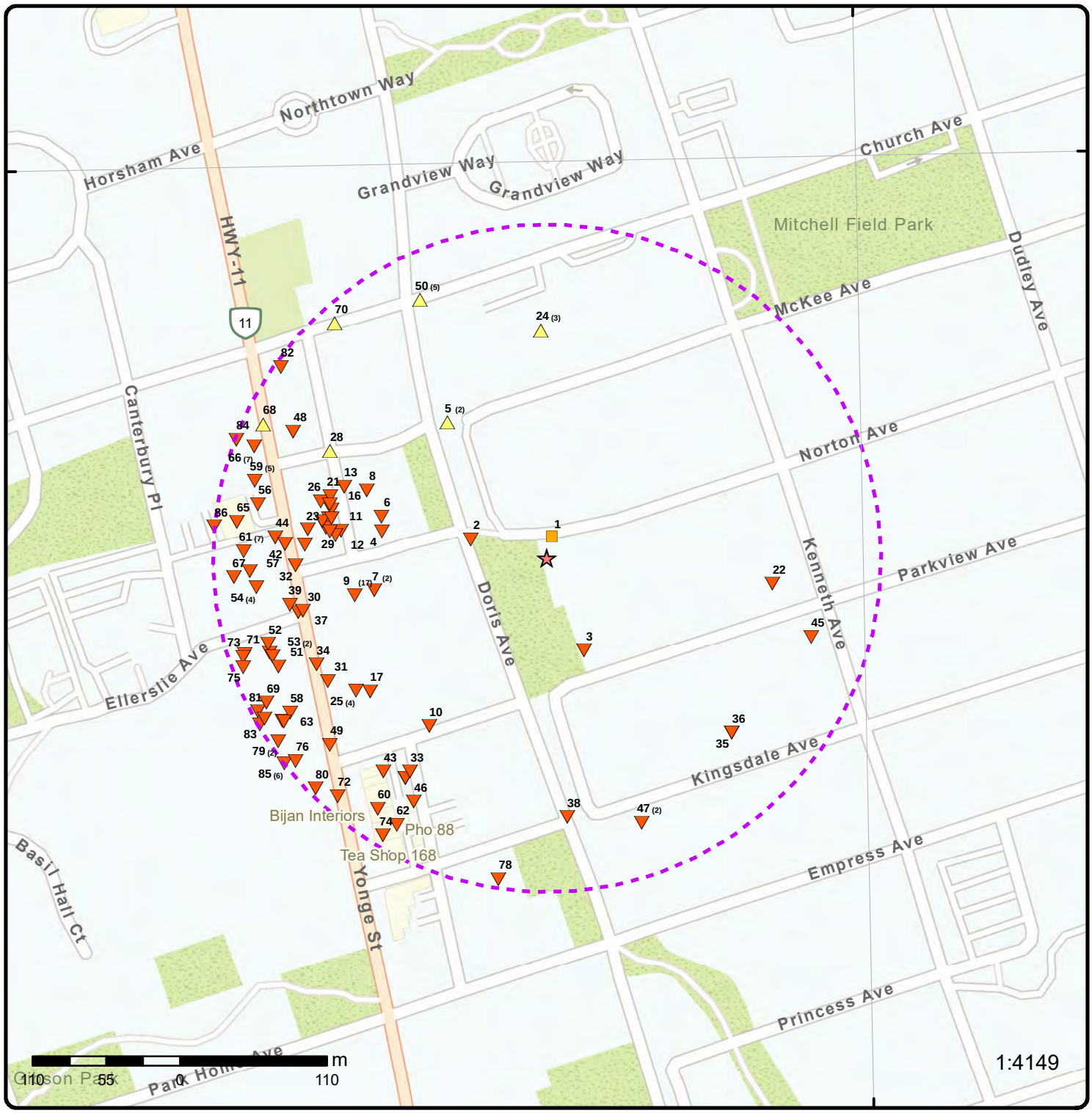
A search of the WWIS database, dated Jun 30 2022 has found that there are 19 WWIS site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	5285 YONGE ST Toronto ON ***Well ID:*** 7166636	W	155.39	11
	ON ***Well ID:*** 7279503	W	159.00	12
	9 MC KEE AVE TORONTO ON ***Well ID:*** 6929766	WNW	160.78	13
	5285 YONGE STREET TORONTO ON ***Well ID:*** 7226904	W	163.71	15

5285 YONGE STREET TORONTO ON ***Well ID:*** 7226903	W	165.11	**16**
5285 YONGE ST Toronto ON ***Well ID:*** 7166635	WNW	168.57	**21**
5285 YONGE STREET TORONTO ON ***Well ID:*** 7226902	W	170.27	**23**
5285 YONGE ST Toronto ON ***Well ID:*** 7166634	W	174.29	**26**
ON ***Well ID:*** 7236208	W	180.32	**27**
5290 YONGE STREET TORONTO ON ***Well ID:*** 6930062	W	203.63	**44**
5300 YONGE ST. NORTH YORK ON ***Well ID:*** 7293941	W	219.80	**56**
5220 YONGE ST. ON ***Well ID:*** 7260570	WSW	224.14	**58**
5220 YONGE ST Toronto ON ***Well ID:*** 7275505	WSW	232.06	**63**
5220 YONGE ST TORONTO ON ***Well ID:*** 7275502	WSW	232.38	**64**
5250 YONGE ST. Toronto ON ***Well ID:*** 7103425	WSW	237.11	**71**
5254 YONGE ST TORONTO ON ***Well ID:*** 7321373	WSW	238.67	**73**
3246 YONGE ST Toronto ON	WSW	241.26	**75**

Well ID: 7111503

5220 YONGE ST ON	WSW	241.53	**76**
Well ID: 7260571			
 ON	SW	244.39	**80**
Well ID: 7243799			



Map: 0.25 Kilometer Radius

Order Number: 22110500001

Address: 37 Norton Avenue, North York, ON

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation

- Freeways; Highways
- Traffic Circle; Ramp
- Major Arterial; Minor Arterial
- Local Road
- Service Road; Traffic Circle; Ramp
- Rail

- Beach
- Airport
- Industrial Area
- Military Base
- Aircraft Roads
- Native Reservation
- Hospital

- Shopping & Sports Area
- University/College
- Cemetery; Golf Course
- Parkt (National)
- Park (City/County)

79°24'W

43°46'30"N

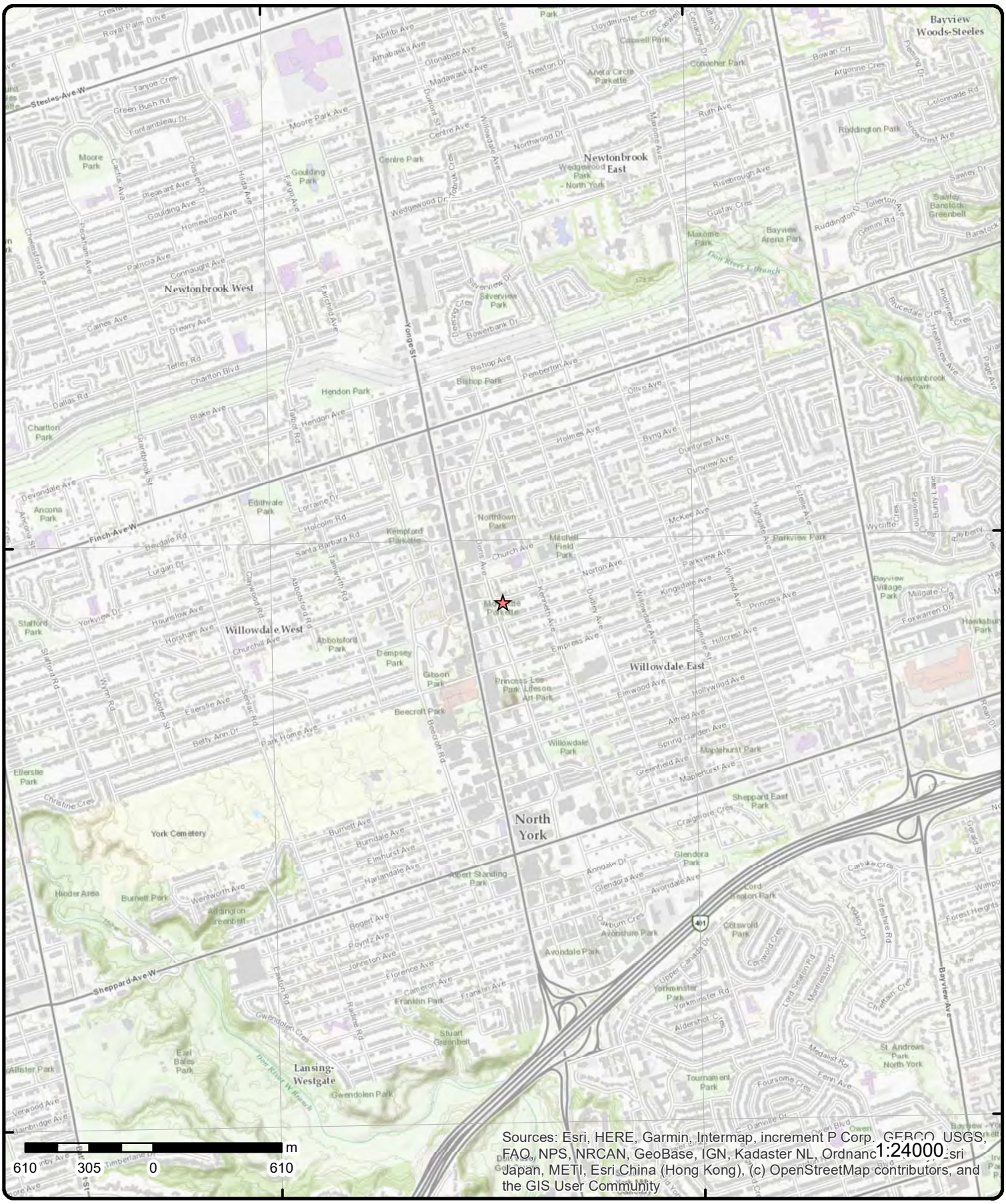
43°46'30"N

Aerial **Year: 2021**

Order Number: 22110500001

Address: 37 Norton Avenue, North York, ON

Source: ESRI World Imagery



Topographic Map

Address: 37 Norton Avenue, ON

Source: ESRI World Topographic Map

Order Number: 22110500001

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	NNE/16.7	179.9 / 0.00	37 Norton Ave North York ON M3	EHS

Order No:	20151111100	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Express Report	**Client Prov/State:**	ON
Report Date:	11-NOV-15	**Search Radius (km):**	.25
Date Received:	11-NOV-15	**X:**	-79.41128
Previous Site Name:		**Y:**	43.772473
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	W/58.6	178.5 / -1.35	NORTH YORK CITY NORTON AVE./DORIS AVE. NORTH YORK CITY ON	CA

Certificate #:	7-0614-93-
Application Year:	93
Issue Date:	7/19/1993
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	1 of 1	SSE/74.6	178.6 / -1.25	46 Parkview Ave North York ON M2N 3Y2	EHS

Order No:	20120731011	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Custom Report	**Client Prov/State:**	ON
Report Date:	10-AUG-12	**Search Radius (km):**	.3
Date Received:	31-JUL-12	**X:**	-79.411001
Previous Site Name:		**Y:**	43.771698
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
4	1 of 1	W/125.1	177.3 / -2.58	22-26 Norton Avenue North York/ Toronto ON M2N 0C6	EHS

Order No:	20090210005	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	2/19/2009	**Search Radius (km):**	0.25
Date Received:	2/10/2009	**X:**	-79.412888
Previous Site Name:		**Y:**	43.772645

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Lot/Building Size:
Additional Info Ordered:

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5 **1 of 2** **NW/126.2** **181.1 / 1.25** **City of Toronto** **ECA**
Intersection of Doris Avenue and McKee Avenue
Toronto ON M2N 5V7

Approval No:	0535-5CDRQA	**MOE District:**	
Approval Date:	2002-07-26	**City:**	
Status:	Approved	**Longitude:**	
Record Type:	ECA	**Latitude:**	
Link Source:	IDS	**Geometry X:**	
SWP Area Name:		**Geometry Y:**	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: City of Toronto
Address: Intersection of Doris Avenue and McKee Avenue
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/9728-5CBSFF-14.pdf
PDF Site Location:

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5 **2 of 2** **NW/126.2** **181.1 / 1.25** **City of Toronto** **ECA**
Intersection of Doris Avenue and McKee Avenue
Toronto ON M2N 5V7

Approval No:	6828-5CDRVL	**MOE District:**	
Approval Date:	2002-07-26	**City:**	
Status:	Approved	**Longitude:**	
Record Type:	ECA	**Latitude:**	
Link Source:	IDS	**Geometry X:**	
SWP Area Name:		**Geometry Y:**	

Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Business Name: City of Toronto
Address: Intersection of Doris Avenue and McKee Avenue
Full Address:
Full PDF Link:
PDF Site Location:

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6 **1 of 1** **W/127.6** **177.9 / -1.98** **Waterdrop Medical Centre** **GEN**
20 Norton Ave
North York ON M2N 0C6

Generator No:	ON3005826	**Status:**	Registered
SIC Code:		**Co Admin:**	
SIC Description:		**Choice of Contact:**	
Approval Years:	As of Mar 2019	**Phone No Admin:**	
PO Box No:		**Contam. Facility:**	
Country:	Canada	**MHSW Facility:**	

Detail(s)

Waste Class: 312 P
Waste Class Desc: Pathological wastes

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7 **1 of 2** **W/131.2** **174.8 / -5.02** **5255 Yonge St., Suite 905** **EHS**
TORONTO ON M2N 5P8

Order No: 21081000956 **Nearest Intersection:**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:	C	**Municipality:**	
Report Type:	Standard Express Report	**Client Prov/State:**	PA
Report Date:	11-AUG-21	**Search Radius (km):**	.25
Date Received:	10-AUG-21	**X:**	-79.4129367
Previous Site Name:		**Y:**	43.7721299
Lot/Building Size:			
Additional Info Ordered:			

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7 | **2 of 2** | **W/131.2** | **174.8 / -5.02** | **5255 Yonge St., Suite 905 TORONTO ON M2N 5P8** | **EHS**

Order No:	21081000956	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Express Report	**Client Prov/State:**	PA
Report Date:	11-AUG-21	**Search Radius (km):**	.25
Date Received:	10-AUG-21	**X:**	-79.4129367
Previous Site Name:		**Y:**	43.7721299
Lot/Building Size:			
Additional Info Ordered:			

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8 | **1 of 1** | **WNW/143.9** | **178.9 / -0.96** | **Bravo Residences Inc. 9 McKee Avenue and 22, 24, 26 Norton Avenue, Toronto, On M2N 0C6 ON** | **RSC**

RSC ID:	96723	**Cert Date:**	1-Nov-10
RA No:		**Cert Prop Use No:**	No CPU
RSC Type:		**Intended Prop Use:**	Residential
Curr Property Use:	Industrial	**Qual Person Name:**	Mr. Marc A. Muzzo
Ministry District:	TORONTO	**Stratified (Y/N):**	
Filing Date:	28-Jan-11	**Audit (Y/N):**	
Date Ack:		**Entire Leg Prop. (Y/N):**	No
Date Returned:		**Accuracy Estimate:**	6 to 10 meters
Restoration Type:		**Telephone:**	905-3264000
Soil Type:		**Fax:**	905-3264002
Criteria:		**Email:**	mmuzzo@marel.to
CPU Issued Sect 1686:	No		

Asmt Roll No: 1908093-14000400, 1908093-14001100, 1908093-14001200
Prop ID No (PIN): All of 10082-0037(LT), All of 10082-0512 (LT), Part of PIN 10082-0514 (LT).
Property Municipal Address: 9 McKee Avenue and 22, 24, 26 Norton Avenue, Toronto, On M2N 0C6
Mailing Address: 50 Confederation Parkway, Concord, On L4K 4T8
Latitude & Latitude: 43.77278550N 79.41298260W (converted from UTM)
UTM Coordinates: NAD83 17-627723-4847861
Consultant:
Legal Desc: ENTIRE LEGAL DESCRIPTION: Lots 39 and 40 on Registered Plan 2400,Toronto (N York), City of Toronto; All of Lots 36, 37 and 38 and part of Lots 19, 20 and 21, on Registered Plan 2400 designated as Part 2 on Reference Plan 66R-24126, North York, TWP of York/North York City of Toronto; All of Lots 34 and 35 and part of Lots 22, 23, 24 and 25, all on Registerd Plan 2400 and designated as Part 5 and Part 6 on Reference Plan 66R-24126, North York, Toronto (N York) City of Toronto. RSC LEGAL DESCRIPTION: All of Lots 39 and 40 on Registered Plan 2400 designated as Part 1 on Reference Plan 66R-24126, Being all of PIN 10082-0037(LT); All of Lots 36, 37 and 38 and part of Lots 19, 20 and 21, all on Registered Plan 2400 designated as Part 2 on Reference Plan 66R-24126, Being all of PIN 10082-0512 (LT); All of Lot 35 and part of Lots 22, 23, 24, 25 and 34, all on Registerd Plan 2400 and designated as Part 5 on Reference Plan 66R-24126, Being part of PIN 10082-0514 (LT).
Measurement Method: Digitized from a satellite image
Applicable Standards: Full Depth Site Conditions Standard, with Nonpotable Ground Water, Coarse Textured Soil, for Residential/Parkland/Institutional property use
RSC PDF:

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9 | **1 of 17** | **W/146.4** | **174.3 / -5.52** | **MediaEdge Communications Inc. 5255 Yonge St Suite 1000 Toronto ON M2N 6P4** | **SCT**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Established: 1989
Plant Size (ft²):
Employment: 30

--Details--
Description: Periodical Publishers
SIC/NAICS Code: 511120

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	2 of 17	W/146.4	174.3 / -5.52	MediaEdge Communications Inc. 5255 Yonge St Suite 1000 Toronto ON M2N 6P4	SCT

Established: 01-JUN-96
Plant Size (ft²):
Employment:

--Details--
Description: Periodical Publishers
SIC/NAICS Code: 511120

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	3 of 17	W/146.4	174.3 / -5.52	5255 Yonge St. Toronto ON M2N 6P4	EHS

Order No: 20060529023
Status: C
Report Type: Site Report
Report Date: 5/31/2006
Date Received: 5/29/2006
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.413424
Y: 43.77193

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	4 of 17	W/146.4	174.3 / -5.52	5255 Yonge Street TORONTO ON M2N 6P4	EHS

Order No: 20060713023w
Status: C
Report Type: Online Mapless
Report Date: 7/13/2006
Date Received: 7/13/2006
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: 0
Y: 0

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	5 of 17	W/146.4	174.3 / -5.52	Yonge/Norton (Canada IV) Holdings Limited 5255 Yonge Street Toronto Ontario M2N 6P4 Toronto ON	EBR

EBR Registry No: IA04E0627
Ministry Ref No: 3569-5WNQS6
Notice Type: Instrument Decision
Notice Stage:
Notice Date: October 24, 2006
Proposal Date: April 13, 2004
Year: 2004

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Instrument Type: (EPA s. 9) - Approval for discharge into the natural environment other than water (i.e. Air)
Off Instrument Name:
Posted By:
Company Name: Yonge/Norton (Canada IV) Holdings Limited
Site Address:
Location Other:
Proponent Name:
Proponent Address: 2 Carlton St. , 909, Toronto Ontario, M5B 1J3
Comment Period:
URL:

Site Location Details:

5255 Yonge Street Toronto Ontario M2N 6P4 Toronto

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9 | ***6 of 17*** | ***W/146.4*** | ***174.3 / -5.52*** | ***Atlas Cold Storage*** ***5255 Younge Street, Suite 900*** ***Nroth York ON*** | ***GEN***

Generator No: ON5754350
SIC Code: 493120
SIC Description: Refrigerated Warehousing and Storage
Approval Years: 06
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

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9 | ***7 of 17*** | ***W/146.4*** | ***174.3 / -5.52*** | ***Yonge/Norton (Canada IV) Holdings Limited*** ***5255 Yonge Street*** ***Toronto ON*** | ***CA***

Certificate #: 7342-678L79
Application Year: 2004
Issue Date: 12/10/2004
Approval Type: Air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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9 | ***8 of 17*** | ***W/146.4*** | ***174.3 / -5.52*** | ***Sherwood Digital Copy & Print*** ***5255 Yonge St Suite 105*** ***North York ON M2N 6P4*** | ***SCT***

Established: 01-NOV-95
Plant Size (ft²):
Employment:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

--Details--
Description: Business Service Centres
SIC/NAICS Code: 561430

Description: Digital Printing
SIC/NAICS Code: 323115

Description: Document Preparation Services
SIC/NAICS Code: 561410

Description: Business Service Centres
SIC/NAICS Code: 561430

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9 | ***9 of 17*** | ***W/146.4*** | ***174.3 / -5.52*** | ***Foster's Wine Estates Canada***
5255 Yonge St Suite 1111
North York ON M2N 6P4 | ***SCT***

Established: 01-JAN-05
Plant Size (ft²):
Employment:

--Details--
Description: Alcoholic Beverage Wholesaler-Distributors
SIC/NAICS Code: 413220

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9 | ***10 of 17*** | ***W/146.4*** | ***174.3 / -5.52*** | ***Yonge/Norton (Canada IV) Holdings Limited***
5255 Yonge Street
Toronto ON M5B 1J3 | ***ECA***

Approval No:	7342-678L79	***MOE District:***	Metro Toronto
Approval Date:	2004-12-10	***City:***	
Status:	Approved	***Longitude:***	-79.413025
Record Type:	ECA	***Latitude:***	43.77205
Link Source:	IDS	***Geometry X:***	
SWP Area Name:	Toronto	***Geometry Y:***	

Approval Type: ECA-AIR
Project Type: AIR
Business Name: Yonge/Norton (Canada IV) Holdings Limited
Address: 5255 Yonge Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/3569-5WNQS6-14.pdf
PDF Site Location:

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9 | ***11 of 17*** | ***W/146.4*** | ***174.3 / -5.52*** | ***Nexus Mechanical Group***
5255 Yonge St.
Toronto ON M2N 6P4 | ***GEN***

Generator No:	ON9373023	***Status:***	
SIC Code:	238220	***Co Admin:***	
SIC Description:	PLUMBING, HEATING AND AIR-CONDITIONING CONTRACTORS	***Choice of Contact:***	CO_OFFICIAL
Approval Years:	2015	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	No
Country:	Canada	***MHSW Facility:***	No

Detail(s)

Waste Class: 212

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Desc: ALIPHATIC SOLVENTS

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9 | **12 of 17** | **W/146.4** | **174.3 / -5.52** | **Norton Dental**
5255 Yonge Street #107
North York ON M2N6P4 | **GEN**

Generator No: ON6016679
SIC Code: 621210
SIC Description: OFFICES OF DENTISTS
Approval Years: 2016
PO Box No:
Country: Canada

Status:
Co Admin: Fatema Sajadi
Choice of Contact: CO_ADMIN
Phone No Admin: 4162254446 Ext.
Contam. Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

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9 | **13 of 17** | **W/146.4** | **174.3 / -5.52** | **Norton Dental**
5255 Yonge Street #107
North York ON M2N6P4 | **GEN**

Generator No: ON6016679
SIC Code: 621210
SIC Description: OFFICES OF DENTISTS
Approval Years: 2015
PO Box No:
Country: Canada

Status:
Co Admin: Fatema Sajadi
Choice of Contact: CO_ADMIN
Phone No Admin: 4162254446 Ext.
Contam. Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

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9 | **14 of 17** | **W/146.4** | **174.3 / -5.52** | **5255 Yonge St**
Toronto ON M2N6P4 | **EHS**

Order No: 20170605160
Status: C
Report Type: Standard Report
Report Date: 09-JUN-17
Date Received: 05-JUN-17
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Fire Insur. Maps and/or Site Plans

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -79.412937
Y: 43.77213

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9 | **15 of 17** | **W/146.4** | **174.3 / -5.52** | **5255 Yonge St**
Toronto ON | **EHS**

Order No: 20170531174
Status: C
Report Type: Waste Disposal Site Report
Report Date: 06-JUN-17
Date Received: 31-MAY-17
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .001
X: -79.413007
Y: 43.77202

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	16 of 17	W/146.4	174.3 / -5.52	5255 Yonge Street North York ON M2N 5P8	EHS

Order No:	21042700079	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	30-APR-21	**Search Radius (km):**	.25
Date Received:	27-APR-21	**X:**	-79.4131215
Previous Site Name:		**Y:**	43.7721024
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	17 of 17	W/146.4	174.3 / -5.52	5255 Yonge Street North York ON M2N 5P8	EHS

Order No:	21042700079	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	30-APR-21	**Search Radius (km):**	.25
Date Received:	27-APR-21	**X:**	-79.4131215
Previous Site Name:		**Y:**	43.7721024
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
10	1 of 1	SW/153.5	170.9 / -8.95	NORTH YORK CITY PARKVIEW/DORIS AVES./YONGE ST. NORTH YORK CITY ON	CA

Certificate #:	3-1113-96-
Application Year:	96
Issue Date:	9/19/1996
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	1 of 1	W/155.4	177.2 / -2.64	5285 YONGE ST Toronto ON	WWIS

Well ID:	7166636	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring and Test Hole	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	
Final Well Status:	Test Hole	**Date Received:**	05-Aug-2011 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z135070	**Contractor:**	7241
Tag:	A115700	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	

Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	NORTH YORK BOROUGH		
Site Info:	WKQ-004015		

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/716\7166636.pdf

Additional Detail(s) (Map)

Well Completed Date:	2011/07/14
Year Completed:	2011
Depth (m):	10.2108
Latitude:	43.7725369165588
Longitude:	-79.4132376945654
Path:	716\7166636.pdf

Bore Hole Information

Bore Hole ID:	1003544742	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627703.00
Code OB Desc:		***North83:***	4847833.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	3
Date Completed:	14-Jul-2011 00:00:00	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	digit
Loc Method Desc:			
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1003886776
Layer:	3
Color:	2
General Color:	GREY
Mat1:	34
Most Common Material:	TILL
Mat2:	26
Mat2 Desc:	ROCK
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	18.0
Formation End Depth:	30.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1003886774
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	01

Mat2 Desc:	FILL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	8.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1003886777
Layer:	4
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	
Mat3 Desc:	
Formation Top Depth:	30.0
Formation End Depth:	33.5
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1003886775
Layer:	2
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Mat2 Desc:	SAND
Mat3:	05
Mat3 Desc:	CLAY
Formation Top Depth:	8.0
Formation End Depth:	18.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003886785
Layer:	1
Plug From:	0.0
Plug To:	1.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003886786
Layer:	2
Plug From:	1.0
Plug To:	22.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003886787
Layer:	3
Plug From:	22.0
Plug To:	33.5
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1003886784
Method Construction Code:	D
Method Construction:	Direct Push
Other Method Construction:	

Pipe Information

Pipe ID:	1003886773
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003886780
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	23.5
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1003886781
Layer:	1
Slot:	10
Screen Top Depth:	23.5
Screen End Depth:	33.5
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.5

Water Details

Water ID:	1003886779
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1003886778
Diameter:	5.75
Depth From:	0.0
Depth To:	23.5
Hole Depth UOM:	ft

Hole Diameter UOM: inch

Links

Bore Hole ID:	1003544742	**Tag No:**	A115700
Depth M:	10.2108	**Contractor:**	7241
Year Completed:	2011	**Path:**	716\7166636.pdf
Well Completed Dt:	2011/07/14	**Latitude:**	43.7725369165588
Audit No:	Z135070	**Longitude:**	-79.4132376945654

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12 **1 of 1** **W/159.0** **177.2 / -2.68** **ON** **WWIS**

Well ID:	7279503	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:		**Data Entry Status:**	Yes
Use 2nd:		**Data Src:**	
Final Well Status:		**Date Received:**	24-Jan-2017 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	C35698	**Contractor:**	7147
Tag:		**Form Version:**	8
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	NORTH YORK BOROUGH		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	
Year Completed:	
Depth (m):	
Latitude:	43.7725106052404
Longitude:	-79.413288091459
Path:	

Bore Hole Information

Bore Hole ID:	1006343470	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	627699.00
Code OB Desc:		**North83:**	4847830.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:		**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			

Supplier Comment:

Links

Bore Hole ID:	1006343470	***Tag No:***	
Depth M:		***Contractor:***	7147
Year Completed:		***Path:***	
Well Completed Dt:		***Latitude:***	43.7725106052404
Audit No:	C35698	***Longitude:***	-79.413288091459

13 ***1 of 1*** ***WNW/160.8*** ***179.0 / -0.89*** ***9 MC KEE AVE TORONTO ON*** ***WWIS***

Well ID:	6929766	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:		***Data Entry Status:***	
Use 2nd:		***Data Src:***	
Final Well Status:	Abandoned-Other	***Date Received:***	10-Jan-2006 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	Yes
Audit No:	Z40522	***Contractor:***	7241
Tag:	A035898	***Form Version:***	3
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	YORK
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	NORTH YORK BOROUGH		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/692\6929766.pdf

Additional Detail(s) (Map)

Well Completed Date:	2005/11/30
Year Completed:	2005
Depth (m):	4.57
Latitude:	43.772833516139
Longitude:	-79.4132000297696
Path:	692\6929766.pdf

Bore Hole Information

Bore Hole ID:	11558566	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627705.40
Code OB Desc:		***North83:***	4847866.00
Open Hole:		***Org CS:***	G83a
Cluster Kind:		***UTMRC:***	3
Date Completed:	30-Nov-2005 00:00:00	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			

Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	933052765
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	3.6600000858306885
Formation End Depth:	4.570000171661377
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933052764
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	1.2200000286102295
Formation End Depth:	3.6600000858306885
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933052763
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	85
Mat3 Desc:	SOFT
Formation Top Depth:	0.0
Formation End Depth:	1.2200000286102295
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	933292697
Layer:	3
Plug From:	2.440000057220459
Plug To:	4.570000171661377
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	933292695
Layer:	1
Plug From:	0.0
Plug To:	0.30000001192092896
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	933292696
Layer:	2
Plug From:	0.30000001192092896
Plug To:	2.440000057220459
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	966929766
Method Construction Code:	B
Method Construction:	Other Method
Other Method Construction:	

Pipe Information

Pipe ID:	11568173
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930878653
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	3.0999999046325684
Casing Diameter:	3.809999942779541
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	933418291
Layer:	1
Slot:	10
Screen Top Depth:	3.0999999046325684
Screen End Depth:	4.570000171661377
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	4.059999942779541

Hole Diameter

Hole ID:	11690710
Diameter:	8.890000343322754

Depth From:	0.0
Depth To:	4.570000171661377
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Links

Bore Hole ID:	11558566	**Tag No:**	A035898
Depth M:	4.57	**Contractor:**	7241
Year Completed:	2005	**Path:**	692\6929766.pdf
Well Completed Dt:	2005/11/30	**Latitude:**	43.772833516139
Audit No:	Z40522	**Longitude:**	-79.4132000297696

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14 ***1 of 1*** ***W/163.6*** ***177.0 / -2.86*** ***ON*** ***BORE***

Borehole ID:	632184	**Inclin FLG:**	No
OGF ID:	215532589	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JUN-1970	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.772537
Total Depth m:	19.7	**Longitude DD:**	-79.413341
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627695
Drill Method:	Power auger	**Northing:**	4847833
Orig Ground Elev m:	176	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	176		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461583	**Mat Consistency:**	Dense
Top Depth:	.9	**Material Moisture:**	
Bottom Depth:	4.4	**Material Texture:**	Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(49), SAND(28)-MEDIUM,CLAYBROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461582	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	.9	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	fill
Gsc Material Description:			
Stratum Description:	FILL,SILT. BROWN.		

Geology Stratum ID:	218461584	**Mat Consistency:**	Dense
Top Depth:	4.4	**Material Moisture:**	

Bottom Depth:	11.6	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(42), SAND(40)-MEDIUM,CLAYGREY,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461589	**Mat Consistency:**	Dense
Top Depth:	18.9	**Material Moisture:**	
Bottom Depth:	19.7	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND(47)-MEDIUM,SILT(36),CLAY. GREY,GLACIAL,VERY DENSE, AGE GLACIAL. 012011023 00 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218461588	**Mat Consistency:**	
Top Depth:	17.7	**Material Moisture:**	
Bottom Depth:	18.9	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND. BROWN,FLUVIO-GLACIAL, AGE GLACIAL.		

Geology Stratum ID:	218461587	**Mat Consistency:**	
Top Depth:	16.5	**Material Moisture:**	
Bottom Depth:	17.7	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND. GREY,FLUVIO-GLACIAL, AGE GLACIAL.		

Geology Stratum ID:	218461585	**Mat Consistency:**	Dense
Top Depth:	11.6	**Material Moisture:**	
Bottom Depth:	12.2	**Material Texture:**	Fine
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Gravel	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND(83)-FINE,GRAVEL(12),SILT(5). BROWN,FLUVIO-GLACIAL, VERY DENSE,AGE GLACIAL.		

Geology Stratum ID:	218461586	**Mat Consistency:**	Dense
Top Depth:	12.2	**Material Moisture:**	
Bottom Depth:	16.5	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(38), SAND(37)-MEDIUM,CLAYGREY,GLACIAL,VERY DENSE, AGE GLACIAL.		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Source

Source Type:	Data Survey	***Source Appl:***	Spatial/Tabular
Source Orig:	Geological Survey of Canada	***Source Iden:***	1
Source Date:	1956-1972	***Scale or Res:***	Varies
Confidence:	H	***Horizontal:***	NAD27
Observatio:		***Verticalda:***	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001240 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	***Horizontal Datum:***	NAD27
Source Type:	Data Survey	***Vertical Datum:***	Mean Average Sea Level
Source Date:	1956-1972	***Projection Name:***	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

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15 ***1 of 1*** ***W/163.7*** ***178.0 / -1.90*** ***5285 YONGE STREET TORONTO ON*** ***WWIS***

Well ID:	7226904	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Monitoring and Test Hole	***Data Entry Status:***	
Use 2nd:	0	***Data Src:***	
Final Well Status:	Observation Wells	***Date Received:***	08-Sep-2014 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	Z193148	***Contractor:***	7241
Tag:	A167838	***Form Version:***	7
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	YORK
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	NORTH YORK BOROUGH		
Site Info:	WKQ-007055 A0-A013		

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	2014/07/11
Year Completed:	2014
Depth (m):	9.144
Latitude:	43.7726191275935
Longitude:	-79.4133224973998
Path:	

Bore Hole Information

Bore Hole ID:	1005117550	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627696.00
Code OB Desc:		***North83:***	4847842.00

Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	3
Date Completed:	11-Jul-2014 00:00:00	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	digit
Loc Method Desc:			
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1005272541
Layer:	3
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Mat2 Desc:	SAND
Mat3:	34
Mat3 Desc:	TILL
Formation Top Depth:	18.0
Formation End Depth:	30.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005272540
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	34
Mat2 Desc:	TILL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	5.0
Formation End Depth:	18.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005272539
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	5.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005272552
Layer:	3
Plug From:	19.0
Plug To:	30.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005272550
Layer:	1
Plug From:	0.0
Plug To:	1.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005272551
Layer:	2
Plug From:	1.0
Plug To:	19.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1005272549
Method Construction Code:	D
Method Construction:	Direct Push
Other Method Construction:	

Pipe Information

Pipe ID:	1005272538
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005272545
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	20.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1005272546
Layer:	1
Slot:	10
Screen Top Depth:	20.0

Screen End Depth:	30.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.25

Water Details

Water ID:	1005272544
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1005272542
Diameter:	10.0
Depth From:	0.0
Depth To:	6.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Hole Diameter

Hole ID:	1005272543
Diameter:	6.0
Depth From:	6.0
Depth To:	30.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1005117550	**Tag No:**	A167838
Depth M:	9.144	**Contractor:**	7241
Year Completed:	2014	**Path:**	722\7226904.pdf
Well Completed Dt:	2014/07/11	**Latitude:**	43.7726191275935
Audit No:	Z193148	**Longitude:**	-79.4133224973998

16 ***1 of 1*** ***W/165.1*** ***178.0 / -1.90*** ***5285 YONGE STREET TORONTO ON*** ***WWIS***

Well ID:	7226903	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring and Test Hole	**Data Entry Status:**	
Use 2nd:	0	**Data Src:**	
Final Well Status:	Test Hole	**Date Received:**	08-Sep-2014 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z193146	**Contractor:**	7241
Tag:	A166897	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	

Municipality: NORTH YORK BOROUGH
Site Info: WKQ-007055 A0-A013

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2014/07/10
Year Completed: 2014
Depth (m): 7.62
Latitude: 43.7726821304694
Longitude: -79.413320831293
Path:

Bore Hole Information

Bore Hole ID: 1005117547
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 10-Jul-2014 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627696.00
North83: 4847849.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1005272496
Layer: 2
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT
Mat2: 34
Mat2 Desc: TILL
Mat3: 12
Mat3 Desc: STONES
Formation Top Depth: 6.0
Formation End Depth: 18.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005272497
Layer: 3
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 28
Mat2 Desc: SAND
Mat3: 12

Mat3 Desc: STONES
Formation Top Depth: 18.0
Formation End Depth: 25.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005272495
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 12
Mat2 Desc: STONES
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 6.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005272506
Layer: 1
Plug From: 0.0
Plug To: 1.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005272508
Layer: 3
Plug From: 14.0
Plug To: 25.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005272507
Layer: 2
Plug From: 1.0
Plug To: 14.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1005272505
Method Construction Code: D
Method Construction: Direct Push
Other Method Construction:

Pipe Information

Pipe ID: 1005272494
Casing No: 0

Comment:
Alt Name:

Construction Record - Casing

Casing ID:	1005272501
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	15.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1005272502
Layer:	1
Slot:	10
Screen Top Depth:	15.0
Screen End Depth:	25.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.25

Water Details

Water ID:	1005272500
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1005272498
Diameter:	8.0
Depth From:	0.0
Depth To:	5.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Hole Diameter

Hole ID:	1005272499
Diameter:	6.0
Depth From:	5.0
Depth To:	25.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1005117547	***Tag No:***	A166897
Depth M:	7.62	***Contractor:***	7241
Year Completed:	2014	***Path:***	722\7226903.pdf
Well Completed Dt:	2014/07/10	***Latitude:***	43.7726821304694
Audit No:	Z193146	***Longitude:***	-79.413320831293

17 1 of 1 WSW/165.7 170.1 / -9.72 ON BORE

Borehole ID:	632181	**Inclin FLG:**	No
OGF ID:	215532586	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JUN-1970	**Municipality:**	
Static Water Level:	1.5	**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.771452
Total Depth m:	18	**Longitude DD:**	-79.412997
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627725
Drill Method:	Power auger	**Northing:**	4847713
Orig Ground Elev m:	175	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	166		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461568	**Mat Consistency:**	Dense
Top Depth:	7.1	**Material Moisture:**	
Bottom Depth:	8.1	**Material Texture:**	Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(76), SAND(23)-MEDIUM, GRAVEL. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461570	**Mat Consistency:**	Hard
Top Depth:	13.7	**Material Moisture:**	
Bottom Depth:	14.3	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	CLAY(54),SILT(46). GREY,FLUVIO-GLACIAL,HARD, VARVED,AGE GLACIAL.		

Geology Stratum ID:	218461572	**Mat Consistency:**	Dense
Top Depth:	17.1	**Material Moisture:**	
Bottom Depth:	18	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL. 015 009 009 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218461566	**Mat Consistency:**	Dense
Top Depth:	2.7	**Material Moisture:**	
Bottom Depth:	5.7	**Material Texture:**	

Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL, WATER STABLE AT 570.0 FEET.		

Geology Stratum ID:	218461567	**Mat Consistency:**	Dense
Top Depth:	5.7	**Material Moisture:**	
Bottom Depth:	7.1	**Material Texture:**	Medium
Material Color:		**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND-MEDIUM. FLUVIO-GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461569	**Mat Consistency:**	Dense
Top Depth:	8.1	**Material Moisture:**	
Bottom Depth:	13.7	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461571	**Mat Consistency:**	Dense
Top Depth:	14.3	**Material Moisture:**	
Bottom Depth:	17.1	**Material Texture:**	Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Gravel	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND(90)-MEDIUM, GRAVEL(10). BROWN,FLUVIO-GLACIAL, VERY DENSE,BEDDED,AGE GLACIAL.		

Geology Stratum ID:	218461565	**Mat Consistency:**	Loose
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	2.7	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	fill
Gsc Material Description:			
Stratum Description:	FILL,SILT. BROWN,LOOSE.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001210 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

18 | **1 of 1** | **W/165.8** | **177.8 / -2.10** | **M.S.A.A. Investments Ltd. & Norton-Yonge Inc.**
5285 Yonge Street
Toronto ON M2N 5R3 | **GEN**

Generator No:	ON8763714	**Status:**	
SIC Code:	811199	**Co Admin:**	Nicole Semper
SIC Description:	ALL OTHER AUTOMOTIVE REPAIR AND MAINTENANCE	**Choice of Contact:**	CO_OFFICIAL
Approval Years:	2014	**Phone No Admin:**	905-614-1978 Ext.
PO Box No:		**Contam. Facility:**	No
Country:	Canada	**MHSW Facility:**	No

Detail(s)

Waste Class:	221
Waste Class Desc:	LIGHT FUELS

19 | **1 of 1** | **W/166.8** | **177.0 / -2.86** | **5285 Yonge Street**
North York ON | **EHS**

Order No:	20140702079	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Custom Report	**Client Prov/State:**	ON
Report Date:	10-JUL-14	**Search Radius (km):**	.25
Date Received:	02-JUL-14	**X:**	-79.413376
Previous Site Name:		**Y:**	43.772562
Lot/Building Size:			
Additional Info Ordered:			

20 | **1 of 1** | **W/167.3** | **178.4 / -1.45** | **ON** | **BORE**

Borehole ID:	632185	**Inclin FLG:**	No
OGF ID:	215532590	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JUL-1970	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.772717
Total Depth m:	14.9	**Longitude DD:**	-79.413336
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627695
Drill Method:	Power auger	**Northing:**	4847853
Orig Ground Elev m:	177	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	177		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461590	***Mat Consistency:***	Loose
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	2.4	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Fill	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:	Sand	***Geologic Period:***	
Material 4:		***Depositional Gen:***	fill
Gsc Material Description:			
Stratum Description:	FILL,SILT,SAND. BROWN,LOOSE.		

Geology Stratum ID:	218461591	***Mat Consistency:***	Dense
Top Depth:	2.4	***Material Moisture:***	
Bottom Depth:	5.2	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461594	***Mat Consistency:***	Dense
Top Depth:	12.6	***Material Moisture:***	
Bottom Depth:	14.9	***Material Texture:***	
Material Color:	Grey	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL. 011 007 009 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218461592	***Mat Consistency:***	Dense
Top Depth:	5.2	***Material Moisture:***	
Bottom Depth:	11.8	***Material Texture:***	Medium
Material Color:	Grey	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Sand	***Geologic Group:***	
Material 3:	Silt	***Geologic Period:***	
Material 4:	Clay	***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND(37)-MEDIUM,SILT(35),CLAY. GREY,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461593	***Mat Consistency:***	Dense
Top Depth:	11.8	***Material Moisture:***	
Bottom Depth:	12.6	***Material Texture:***	Medium
Material Color:	Grey	***Non Geo Mat Type:***	
Material 1:	Sand	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:	Clay	***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	SAND(44)-MEDIUM,SILT(40),CLAY(16). GREY,FLUVIO-GLACIAL, VERY DENSE,LENSES,AGE GLACIAL.		

Source

Source Type:	Data Survey	***Source Appl:***	Spatial/Tabular
Source Orig:	Geological Survey of Canada	***Source Iden:***	1
Source Date:	1956-1972	***Scale or Res:***	Varies
Confidence:	H	***Horizontal:***	NAD27
Observatio:		***Verticalda:***	Mean Average Sea Level

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: TOR1A.txt RecordID: 001250 NTS_Sheet: 30M14D
Confiden 1: Logged by professional. Exact and complete description of material and properties.

Source List

Source Identifier: 1
Source Type: Data Survey
Source Date: 1956-1972
Scale or Resolution: Varies
Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada
Horizontal Datum: NAD27
Vertical Datum: Mean Average Sea Level
Projection Name: Universal Transverse Mercator

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21 | **1 of 1** | **WNW/168.6** | **178.5 / -1.34** | **5285 YONGE ST Toronto ON** | **WWIS**

Well ID: 7166635
Construction Date:
Use 1st: Monitoring and Test Hole
Use 2nd: 0
Final Well Status: Test Hole
Water Type:
Casing Material:
Audit No: Z135069
Tag: A115699
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: NORTH YORK BOROUGH
Site Info: WKQ-004015
Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 05-Aug-2011 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 7241
Form Version: 7
Owner:
County: YORK
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/716\7166635.pdf

Additional Detail(s) (Map)

Well Completed Date: 2011/07/14
Year Completed: 2011
Depth (m): 6.096
Latitude: 43.7727723070491
Longitude: -79.413330871889
Path: 716\7166635.pdf

Bore Hole Information

Bore Hole ID: 1003544740
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 14-Jul-2011 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Elevation:
Elevrc:
Zone: 17
East83: 627695.00
North83: 4847859.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 1003886710
Layer: 3
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 34
Mat2 Desc: TILL
Mat3:
Mat3 Desc:
Formation Top Depth: 17.5
Formation End Depth: 20.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1003886708
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 01
Mat3 Desc: FILL
Formation Top Depth: 0.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1003886709
Layer: 2
Color: 2
General Color: GREY
Mat1: 10
Most Common Material: COARSE SAND
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 17.5
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1003886720
Layer: 2
Plug From: 1.0

Plug To: 9.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1003886721
Layer: 3
Plug From: 9.0
Plug To: 20.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1003886719
Layer: 1
Plug From: 0.0
Plug To: 1.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1003886718
Method Construction Code: D
Method Construction: Direct Push
Other Method Construction:

Pipe Information

Pipe ID: 1003886707
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003886713
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 10.0
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1003886714
Layer: 2
Material:
Open Hole or Material:
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID:	1003886715
Layer:	1
Slot:	10
Screen Top Depth:	10.0
Screen End Depth:	20.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.5

Water Details

Water ID:	1003886712
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1003886711
Diameter:	5.75
Depth From:	0.0
Depth To:	20.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1003544740	***Tag No:***	A115699
Depth M:	6.096	***Contractor:***	7241
Year Completed:	2011	***Path:***	716\7166635.pdf
Well Completed Dt:	2011/07/14	***Latitude:***	43.7727723070491
Audit No:	Z135069	***Longitude:***	-79.413330871889

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22 ***1 of 1*** ***E/169.7*** ***177.8 / -2.05*** ***78 PARKVIEW AVENUE TORONTO ON M2N 3Y2*** ***HINC***

External File Num:	FS INC 0809-05287
Fuel Occurrence Type:	Vapour Release
Date of Occurrence:	9/10/2008
Fuel Type Involved:	Natural Gas
Status Desc:	Completed - Causal Analysis(End)
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	Private Dwelling
Service Interruptions:	Yes
Property Damage:	Yes
Fuel Life Cycle Stage:	Utilization
Root Cause:	Root Cause: Equipment/Material/Component:No Procedures:No Maintenance:No Design:No Training:No Management:No Human Factors:Yes
Reported Details:	
Fuel Category:	Gaseous Fuel
Occurrence Type:	Incident
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	Toronto
Approx. Quant. Rel:	
Nearby body of water:	
Enter Drainage Syst.:	
Approx. Quant. Unit:	

Environmental Impact:

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23 | ***1 of 1*** | ***W/170.3*** | ***177.8 / -2.10*** | ***5285 YONGE STREET TORONTO ON*** | ***WWIS***

Well ID:	7226902	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Monitoring and Test Hole	***Data Entry Status:***	
Use 2nd:	0	***Data Src:***	
Final Well Status:	Test Hole	***Date Received:***	08-Sep-2014 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	Z193145	***Contractor:***	7241
Tag:	A166992	***Form Version:***	7
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	YORK
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	NORTH YORK BOROUGH		
Site Info:	WKQ-007055 A0-013		

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	2014/07/09
Year Completed:	2014
Depth (m):	10.0584
Latitude:	43.7726023340442
Longitude:	-79.4134099184895
Path:	

Bore Hole Information

Bore Hole ID:	1005117544	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627689.00
Code OB Desc:		***North83:***	4847840.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	09-Jul-2014 00:00:00	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1005272466
Layer:	2

Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	5.0
Formation End Depth:	12.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005272465
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	01
Mat3 Desc:	FILL
Formation Top Depth:	0.0
Formation End Depth:	5.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005272468
Layer:	4
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	12
Mat2 Desc:	STONES
Mat3:	34
Mat3 Desc:	TILL
Formation Top Depth:	19.0
Formation End Depth:	33.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005272467
Layer:	3
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	34
Mat2 Desc:	TILL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	12.0
Formation End Depth:	19.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005272479
Layer:	3
Plug From:	22.0
Plug To:	33.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005272477
Layer:	1
Plug From:	0.0
Plug To:	1.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005272478
Layer:	2
Plug From:	1.0
Plug To:	22.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1005272476
Method Construction Code:	D
Method Construction:	Direct Push
Other Method Construction:	

Pipe Information

Pipe ID:	1005272464
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005272472
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	23.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1005272473
Layer:	1
Slot:	10
Screen Top Depth:	23.0

Screen End Depth: 33.0
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.25

Water Details

Water ID: 1005272471
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1005272469
Diameter: 10.0
Depth From: 0.0
Depth To: 5.0
Hole Depth UOM: ft
Hole Diameter UOM: inch

Hole Diameter

Hole ID: 1005272470
Diameter: 8.0
Depth From: 5.0
Depth To: 33.0
Hole Depth UOM: ft
Hole Diameter UOM: inch

Links

Bore Hole ID: 1005117544
Depth M: 10.0584
Year Completed: 2014
Well Completed Dt: 2014/07/09
Audit No: Z193145
Tag No: A166992
Contractor: 7241
Path: 722\7226902.pdf
Latitude: 43.7726023340442
Longitude: -79.4134099184895

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24 | 1 of 3 | N/170.5 | 181.3 / 1.41 | **TORONTO DISTRICT SCHOOL BOARD**
MCKEE P.S. 35 CHURCH AVE
TORONTO ON M2N 6X6 | GEN

Generator No: ON3739723
SIC Code: 611110
SIC Description: ELEMENTARY AND SECONDARY SCHOOLS
Approval Years: 2016
PO Box No:
Country: Canada
Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contam. Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

---

24 | 2 of 3 | N/170.5 | 181.3 / 1.41 | **TORONTO DISTRICT SCHOOL BOARD**
MCKEE P.S. 35 CHURCH AVE | GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				TORONTO ON M2N 6X6	

Generator No: ON3739723
SIC Code: 611110
SIC Description: ELEMENTARY AND SECONDARY SCHOOLS
Approval Years: 2015
PO Box No:
Country: Canada

Status:
Co Admin:
Choice of Contact: CO_OFFICIAL
Phone No Admin:
Contam. Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

---

24 | **3 of 3** | **N/170.5** | **181.3 / 1.41** | **TORONTO DISTRICT SCHOOL BOARD**
MCKEE P.S. 35 CHURCH AVE
TORONTO ON M2N 6X6 | **GEN**

Generator No: ON3739723
SIC Code:
SIC Description:
Approval Years: As of Nov 2021
PO Box No:
Country: Canada

Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Desc: Aliphatic solvents and residues

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25 | **1 of 4** | **WSW/173.8** | **170.1 / -9.71** | **CYBERMEDIX HEALTH SERVICES LTD.**
5225 YONGE ST., TORONTO C/O 6 VANSCO RD.
TORONTO ON M2N 5P8 | **GEN**

Generator No: ON0064814
SIC Code: 8681
SIC Description: MEDICAL LABORATORIES
Approval Years: 86,87,88,89,90
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

---

25 | **2 of 4** | **WSW/173.8** | **170.1 / -9.71** | **CYBERMEDIX (OUT OF BUSINESS)TD. 11-259**
5225 YONGE ST., TORONTO C/O 6 VANSCO RD.
TORONTO ON M2N 5P8 | **GEN**

Generator No: ON0064814
SIC Code: 8681
SIC Description: MEDICAL LABORATORIES
Approval Years: 92,93,95,96,97
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

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25 **3 of 4** **WSW/173.8** **170.1 / -9.71** **CYBERMEDIX HEALTH SERVICES LTD. 11-259 5225 YONGE ST., TORONTO C/O 6 VANSCO RD. TORONTO ON M2N 5P8** **GEN**

Generator No: ON0064814
SIC Code: 8681
SIC Description: MEDICAL LABORATORIES
Approval Years: 94
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

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25 **4 of 4** **WSW/173.8** **170.1 / -9.71** **CYBERMEDIX HEALTH (OUT OF BUSINESS) 5225 YONGE STREET TORONTO ON M2N 5P8** **GEN**

Generator No: ON0064814
SIC Code: 8681
SIC Description: MEDICAL LABORATORIES
Approval Years: 98
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

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26 **1 of 1** **W/174.3** **178.4 / -1.45** **5285 YONGE ST Toronto ON** **WWIS**

Well ID: 7166634
Construction Date:
Use 1st: Monitoring and Test Hole
Use 2nd: 0
Final Well Status: Test Hole
Water Type:
Casing Material:
Audit No: Z135068
Tag: A115698
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: NORTH YORK BOROUGH
Site Info: WKQ-004015

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 05-Aug-2011 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 7241
Form Version: 7
Owner:
County: YORK
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2011/07/14
Year Completed: 2011
Depth (m): 9.144
Latitude: 43.772737512675
Longitude: -79.4134187692041
Path:

Bore Hole Information

Bore Hole ID: 1003544738
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 14-Jul-2011 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627688.00
North83: 4847855.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1003886678
Layer: 2
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 28
Mat2 Desc: SAND
Mat3: 05
Mat3 Desc: CLAY
Formation Top Depth: 8.0
Formation End Depth: 18.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1003886677
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 01
Mat2 Desc: FILL
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID:	1003886679
Layer:	3
Color:	2
General Color:	GREY
Mat1:	34
Most Common Material:	TILL
Mat2:	26
Mat2 Desc:	ROCK
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	18.0
Formation End Depth:	30.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003886689
Layer:	3
Plug From:	19.0
Plug To:	30.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003886688
Layer:	2
Plug From:	1.0
Plug To:	19.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1003886687
Layer:	1
Plug From:	0.0
Plug To:	1.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1003886686
Method Construction Code:	D
Method Construction:	Direct Push
Other Method Construction:	

Pipe Information

Pipe ID:	1003886676
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003886682
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	20.0
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1003886683
Layer:	1
Slot:	10
Screen Top Depth:	20.0
Screen End Depth:	30.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.5

Water Details

Water ID:	1003886681
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1003886680
Diameter:	5.75
Depth From:	0.0
Depth To:	30.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1003544738	**Tag No:**	A115698
Depth M:	9.144	**Contractor:**	7241
Year Completed:	2011	**Path:**	
Well Completed Dt:	2011/07/14	**Latitude:**	43.772737512675
Audit No:	Z135068	**Longitude:**	-79.4134187692041

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27 ***1 of 1*** ***W/180.3*** ***176.5 / -3.35*** ***ON*** ***WWIS***

Well ID:	7236208	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:		**Data Entry Status:**	Yes
Use 2nd:		**Data Src:**	
Final Well Status:		**Date Received:**	21-Jan-2015 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	C18536	**Contractor:**	7383
Tag:	A166902	**Form Version:**	8
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK

Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	NORTH YORK BOROUGH		
Site Info:			

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date:	2014/07/16
Year Completed:	2014
Depth (m):	
Latitude:	43.7725502285814
Longitude:	-79.4135479743371
Path:	

Bore Hole Information

Bore Hole ID:	1005292509	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	627678.00
Code OB Desc:		**North83:**	4847834.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	16-Jul-2014 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Links

Bore Hole ID:	1005292509	**Tag No:**	A166902
Depth M:		**Contractor:**	7383
Year Completed:	2014	**Path:**	
Well Completed Dt:	2014/07/16	**Latitude:**	43.7725502285814
Audit No:	C18536	**Longitude:**	-79.4135479743371

28 **1 of 1** **WNW/181.1** **179.9 / 0.02** **ON** **BORE**

Borehole ID:	632176	**Inclin FLG:**	No
OGF ID:	215532581	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JUN-1970	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.773077
Total Depth m:	24.7	**Longitude DD:**	-79.413327
Depth Ref:	Ground Surface	**UTM Zone:**	17

Depth Elev:		**Easting:**	627695
Drill Method:	Power auger	**Northing:**	4847893
Orig Ground Elev m:	178	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	179		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461535	**Mat Consistency:**	Dense
Top Depth:	8.5	**Material Moisture:**	
Bottom Depth:	9.3	**Material Texture:**	Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND-MEDIUM. BROWN,FLUVIO-GLACIAL, VERY DENSE,AGE GLACIAL.		

Geology Stratum ID:	218461536	**Mat Consistency:**	Dense
Top Depth:	9.3	**Material Moisture:**	
Bottom Depth:	10.1	**Material Texture:**	Coarse
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(60), SAND(40)-MEDIUM TO COARSE. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461533	**Mat Consistency:**	Loose
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.6	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:		**Depositional Gen:**	fill
Gsc Material Description:			
Stratum Description:	FILL,SILT,SAND. BROWN,LOOSE.		

Geology Stratum ID:	218461538	**Mat Consistency:**	Dense
Top Depth:	11.1	**Material Moisture:**	
Bottom Depth:	16.5	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461540	**Mat Consistency:**	Dense
Top Depth:	17.5	**Material Moisture:**	
Bottom Depth:	24.7	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			

Stratum Description: TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL. 014 017 008 **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	218461534	***Mat Consistency:***	Dense
Top Depth:	1.6	***Material Moisture:***	
Bottom Depth:	8.5	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			

Stratum Description: TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.

Geology Stratum ID:	218461537	***Mat Consistency:***	Dense
Top Depth:	10.1	***Material Moisture:***	
Bottom Depth:	11.1	***Material Texture:***	Medium
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Sand	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			

Stratum Description: SAND-MEDIUM. BROWN,FLUVIO-GLACIAL, VERY DENSE,AGE GLACIAL.

Geology Stratum ID:	218461539	***Mat Consistency:***	Dense
Top Depth:	16.5	***Material Moisture:***	
Bottom Depth:	17.5	***Material Texture:***	Medium
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Sand	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			

Stratum Description: SAND-MEDIUM. BROWN,FLUVIO-GLACIAL, VERY DENSE,AGE GLACIAL.

Source

Source Type:	Data Survey	***Source Appl:***	Spatial/Tabular
Source Orig:	Geological Survey of Canada	***Source Iden:***	1
Source Date:	1956-1972	***Scale or Res:***	Varies
Confidence:	H	***Horizontal:***	NAD27
Observatio:		***Verticalda:***	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001160 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	***Horizontal Datum:***	NAD27
Source Type:	Data Survey	***Vertical Datum:***	Mean Average Sea Level
Source Date:	1956-1972	***Projection Name:***	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
29	1 of 1	W/181.4	176.0 / -3.82	5285 Yonge Street Toronto ON M2N 5R3	EHS

Order No:	20110622010	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Standard Report	***Client Prov/State:***	ON
Report Date:	6/30/2011	***Search Radius (km):***	0.25

Date Received:	6/22/2011 10:48:13 AM	**X:**	-79.413576
Previous Site Name:		**Y:**	43.77245
Lot/Building Size:			
Additional Info Ordered:	Topographic Maps		

30 **1 of 1** **W/186.6** **173.8 / -6.07** **ON** **BORE**

Borehole ID:	632183	**Inclin FLG:**	No
OGF ID:	215532588	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JUL-1970	**Municipality:**	
Static Water Level:	0.9	**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.772001
Total Depth m:	10.4	**Longitude DD:**	-79.413603
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627675
Drill Method:	Power auger	**Northing:**	4847773
Orig Ground Elev m:	175	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	175		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461580	**Mat Consistency:**	Dense
Top Depth:	6.6	**Material Moisture:**	
Bottom Depth:	7.8	**Material Texture:**	Fine to Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND-FINE TO MEDIUM.BROWN,FLUVIO-GLACIAL, VERY DENSE,AGE GLACIAL.		

Geology Stratum ID:	218461579	**Mat Consistency:**	Dense
Top Depth:	1.2	**Material Moisture:**	
Bottom Depth:	6.6	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL, WATER STABLE AT 573.5 FEET.		

Geology Stratum ID:	218461581	**Mat Consistency:**	Dense
Top Depth:	7.8	**Material Moisture:**	
Bottom Depth:	10.4	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL. 011 012 007 000400 **Note: Many records provided		

by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	218461578	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.2	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	fill
Gsc Material Description:			
Stratum Description:	FILL,SAND. BROWN.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001230 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

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31 | ***1 of 1*** | ***WSW/187.8*** | ***170.5 / -9.36*** | ***between Florence Avenue and Drewry Avenue Toronto ON*** | ***EHS***

Order No:	20160125075	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Custom Report	**Client Prov/State:**	ON
Report Date:	17-MAR-16	**Search Radius (km):**	.25
Date Received:	25-JAN-16	**X:**	-79.413385
Previous Site Name:		**Y:**	43.771527
Lot/Building Size:			
Additional Info Ordered:			

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32 | ***1 of 1*** | ***W/188.0*** | ***175.2 / -4.66*** | ***UNKNOWN YONGE AND NORTON TORONTO CITY ON*** | ***SPL***

Ref No:	135291	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	12/14/1996	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	UNKNOWN	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	NOT ANTICIPATED	**Site Municipality:**	01106
Nature of Impact:		**Site Lot:**	

Receiving Medium:	LAND	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	WORKS.
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	12/14/1996	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	UNKNOWN	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	SOURCE UNKNOWN-30 LITERS DIESEL FUEL TO ROADWAY, WORKS ATTENDED & CLEANED.		
Contaminant Qty:			

33 **1 of 1** **SW/189.6** **169.8 / -10.09** **ON** **BORE**

Borehole ID:	632186	**Inclin FLG:**	No
OGF ID:	215532591	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	MAY-1965	**Municipality:**	
Static Water Level:	2.1	**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.770907
Total Depth m:	21.5	**Longitude DD:**	-79.412638
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627755
Drill Method:	Power auger	**Northing:**	4847653
Orig Ground Elev m:	174	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	173		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461596	**Mat Consistency:**	Dense
Top Depth:	1.8	**Material Moisture:**	
Bottom Depth:	14.3	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461597	**Mat Consistency:**	Dense
Top Depth:	14.3	**Material Moisture:**	
Bottom Depth:	18	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL, WATER STABLE AT 564.8 FEET.		

Geology Stratum ID:	218461598	**Mat Consistency:**	Hard
Top Depth:	18	**Material Moisture:**	

Bottom Depth:	21.5	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Clay	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			

Stratum Description: TILL,CLAY. BROWN,GLACIAL,HARD, AGE GLACIAL. 010 0006007500470128000340 **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	218461595	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.8	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	fill
Gsc Material Description:			

Stratum Description: FILL,SAND,SILT, GRAVEL.

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level

Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: TOR1A.txt RecordID: 001260 NTS_Sheet: 30M14D
Confiden 1: Logged by professional. Exact and complete description of material and properties.

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		

Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada

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34 | ***1 of 1*** | ***WSW/189.9*** | ***170.9 / -8.90*** | ***ON*** | ***BORE***

Borehole ID:	632182	**Inclin FLG:**	No
OGF ID:	215532587	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JUN-1970	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.771639
Total Depth m:	15.7	**Longitude DD:**	-79.413489
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627685
Drill Method:	Power auger	**Northing:**	4847733
Orig Ground Elev m:	175	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	171		
Concession:			
Location D:			
Survey D:			

Comments:

Borehole Geology Stratum

Geology Stratum ID:	218461576	***Mat Consistency:***	Dense
Top Depth:	7.9	***Material Moisture:***	
Bottom Depth:	15.4	***Material Texture:***	
Material Color:	Grey	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461575	***Mat Consistency:***	Dense
Top Depth:	6.4	***Material Moisture:***	
Bottom Depth:	7.9	***Material Texture:***	Medium
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Sand	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:	Gravel	***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	SAND(56)-MEDIUM,SILT(41),GRAVEL(3). BROWN,FLUVIO-GLACIAL, VERY DENSE,BEDDED,AGE GLACIAL.		

Geology Stratum ID:	218461577	***Mat Consistency:***	
Top Depth:	15.4	***Material Moisture:***	
Bottom Depth:	15.7	***Material Texture:***	Medium
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Sand	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	
Gsc Material Description:			
Stratum Description:	SAND-MEDIUM. BROWN. 010 017 008 000700730021009100260086(46).		

Geology Stratum ID:	218461573	***Mat Consistency:***	
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	2.1	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Fill	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	fill
Gsc Material Description:			
Stratum Description:	FILL,SILT. BROWN.		

Geology Stratum ID:	218461574	***Mat Consistency:***	Dense
Top Depth:	2.1	***Material Moisture:***	
Bottom Depth:	6.4	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Source

Source Type:	Data Survey	***Source Appl:***	Spatial/Tabular
Source Orig:	Geological Survey of Canada	***Source Iden:***	1
Source Date:	1956-1972	***Scale or Res:***	Varies

Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001220 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

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35 | ***1 of 1*** | ***SE/190.3*** | ***176.3 / -3.54*** | ***Enbridge Gas Distribution Inc.***
62 Kingsdale Ave
Toronto ON M2N 3W4 | ***SPL***

Ref No:	0074-8GTQ7J	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	5/13/2011	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge or Emission to Air	**Sector Type:**	Pipeline
Incident Event:		**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	62 Kingsdale Ave
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Toronto
Nature of Impact:	Air Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:		**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	5/13/2011	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Error- Operator error	**Source Type:**	
Site Name:	Residence		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Enbridge, line strike 1.25 service, safe		
Contaminant Qty:	0 other - see incident description		

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36 | ***1 of 1*** | ***SE/190.4*** | ***176.3 / -3.54*** | ***62 Kingsdale Avenue, Toronto ON*** | ***PINC***

Incident Id:	2748150	**Pipe Material:**	Plastic
Incident No:	591592	**Fuel Category:**	Natural Gas
Incident Reported Dt:		**Health Impact:**	
Type:	FS-Pipeline Incident	**Environment Impact:**	
Status Code:	Pipeline Damage Reason Est	**Property Damage:**	Unknown
Tank Status:	RC Established	**Service Interrupt:**	
Task No:	3344750	**Enforce Policy:**	Yes
Spills Action Centre:	0074-8GTQ7J	**Public Relation:**	
Fuel Type:		**Pipeline System:**	
Fuel Occurrence Tp:		**PSIG:**	25
Date of Occurrence:		**Attribute Category:**	FS-Perform P-line Inc Invest
Occurrence Start Dt:	2011/05/13	**Regulator Location:**	Outside
Depth:		**Method Details:**	E-mail
Customer Acct Name:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Incident Address:
Operation Type:
Pipeline Type: Service / Riser Distribution Pipeline
Regulator Type: Service Regulator (up to 60 psi intake)
Summary: 62 Kingsdale Avenue, Toronto - 1 ¼" Pipeline Hit
Reported By: mIKE Mcgivery - Enbridge Gas
Affiliation: Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
Occurrence Desc:
Damage Reason: Excavation practices not sufficient
Notes: damaged 1.25" pe low pressure service with torpedo

37	1 of 1	W/190.4	173.8 / -6.04	Unknown Yonge Street & Ellerslie Ave Toronto ON	SPL

Ref No: 5163-9EEDC2
Site No:
Incident Dt: 2013/12/15
Year:
Incident Cause: Dumping
Incident Event:
Contaminant Code: 15
Contaminant Name: MOTOR OIL
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Not Anticipated
Nature of Impact: Other Impact(s)
Receiving Medium:
Receiving Env:
MOE Response: No Field Response
Dt MOE Arvl on Scn:
MOE Reported Dt: 2013/12/15
Dt Document Closed: 2014/01/03
Incident Reason: Operator/Human Error
Site Name: Roadway<UNOFFICIAL>
Site County/District:
Site Geo Ref Meth:
Incident Summary: Toronto: 5 L of oil to roadway, cleaned
Contaminant Qty: 5 L

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type: Container/Drum/Tote
Agency Involved:
Nearest Watercourse:
Site Address: Yonge Street & Ellerslie Ave
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: Toronto
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class: Land Spills
Source Type:

38	1 of 1	S/194.3	173.6 / -6.21	NORTH YORK CITY KINGSDALE AVE/DORIS AVE. NORTH YORK CITY ON	CA

Certificate #: 7-0920-96-
Application Year: 96
Issue Date: 9/24/1996
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
39	1 of 1	W/195.5	174.3 / -5.55	ON	BORE

Borehole ID:	642658	**Inclin FLG:**	No
OGF ID:	215543052	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JAN-1959	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.772048
Total Depth m:	9.1	**Longitude DD:**	-79.413727
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627665
Drill Method:	Diamond Drill	**Northing:**	4847778
Orig Ground Elev m:	175	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	175		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218500588	**Mat Consistency:**	Dense
Top Depth:	5.8	**Material Moisture:**	
Bottom Depth:	6.7	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND,SILT,CLAY.BROWN,GLACIAL,DENSE, AGE GLACIAL.		

Geology Stratum ID:	218500589	**Mat Consistency:**	Dense
Top Depth:	6.7	**Material Moisture:**	
Bottom Depth:	7.6	**Material Texture:**	Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND-MEDIUM, GRAVEL. BROWN,GLACIAL,DENSE, AGE GLACIAL.		

Geology Stratum ID:	218500590	**Mat Consistency:**	Dense
Top Depth:	7.6	**Material Moisture:**	
Bottom Depth:	9.1	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:	Gravel	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND-MEDIUM, SILT,GRAVEL. GREY,GLACIAL,DENSE, AGE GLACIAL. 014 011 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218500585	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	Wet
Bottom Depth:	.5	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	

Material 2:	Silt	**Geologic Group:**	
Material 3:	Organic	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	organic
Gsc Material Description:			
Stratum Description:	SAND,SILT,ORGANIC, CLAY. GREY,WET,AGE GLACIAL.		

Geology Stratum ID:	218500587	**Mat Consistency:**	Dense
Top Depth:	2.4	**Material Moisture:**	
Bottom Depth:	5.8	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND,SILT. BROWN,GLACIAL,DENSE, AGE GLACIAL.		

Geology Stratum ID:	218500586	**Mat Consistency:**	Compact
Top Depth:	.5	**Material Moisture:**	
Bottom Depth:	2.4	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Clay	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SILT,SAND,CLAY. BROWN,COMPACT,AGE GLACIAL.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	M	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR2.txt RecordID: 106780 NTS_Sheet: 30M14D		
Confiden 1:	Reliable information but incomplete.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
40	1 of 2	SW/195.6	169.8 / -10.01	5203, 5205, 5211, 5213 & 5215 Yonge Street &11 Parkview Avenue, Toronto North York ON M2N 5P7	EHS

Order No:	20200706190	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	RSC Report (Urban)	**Client Prov/State:**	ON
Report Date:	09-JUL-20	**Search Radius (km):**	.3
Date Received:	06-JUL-20	**X:**	-79.4126852
Previous Site Name:		**Y:**	43.77086501
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
40	2 of 2	SW/195.6	169.8 / -10.01	5203, 5205, 5211, 5213 & 5215 Yonge Street &11 Parkview Avenue, Toronto North York ON M2N 5P7	EHS

Order No:	20200706190	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	RSC Report (Urban)	**Client Prov/State:**	ON
Report Date:	09-JUL-20	**Search Radius (km):**	.3
Date Received:	06-JUL-20	**X:**	-79.4126852
Previous Site Name:		**Y:**	43.77086501
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
41	1 of 2	SW/195.7	169.8 / -10.09	5205-5215 Yonge st & 11 Parkview Ave, Toronto North York ON M2N 5P7	EHS

Order No:	20200324056	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	27-MAR-20	**Search Radius (km):**	.25
Date Received:	24-MAR-20	**X:**	-79.4126851
Previous Site Name:		**Y:**	43.7708641
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
41	2 of 2	SW/195.7	169.8 / -10.09	5205-5215 Yonge st & 11 Parkview Ave, Toronto North York ON M2N 5P7	EHS

Order No:	20200324056	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	27-MAR-20	**Search Radius (km):**	.25
Date Received:	24-MAR-20	**X:**	-79.4126851
Previous Site Name:		**Y:**	43.7708641
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
42	1 of 1	W/195.9	176.1 / -3.80	5294 - 5300 Yonge Street Toronto ON	EHS

Order No:	20141201027	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Custom Report	**Client Prov/State:**	ON
Report Date:	04-DEC-14	**Search Radius (km):**	.25
Date Received:	01-DEC-14	**X:**	-79.413757
Previous Site Name:		**Y:**	43.772455
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
43	1 of 1	SW/201.2	169.9 / -9.92	ON	BORE

Borehole ID:	632179	**Inclin FLG:**	No
OGF ID:	215532584	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	SEP-1969	**Municipality:**	
Static Water Level:	1.7	**Lot:**	

Primary Water Use:	Not Used	***Township:***	
Sec. Water Use:		***Latitude DD:***	43.77091
Total Depth m:	16.8	***Longitude DD:***	-79.412887
Depth Ref:	Ground Surface	***UTM Zone:***	17
Depth Elev:		***Easting:***	627735
Drill Method:	Power auger	***Northing:***	4847653
Orig Ground Elev m:	173	***Location Accuracy:***	
Elev Reliabil Note:		***Accuracy:***	Not Applicable
DEM Ground Elev m:	173		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461554	***Mat Consistency:***	Dense
Top Depth:	7.6	***Material Moisture:***	
Bottom Depth:	12.2	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Sand	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL, WATER STABLE AT 564.5 FEET.		

Geology Stratum ID:	218461555	***Mat Consistency:***	Dense
Top Depth:	12.2	***Material Moisture:***	
Bottom Depth:	13.7	***Material Texture:***	Medium
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Sand	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	SAND-MEDIUM. BROWN,FLUVIO-GLACIAL, VERY DENSE,AGE GLACIAL.		

Geology Stratum ID:	218461553	***Mat Consistency:***	Dense
Top Depth:	.1	***Material Moisture:***	
Bottom Depth:	7.6	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461556	***Mat Consistency:***	Dense
Top Depth:	13.7	***Material Moisture:***	
Bottom Depth:	16.8	***Material Texture:***	
Material Color:	Brown	***Non Geo Mat Type:***	
Material 1:	Till	***Geologic Formation:***	
Material 2:	Sand	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	glacial
Gsc Material Description:			
Stratum Description:	TILL,SAND. BROWN,GLACIAL,DENSE, AGE GLACIAL. 010 009 010 0000308800 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218461552	***Mat Consistency:***	
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	.1	***Material Texture:***	
Material Color:		***Non Geo Mat Type:***	

Material 1:	Soil	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	
Gsc Material Description:			
Stratum Description:	SOIL.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001190 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

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44 **1 of 1** **W/203.6** **176.5 / -3.34** **5290 YONGE STREET TORONTO ON** **WWIS**

Well ID:	6930062	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Not Used	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Test Hole	**Date Received:**	05-Apr-2006 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z44333	**Contractor:**	7230
Tag:	A039819	**Form Version:**	3
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	NORTH YORK BOROUGH		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/693\6930062.pdf

Additional Detail(s) (Map)

Well Completed Date:	2006/03/02
Year Completed:	2006
Depth (m):	12.1
Latitude:	43.7725003644555
Longitude:	-79.4138474991016
Path:	693\6930062.pdf

Bore Hole Information

Bore Hole ID:	11558862	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627654.00
Code OB Desc:		***North83:***	4847828.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	3
Date Completed:	02-Mar-2006 00:00:00	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	933049579
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	28
Mat3 Desc:	SAND
Formation Top Depth:	1.5
Formation End Depth:	3.700000047683716
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933049578
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	01
Most Common Material:	FILL
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	1.5
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	933049581
Layer:	4
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28

Mat2 Desc: SAND
Mat3: 11
Mat3 Desc: GRAVEL
Formation Top Depth: 7.599999904632568
Formation End Depth: 12.100000381469727
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 933049580
Layer: 3
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT
Mat2: 28
Mat2 Desc: SAND
Mat3: 11
Mat3 Desc: GRAVEL
Formation Top Depth: 3.700000047683716
Formation End Depth: 7.599999904632568
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933289547
Layer: 1
Plug From: 0.0
Plug To: 0.30000001192092896
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933289548
Layer: 2
Plug From: 0.30000001192092896
Plug To: 8.800000190734863
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 966930062
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 11568469
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930876815
Layer: 1

Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 9.100000381469727
Casing Diameter: 5.0
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 933417883
Layer: 1
Slot: 10
Screen Top Depth: 9.100000381469727
Screen End Depth: 12.100000381469727
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 5.300000190734863

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 996930062
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 3
Water State After Test: OTHER
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing: No

Water Details

Water ID: 934074295
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 7.599999904632568
Water Found Depth UOM: m

Hole Diameter

Hole ID: 11690984
Diameter:
Depth From: 0.0
Depth To: 12.100000381469727
Hole Depth UOM: m
Hole Diameter UOM: cm

Links

Bore Hole ID: 11558862 ***Tag No:*** A039819
Depth M: 12.1 ***Contractor:*** 7230

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Year Completed:	2006	**Path:**	693\6930062.pdf
Well Completed Dt:	2006/03/02	**Latitude:**	43.7725003644555
Audit No:	Z44333	**Longitude:**	-79.4138474991016

45 | **1 of 1** | **ESE/206.3** | **177.0 / -2.85** | **ENBRIDGE GAS INC**
79 PARKVIEW AVE,,TORONTO,ON,M2N 3Y3,CA
ON | **PINC**

Incident Id:		**Pipe Material:**	
Incident No:	2938680	**Fuel Category:**	
Incident Reported Dt:	10/6/2020	**Health Impact:**	
Type:	FS-Pipeline Incident	**Environment Impact:**	
Status Code:		**Property Damage:**	
Tank Status:	Pipeline Damage Reason Est	**Service Interrupt:**	
Task No:		**Enforce Policy:**	
Spills Action Centre:		**Public Relation:**	
Fuel Type:		**Pipeline System:**	
Fuel Occurrence Tp:		**PSIG:**	
Date of Occurrence:		**Attribute Category:**	
Occurrence Start Dt:		**Regulator Location:**	
Depth:		**Method Details:**	
Customer Acct Name:	ENBRIDGE GAS INC		
Incident Address:	79 PARKVIEW AVE,,TORONTO,ON,M2N 3Y3,CA		
Operation Type:			
Pipeline Type:			
Regulator Type:			
Summary:			
Reported By:			
Affiliation:			
Occurrence Desc:			
Damage Reason:			
Notes:			

46 | **1 of 1** | **SW/207.7** | **169.9 / -10.00** | **5215 Yonge St**
Toronto ON M2N5P7 | **EHS**

Order No:	20170228088	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	RSC Report (Urban)	**Client Prov/State:**	ON
Report Date:	06-MAR-17	**Search Radius (km):**	.3
Date Received:	28-FEB-17	**X:**	-79.412609
Previous Site Name:		**Y:**	43.770703
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerial Photos		

47 | **1 of 2** | **SSE/210.5** | **174.7 / -5.10** | **Enbridge Gas Distribution Inc.**
41 Kingsdale Ave.
Toronto ON M2N 3W3 | **SPL**

Ref No:	2062-7TAUAA	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge or Emission to Air	**Sector Type:**	Other
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Toronto

Nature of Impact:	Air Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:	No Field Response	**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	6/23/2009	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Other - Reason not otherwise defined	**Source Type:**	
Site Name:	41 Kingsdale Ave.<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Private Home/TSSA-1 Inch Gas line damaged.		
Contaminant Qty:			

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47 | ***2 of 2*** | ***SSE/210.5*** | ***174.7 / -5.10*** | ***41 KINGSDALE AVENUE TORONTO ON M2N 3W3*** | ***HINC***

External File Num:	FS INC 0906-03504
Fuel Occurrence Type:	
Date of Occurrence:	
Fuel Type Involved:	
Status Desc:	Pending Level 1 Occurrence Investigation
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	
Service Interruptions:	
Property Damage:	
Fuel Life Cycle Stage:	
Root Cause:	
Reported Details:	
Fuel Category:	Gaseous Fuel
Occurrence Type:	Incident
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	Toronto
Approx. Quant. Rel:	
Nearby body of water:	
Enter Drainage Syst.:	
Approx. Quant. Unit:	
Environmental Impact:	

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48 | ***1 of 1*** | ***WNW/212.0*** | ***179.6 / -0.24*** | ***Back of St. Louis Bar & Grill at 5309 Yonge St then on Church St & Doris St.<UNOFFICIAL> Toronto ON M2N 5R4*** | ***SPL***

Ref No:	6467-868VWS	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Discharges	**Sector Type:**	Other
Incident Event:		**Agency Involved:**	
Contaminant Code:	16	**Nearest Watercourse:**	
Contaminant Name:	COOKING OIL	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	6/8/2010	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Land Spills

Incident Reason:	Negligence (Apparent) - Caused by lack of diligence	**Source Type:**	
Site Name:	Back of St. Louis Bar & Grill at 5309 Yonge St then on Church St & Doris St.<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	St. Louis Bar & Grill-20 L Cooking oil to C.B./Ground.		
Contaminant Qty:	20 L		

49 | ***1 of 1*** | ***WSW/214.2*** | ***169.9 / -9.99*** | ***ON*** | ***BORE***

Borehole ID:	632180	**Inclin FLG:**	No
OGF ID:	215532585	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	AUG-1970	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.771097
Total Depth m:	24.1	**Longitude DD:**	-79.413379
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627695
Drill Method:	Power auger	**Northing:**	4847673
Orig Ground Elev m:	175	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	172		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461560	**Mat Consistency:**	Dense
Top Depth:	4.3	**Material Moisture:**	
Bottom Depth:	7.6	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Clay	**Geologic Period:**	
Material 4:	Sand	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(66), CLAY(33),SAND-MEDIUMGREY,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461559	**Mat Consistency:**	Dense
Top Depth:	3.7	**Material Moisture:**	
Bottom Depth:	4.3	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.		

Geology Stratum ID:	218461561	**Mat Consistency:**	Dense
Top Depth:	7.6	**Material Moisture:**	
Bottom Depth:	9.8	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Clay	**Geologic Group:**	
Material 3:		**Geologic Period:**	

Material 4: ***Depositional Gen:*** glacial
Gsc Material Description:
Stratum Description: SILT,CLAY. BROWN,FLUVIO-GLACIAL, VERY DENSE,BEDDED,AGE GLACIAL.

Geology Stratum ID: 218461557 ***Mat Consistency:***
Top Depth: 0 ***Material Moisture:***
Bottom Depth: .6 ***Material Texture:***
Material Color: Brown ***Non Geo Mat Type:***
Material 1: Fill ***Geologic Formation:***
Material 2: Silt ***Geologic Group:***
Material 3: ***Geologic Period:***
Material 4: ***Depositional Gen:*** fill
Gsc Material Description:
Stratum Description: FILL,SILT. BROWN.

Geology Stratum ID: 218461564 ***Mat Consistency:***
Top Depth: 21 ***Material Moisture:***
Bottom Depth: 24.1 ***Material Texture:***
Material Color: Grey ***Non Geo Mat Type:***
Material 1: Till ***Geologic Formation:***
Material 2: Silt ***Geologic Group:***
Material 3: ***Geologic Period:***
Material 4: ***Depositional Gen:*** glacial
Gsc Material Description:
Stratum Description: TILL,SILT. GREY,GLACIAL,AGE GLACIAL. 015 010 018 010 **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID: 218461562 ***Mat Consistency:*** Dense
Top Depth: 9.8 ***Material Moisture:***
Bottom Depth: 17.1 ***Material Texture:*** Medium
Material Color: Grey ***Non Geo Mat Type:***
Material 1: Till ***Geologic Formation:***
Material 2: Sand ***Geologic Group:***
Material 3: Silt ***Geologic Period:***
Material 4: Clay ***Depositional Gen:*** glacial
Gsc Material Description:
Stratum Description: TILL,SAND(60)-MEDIUM,SILT(26),CLAY. GREY,GLACIAL,VERY DENSE, AGE GLACIAL.

Geology Stratum ID: 218461558 ***Mat Consistency:*** Compact
Top Depth: .6 ***Material Moisture:***
Bottom Depth: 3.7 ***Material Texture:***
Material Color: Brown ***Non Geo Mat Type:***
Material 1: Till ***Geologic Formation:***
Material 2: Silt ***Geologic Group:***
Material 3: ***Geologic Period:***
Material 4: ***Depositional Gen:*** glacial
Gsc Material Description:
Stratum Description: TILL,SILT. BROWN,GLACIAL,COMPACT, AGE GLACIAL.

Geology Stratum ID: 218461563 ***Mat Consistency:*** Dense
Top Depth: 17.1 ***Material Moisture:***
Bottom Depth: 21 ***Material Texture:*** Fine to Medium
Material Color: Brown ***Non Geo Mat Type:***
Material 1: Sand ***Geologic Formation:***
Material 2: Gravel ***Geologic Group:***
Material 3: ***Geologic Period:***
Material 4: ***Depositional Gen:*** glacial
Gsc Material Description:
Stratum Description: SAND(98)-FINE TO MEDIUM,GRAVEL(2). BROWN,FLUVIO-GLACIAL, VERY DENSE,BEDDED,AGE GLACIAL.

Source

Source Type: Data Survey ***Source Appl:*** Spatial/Tabular
Source Orig: Geological Survey of Canada ***Source Iden:*** 1
Source Date: 1956-1972 ***Scale or Res:*** Varies

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Confidence: H
Observatio:
Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: TOR1A.txt RecordID: 001200 NTS_Sheet: 30M14D
Confiden 1: Logged by professional. Exact and complete description of material and properties.
Horizontal: NAD27
Verticalda: Mean Average Sea Level

Source List

Source Identifier: 1
Source Type: Data Survey
Source Date: 1956-1972
Scale or Resolution: Varies
Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada
Horizontal Datum: NAD27
Vertical Datum: Mean Average Sea Level
Projection Name: Universal Transverse Mercator

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50 *1 of 5* *NNW/215.3* *181.8 / 1.98* ***NORTH YORK CITY***
CHURCH AVE/DORIS AVE.
NORTH YORK CITY ON ***CA***

Certificate #: 3-0483-95-
Application Year: 95
Issue Date: 5/12/1995
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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50 *2 of 5* *NNW/215.3* *181.8 / 1.98* ***NORTH YORK CITY***
CHURCH AVE/DORIS AVE/KENNETH
NORTH YORK CITY ON ***CA***

Certificate #: 7-0357-95-
Application Year: 95
Issue Date: 5/12/1995
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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50 *3 of 5* *NNW/215.3* *181.8 / 1.98* ***TORONTO CITY***
DORIS AVE/CHURCH AVE.
TORONTO ON ***CA***

Certificate #: 3-0961-98-
Application Year: 98
Issue Date: 7/16/1998
Approval Type: Municipal sewage
Status: Approved
Application Type:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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50 | ***4 of 5*** | ***NNW/215.3*** | ***181.8 / 1.98*** | ***TORONTO CITY***
DORIS AVE/CHURCH AVE.
TORONTO ON | ***CA***

Certificate #: 3-0962-98-
Application Year: 98
Issue Date: 7/21/1998
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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50 | ***5 of 5*** | ***NNW/215.3*** | ***181.8 / 1.98*** | ***TORONTO CITY, NORTH YORK DISTRICT***
DORIS AVE./CHURCH AVE.
TORONTO ON | ***CA***

Certificate #: 7-0638-98-
Application Year: 98
Issue Date: 7/9/1998
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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51 | ***1 of 1*** | ***WSW/216.3*** | ***172.1 / -7.72*** | ***CITY OF TORONTO***
5248 YONGE STREET, TORONTO, ON M3C 3A1
Toronto ON | ***RSC***

RSC ID: 225805
RA No:
RSC Type: Phase 1 and 2 RSC
Curr Property Use: Residential
Ministry District: Toronto District Office
Filing Date: 2019/06/21
Date Ack:
Date Returned:
Restoration Type:
Soil Type:
Criteria:
CPU Issued Sect

Cert Date:
Cert Prop Use No:
Intended Prop Use: Residential
Qual Person Name: GERARD VAN ITERSON
Stratified (Y/N):
Audit (Y/N):
Entire Leg Prop. (Y/N):
Accuracy Estimate:
Telephone:
Fax:
Email:

1686:
Asmt Roll No: 1908-07-2-245-02200
Prop ID No (PIN): 10143-0146 (LT)
Property Municipal Address: 5248 YONGE STREET, TORONTO, ON M3C 3A1
Mailing Address:
Latitude & Latitude:
UTM Coordinates:
Consultant:
Legal Desc:
Measurement Method:
Applicable Standards:
RSC PDF: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114538&fileName=BROWNFIELDS-E.pdf

Document(s) Detail

Document Heading: Supporting Documents
Document Name: 5248 Yonge Lawyer Letter.pdf
Document Type: Lawyer's letter consisting of a legal description of the property
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114545&fileName=5248+Yonge+Lawyer+Letter.pdf

Document Heading: Supporting Documents
Document Name: Yonge Owner Agent Authorization.pdf
Document Type: Proof of the owner's authorization
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114541&fileName=Yonge+Owner+Agent+Authorization.pdf

Document Heading: Supporting Documents
Document Name: 5248 Yonge Survey June 2019.pdf
Document Type: A Current plan of Survey
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114542&fileName=5248+Yonge+Survey+June+2019.pdf

Document Heading: Supporting Documents
Document Name: 5248 Yonge APEC Table June 2019.pdf
Document Type: Area(s) of Potential Environmental Concern
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114537&fileName=5248+Yonge+APEC+Table+June+2019.pdf

Document Heading: Supporting Documents
Document Name: 5248 Yonge Transfer.pdf
Document Type: Copy of any deed(s), transfer(s) or other document(s)
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114546&fileName=5248+Yonge+Transfer.pdf

Document Heading: Supporting Documents
Document Name: 5248 Yonge CSM June 2019.pdf
Document Type: Phase 2 Conceptual Site Model
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114536&fileName=5248+Yonge+CSM+June+2019.pdf

Document Heading: Supporting Documents
Document Name: 5248 Yonge Table of Use2.pdf
Document Type: Table of Current and Past Property Use
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114540&fileName=5248+Yonge+Table+of+Use2.pdf

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52 ***1 of 1*** ***WSW/218.0*** ***173.0 / -6.84*** ***G GROUP 5220 YONGE LTD.*** ***EASR***
5220-5254 Yonge
Toronto ON M2N 5P6

Approval No: R-009-4110604460
Status: REGISTERED
Date: 2018-09-26
MOE District: Metro Toronto
Municipality: Toronto
Latitude: 43.77111111

Record Type:	EASR	**Longitude:**	-79.41333333
Link Source:	MOFA	**Geometry X:**	
Project Type:	Water Taking - Construction Dewatering	**Geometry Y:**	
Full Address:			
Approval Type:	EASR-Water Taking - Construction Dewatering		
SWP Area Name:	Toronto		
PDF URL:			
PDF Site Location:			

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53 **1 of 2** **WSW/218.0** **172.6 / -7.29** **G GROUP 5220 YONGE LTD.**
5250 YONGE STREET, TORONTO, ON M2N 5P6
Toronto ON **RSC**

RSC ID:	222584	**Cert Date:**	
RA No:		**Cert Prop Use No:**	
RSC Type:	Phase 1 and 2 RSC	**Intended Prop Use:**	Residential
Curr Property Use:	Commercial	**Qual Person Name:**	GERARD VAN ITERSON
Ministry District:	Toronto District Office	**Stratified (Y/N):**	
Filing Date:	2016/10/28	**Audit (Y/N):**	
Date Ack:		**Entire Leg Prop. (Y/N):**	
Date Returned:		**Accuracy Estimate:**	
Restoration Type:		**Telephone:**	
Soil Type:		**Fax:**	
Criteria:		**Email:**	
CPU Issued Sect 1686:			
Asmt Roll No:	1908072-24502100		
Prop ID No (PIN):	10143-0145 (LT)		
Property Municipal Address:	5250 YONGE STREET, TORONTO, ON M2N 5P6		
Mailing Address:			
Latitude & Latitude:			
UTM Coordinates:			
Consultant:			
Legal Desc:			
Measurement Method:			
Applicable Standards:			
RSC PDF:	https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=71139&fileName=BROWNFIELDS-E.pdf		

Document(s) Detail

Document Heading:	Supporting Documents
Document Name:	5250 Transfer.pdf
Document Type:	Copy of any deed(s), transfer(s) or other document(s)
Document Link:	https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=71144&fileName=5250+Transfer.pdf

Document Heading:	Supporting Documents
Document Name:	5250 APEC Table.pdf
Document Type:	Area(s) of Potential Environmental Concern
Document Link:	https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=71142&fileName=5250+APEC+Table.pdf

Document Heading:	Supporting Documents
Document Name:	5250 Property Use.pdf
Document Type:	Table of Current and Past Property Use
Document Link:	https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=71138&fileName=5250+Property+Use.pdf

Document Heading:	Supporting Documents
Document Name:	PhaseTwo.pdf
Document Type:	Phase 2 Conceptual Site Model
Document Link:	https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?

attachmentId=72107&fileName=PhaseTwo.pdf

Document Heading: Supporting Documents
Document Name: 5250 Lawyer Letter.pdf
Document Type: Lawyer's letter consisting of a legal description of the property
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=71140&fileName=5250+Lawyer+Letter.pdf

Document Heading: Supporting Documents
Document Name: 5250 Cert of Status.pdf
Document Type: Certificate of Status
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=71141&fileName=5250+Cert+of+Status.pdf

Document Heading: Supporting Documents
Document Name: 5250 RSC Survey.pdf
Document Type: A Current plan of Survey
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=71143&fileName=5250+RSC+Survey.pdf

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53 | ***2 of 2*** | ***WSW/218.0*** | ***172.6 / -7.29*** | ***5250 Yonge St. Toronto ON*** | ***SPL***

Ref No:	2145-ANRRJX	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	6/28/2017	***Health/Env Conseq:***	0 - No Impact
Year:		***Client Type:***	
Incident Cause:		***Sector Type:***	Miscellaneous Industrial
Incident Event:	Dumping	***Agency Involved:***	
Contaminant Code:	43	***Nearest Watercourse:***	
Contaminant Name:	SEDIMENT(SUSPENDED SOLIDS/ SAND/ SILT)	***Site Address:***	5250 Yonge St.
Contaminant Limit 1:		***Site District Office:***	Toronto - District
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:	n/a	***Site Region:***	Central
Environment Impact:		***Site Municipality:***	Toronto
Nature of Impact:		***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:	Land	***Northing:***	4847757
MOE Response:		***Easting:***	627674.06
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	6/28/2017	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	Intentional Discharge	***Source Type:***	Water Supply
Site Name:	catch basin<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	City of Toronto: Ukn qty sediment laden storm water to catch basin		
Contaminant Qty:	0 other - see incident description		

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54 | ***1 of 4*** | ***W/218.4*** | ***174.7 / -5.11*** | ***5270-5290 Yonge St Toronto ON M2N 5P9*** | ***EHS***

Order No:	20000814017	***Nearest Intersection:***	Yonge St and Doris Ave
Status:	C	***Municipality:***	Toronto
Report Type:	Complete Report	***Client Prov/State:***	ON
Report Date:	8/23/00	***Search Radius (km):***	0.25
Date Received:	8/15/00	***X:***	-79.413731
Previous Site Name:		***Y:***	43.772113
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
54	2 of 4	W/218.4	174.7 / -5.11	DUCA Community Credit Union Limited 5290 YONGE ST, TORONTO, ON, M2N 5P9 TORONTO ON M2N 5P9	RSC

RSC ID: 25308
RA No:
RSC Type:
Curr Property Use: Commercial
Ministry District: TORONTO
Filing Date: 16-Aug-07
Date Ack:
Date Returned:
Restoration Type:
Soil Type:
Criteria:
CPU Issued Sect 1686: No
Cert Date: 9-Mar-06
Cert Prop Use No: No CPU
Intended Prop Use: Residential
Qual Person Name: Jack Vanderkooy
Stratified (Y/N):
Audit (Y/N):
Entire Leg Prop. (Y/N): Yes
Accuracy Estimate: 2 to 5 meters
Telephone: 416-2238502x253
Fax: 416-2232575
Email: jvanderkooy@duca.com
Asmt Roll No: 19-08-07-2-280-05800-0000-02
Prop ID No (PIN): 10143-0135 (LT)
Property Municipal Address: 5290 YONGE ST, TORONTO, ON, M2N 5P9
Mailing Address: 5290 YONGE ST, TORONTO, ON, M2N 5P9
Latitude & Latitude: 43.77250000N 79.41416670W
UTM Coordinates: NAD83 17-627628-4847827 (converted from Latitude & Longitude)
Consultant:
Legal Desc: PT LT 18-19 CON 1 WYS TWP OF YORK AS IN NY776255; TORONTO (N YORK), CITY OF TORONTO
Measurement Method: Global Positioning System
Applicable Standards: Full Depth Site Conditions Standard, with Nonpotable Ground Water, Medium/Fine Textured Soil, for Residential/Parkland/Institutional property use
RSC PDF:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
54	3 of 4	W/218.4	174.7 / -5.11	Jack Vanderkooy and Cornelis Bijl 5270 Yonge Street, Toronto, Ontario , M2N 5P9 ON	RSC

RSC ID: 25501
RA No:
RSC Type:
Curr Property Use: Commercial
Ministry District: TORONTO
Filing Date: 8-Aug-07
Date Ack:
Date Returned:
Restoration Type:
Soil Type:
Criteria:
CPU Issued Sect 1686: No
Cert Date: 9-Mar-06
Cert Prop Use No: No CPU
Intended Prop Use: Residential
Qual Person Name:
Stratified (Y/N):
Audit (Y/N):
Entire Leg Prop. (Y/N): Yes
Accuracy Estimate: 2 to 5 meters
Telephone: 416-2238502x253
Fax: 416-2232575
Email: jvanderkooy@duca.com
Asmt Roll No: 19-08-07-2-280-05900-0000-05
Prop ID No (PIN): 10143-0134 (LT)
Property Municipal Address: 5270 Yonge Street, Toronto, Ontario , M2N 5P9
Mailing Address: c/o DUCA Community Credit Union Limited, 5290 Yonge Street , Toronto, Ontario , M2N 5P9
Latitude & Latitude: 43.77194440N 79.41416670W
UTM Coordinates: NAD83 17-627629-4847766 (converted from Latitude & Longitude)
Consultant:
Legal Desc: PT LT 18 CON 1 WYS TWP OF YORK AS IN TB811413; S/T NY239721; TORONTO (N YORK), CITY OF TORONTO
Measurement Method: Global Positioning System
Applicable Standards: Full Depth Site Conditions Standard, with Nonpotable Ground Water, Medium/Fine Textured Soil, for Residential/Parkland/Institutional property use
RSC PDF:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
54	4 of 4	W/218.4	174.7 / -5.11	5290 Yonge Street North York ON M2N 5P9	EHS

Order No: 20180924045
Nearest Intersection:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	27-SEP-18	**Search Radius (km):**	.25
Date Received:	24-SEP-18	**X:**	-79.414034
Previous Site Name:		**Y:**	43.772168
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans		

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55 **1 of 3** **WSW/219.2** **172.6 / -7.29** **LOCALMOTION BICYCLE COMPANY INC.** **GEN**
BASEMENT 5252 YONGE STREET
TORONTO ON M2N 5P6

Generator No:	ON0808400	**Status:**	
SIC Code:	6542	**Co Admin:**	
SIC Description:	BICYCLE SHOPS	**Choice of Contact:**	
Approval Years:	86,87,88,89,90	**Phone No Admin:**	
PO Box No:		**Contam. Facility:**	
Country:		**MHSW Facility:**	

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES

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55 **2 of 3** **WSW/219.2** **172.6 / -7.29** **LOCALMOTION BICYCLE COMPANY INC. 24-353** **GEN**
BASEMENT 5252 YONGE STREET
TORONTO ON M2N 5P6

Generator No:	ON0808400	**Status:**	
SIC Code:	6542	**Co Admin:**	
SIC Description:	BICYCLE SHOPS	**Choice of Contact:**	
Approval Years:	92,93,94,95,96,97,98	**Phone No Admin:**	
PO Box No:		**Contam. Facility:**	
Country:		**MHSW Facility:**	

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES

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55 **3 of 3** **WSW/219.2** **172.6 / -7.29** **5252 Younge Street** **HINC**
TORONTO ON

External File Num:	FS INC 0702-00923
Fuel Occurrence Type:	CO Release
Date of Occurrence:	3/2/2007
Fuel Type Involved:	Natural Gas
Status Desc:	Completed - Causal Analysis(End)
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	Multi-unit Residential
Service Interruptions:	No
Property Damage:	No
Fuel Life Cycle Stage:	Utilization
Root Cause:	Root Cause: Equipment/Material/Component:No Procedures:No Maintenance:Yes Design:No Training:No Management:No Human Factors:No
Reported Details:	
Fuel Category:	Gaseous Fuel
Occurrence Type:	Near-miss
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	Toronto
Approx. Quant. Rel:	

Nearby body of water:
Enter Drainage Syst.:
Approx. Quant. Unit:
Environmental Impact:

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56 | ***1 of 1*** | ***W/219.8*** | ***177.4 / -2.46*** | ***5300 YONGE ST. NORTH YORK ON*** | ***WWIS***

Well ID:	7293941	***Flowing (Y/N):***	
Construction Date:		***Flow Rate:***	
Use 1st:	Test Hole	***Data Entry Status:***	
Use 2nd:	Monitoring	***Data Src:***	
Final Well Status:	Monitoring and Test Hole	***Date Received:***	01-Sep-2017 00:00:00
Water Type:		***Selected Flag:***	TRUE
Casing Material:		***Abandonment Rec:***	
Audit No:	Z264723	***Contractor:***	7383
Tag:	A226489	***Form Version:***	7
Constructn Method:		***Owner:***	
Elevation (m):		***County:***	YORK
Elevatn Reliabilty:		***Lot:***	
Depth to Bedrock:		***Concession:***	
Well Depth:		***Concession Name:***	
Overburden/Bedrock:		***Easting NAD83:***	
Pump Rate:		***Northing NAD83:***	
Static Water Level:		***Zone:***	
Clear/Cloudy:		***UTM Reliability:***	
Municipality:	NORTH YORK BOROUGH		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/729\7293941.pdf

Additional Detail(s) (Map)

Well Completed Date:	2017/07/11
Year Completed:	2017
Depth (m):	29.5656
Latitude:	43.7727276160825
Longitude:	-79.4140030204652
Path:	729\7293941.pdf

Bore Hole Information

Bore Hole ID:	1006717261	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627641.00
Code OB Desc:		***North83:***	4847853.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	11-Jul-2017 00:00:00	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006773050
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Mat2 Desc:	SILT
Mat3:	11
Mat3 Desc:	GRAVEL
Formation Top Depth:	0.0
Formation End Depth:	97.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006773059
Layer:	2
Plug From:	86.0
Plug To:	97.0
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006773058
Layer:	1
Plug From:	1.0
Plug To:	86.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1006773057
Method Construction Code:	6
Method Construction:	Boring
Other Method Construction:	

Pipe Information

Pipe ID:	1006773049
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1006773053
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	87.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1006773054
Layer:	1
Slot:	10
Screen Top Depth:	87.0
Screen End Depth:	97.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.375

Water Details

Water ID:	1006773052
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1006773051
Diameter:	4.0
Depth From:	0.0
Depth To:	97.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1006717261	**Tag No:**	A226489
Depth M:	29.5656	**Contractor:**	7383
Year Completed:	2017	**Path:**	729\7293941.pdf
Well Completed Dt:	2017/07/11	**Latitude:**	43.7727276160825
Audit No:	Z264723	**Longitude:**	-79.4140030204652

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57 ***1 of 1*** ***W/222.5*** ***175.2 / -4.67*** ***ON*** ***BORE***

Borehole ID:	642660	**Inclin FLG:**	No
OGF ID:	215543054	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	JAN-1959	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.772278
Total Depth m:	6.4	**Longitude DD:**	-79.414093
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627635
Drill Method:	Diamond Drill	**Northing:**	4847803
Orig Ground Elev m:	175	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	175		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218500595	**Mat Consistency:**	Dense
Top Depth:	3.1	**Material Moisture:**	
Bottom Depth:	4.6	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Clay	**Geologic Period:**	
Material 4:	Boulders	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SILT,SAND,CLAY, BOULDERS. BROWN,VERY DENSE,AGE GLACIAL.		

Geology Stratum ID:	218500597	**Mat Consistency:**	Dense
Top Depth:	5.8	**Material Moisture:**	
Bottom Depth:	6.4	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND. BROWN,VERY DENSE,AGE GLACIAL. 013 012 0000001800030019001034000015004 80 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	218500593	**Mat Consistency:**	Compact
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	.9	**Material Texture:**	
Material Color:	Black	**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:	Granuls	**Depositional Gen:**	fill
Gsc Material Description:			
Stratum Description:	FILL,SAND,SILT, CINDERS. BLACK,MAN-MADE,COMPACT, AGE POST-GLACIAL.		

Geology Stratum ID:	218500594	**Mat Consistency:**	Compact
Top Depth:	.9	**Material Moisture:**	
Bottom Depth:	3.1	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	CLAY,SAND,SILT. BROWN,COMPACT,AGE GLACIAL.		

Geology Stratum ID:	218500596	**Mat Consistency:**	Dense
Top Depth:	4.6	**Material Moisture:**	
Bottom Depth:	5.8	**Material Texture:**	Coarse
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Silt	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Clay	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SILT,SAND-MEDIUM TO COARSE,CLAY. BROWN,DENSE,AGE GLACIAL.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	M	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		

Source Details: File: TOR2.txt RecordID: 106800 NTS_Sheet: 30M14D
Confiden 1: Reliable information but incomplete.

Source List

Source Identifier: 1
Source Type: Data Survey
Source Date: 1956-1972
Scale or Resolution: Varies
Source Name: Urban Geology Automated Information System (UGAIS)
Source Originators: Geological Survey of Canada
Horizontal Datum: NAD27
Vertical Datum: Mean Average Sea Level
Projection Name: Universal Transverse Mercator

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58 | **1 of 1** | **WSW/224.1** | **170.6 / -9.25** | **5220 YONGE ST. ON** | **WWIS**

Well ID: 7260570
Construction Date:
Use 1st: Dewatering
Use 2nd:
Final Well Status: Dewatering
Water Type:
Casing Material:
Audit No: Z186019
Tag: A185255
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: NORTH YORK BOROUGH
Site Info: PW3
Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 04-Apr-2016 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1663
Form Version: 7
Owner:
County: YORK
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/726\7260570.pdf

Additional Detail(s) (Map)

Well Completed Date: 2016/01/30
Year Completed: 2016
Depth (m): 21.6408
Latitude: 43.7713194136043
Longitude: -79.4137420425944
Path: 726\7260570.pdf

Bore Hole Information

Bore Hole ID: 1005920515
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 30-Jan-2016 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Elevation:
Elevrc:
Zone: 17
East83: 627665.00
North83: 4847697.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	1005999464
Layer:	4
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	33.0
Formation End Depth:	43.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999469
Layer:	9
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	71.0
Formation End Depth:	71.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999462
Layer:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	28
Mat2 Desc:	SAND
Mat3:	
Mat3 Desc:	
Formation Top Depth:	18.0
Formation End Depth:	26.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999465
Layer:	5
Color:	2
General Color:	GREY

Mat1: 06
Most Common Material: SILT
Mat2: 05
Mat2 Desc: CLAY
Mat3:
Mat3 Desc:
Formation Top Depth: 43.0
Formation End Depth: 53.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005999467
Layer: 7
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 56.0
Formation End Depth: 58.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005999461
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Mat2 Desc: SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 18.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005999463
Layer: 3
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 26.0
Formation End Depth: 33.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID:	1005999468
Layer:	8
Color:	2
General Color:	GREY
Mat1:	08
Most Common Material:	FINE SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	58.0
Formation End Depth:	71.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999466
Layer:	6
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	28
Mat2 Desc:	SAND
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	53.0
Formation End Depth:	56.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005999485
Layer:	1
Plug From:	0.0
Plug To:	20.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1005999484
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	1005999459
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005999473
Layer:	2
Material:	1

Open Hole or Material: STEEL
Depth From: 59.0
Depth To: 62.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1005999474
Layer: 3
Material: 1
Open Hole or Material: STEEL
Depth From: 71.0
Depth To: 74.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1005999472
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: 0.0
Depth To: 62.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1005999475
Layer: 1
Slot: 12
Screen Top Depth: 62.0
Screen End Depth: 71.0
Screen Material: 8
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 6.0

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1005999460
Pump Set At: 73.0
Static Level: 56.88999938964844
Final Level After Pumping: 71.43000030517578
Recommended Pump Depth:
Pumping Rate: 3.5
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 0
Pumping Duration HR:
Pumping Duration MIN: 15
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 1005999476
Test Type: Draw Down
Test Duration: 1
Test Level: 62.5099983215332
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005999481
Test Type: Draw Down
Test Duration: 10
Test Level: 68.9800033569336
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005999479
Test Type: Draw Down
Test Duration: 4
Test Level: 65.55999755859375
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005999480
Test Type: Draw Down
Test Duration: 5
Test Level: 66.27999877929688
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005999482
Test Type: Draw Down
Test Duration: 15
Test Level: 71.43000030517578
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005999477
Test Type: Draw Down
Test Duration: 2
Test Level: 63.36000061035156
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 1005999478
Test Type: Draw Down
Test Duration: 3
Test Level: 64.80000305175781
Test Level UOM: ft

Water Details

Water ID: 1005999471
Layer: 1
Kind Code: 8
Kind: Untested
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1005999470
Diameter: 8.5
Depth From: 0.0
Depth To: 62.0
Hole Depth UOM: ft
Hole Diameter UOM: inch

Links

Bore Hole ID: 1005920515
Depth M: 21.6408
Year Completed: 2016
Well Completed Dt: 2016/01/30
Audit No: Z186019
Tag No: A185255
Contractor: 1663
Path: 726\7260570.pdf
Latitude: 43.7713194136043
Longitude: -79.4137420425944

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59 | ***1 of 5*** | ***WNW/226.3*** | ***178.3 / -1.57*** | ***NORTH YORK PRINTING AND GRAPH***
5308 YONGE ST
NORTH YORK ON M2N 5P9 | ***SCT***

Established: 1960
Plant Size (ft²): 1200
Employment: 4

--Details--
Description: COMMERCIAL PRINTING, LITHOGRAPHIC
SIC/NAICS Code: 2752

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59 | ***2 of 5*** | ***WNW/226.3*** | ***178.3 / -1.57*** | ***North York Printing & Graphics***
5308 Yonge St
North York ON M2N 5P9 | ***SCT***

Established: 01-AUG-60
Plant Size (ft²): 1200
Employment:

--Details--
Description: Quick Printing
SIC/NAICS Code: 323114

Description: Other Printing
SIC/NAICS Code: 323119

Description: Digital Printing
SIC/NAICS Code: 323115

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59 | ***3 of 5*** | ***WNW/226.3*** | ***178.3 / -1.57*** | ***North York Printing & Graphics Inc.***
5308 Yonge St
North York ON M2N 5P9 | ***SCT***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Established: 1960
Plant Size (ft²): 1200
Employment: 4

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59 *4 of 5* *WNW/226.3* *178.3 / -1.57*

NORTH YORK PRINTING & GRAPHICS INC.
5308 YONGE STREET
TORONTO ON

GEN

Generator No: ON7229188
SIC Code: 323114
SIC Description: Quick Printing
Approval Years: 2010
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Desc: PHOTOPROCESSING WASTES

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59 *5 of 5* *WNW/226.3* *178.3 / -1.57*

NORTH YORK PRINTING & GRAPHICS INC.
5308 YONGE STREET
TORONTO ON

GEN

Generator No: ON7229188
SIC Code: 323114
SIC Description: Quick Printing
Approval Years: 2011
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Desc: PHOTOPROCESSING WASTES

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60 *1 of 1* *SW/226.3* *169.6 / -10.21*

WAYCOOL UPTOWN/1304509
5203 YONGE STREET
NORTH YORK ON M2N 5P7

GEN

Generator No: ON2377100
SIC Code: 9799
SIC Description: OTHER PERS./HH. SERV.
Approval Years: 98,99,00,01
PO Box No:
Country:

Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

---

61 *1 of 7* *W/226.9* *176.1 / -3.78*

HealthOne Walkin and Medical Clinic Inc
5292 Yonge St
North York ON M2N 5P9

GEN

Generator No: ON7300420
SIC Code: 621110
SIC Description: OFFICES OF PHYSICIANS

Status:
Co Admin: Nitin Panchal
Choice of Contact: CO_OFFICIAL

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Approval Years: 2016
PO Box No:
Country: Canada
Phone No Admin: 416 223 6666 Ext.
Contam. Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

---

61 **2 of 7** **W/226.9** **176.1 / -3.78** **HealthOne Walkin and Medical Clinic Inc** **GEN**
5292 Yonge St
North York ON M2N 5P9

Generator No: ON7300420
SIC Code: 621110
SIC Description: OFFICES OF PHYSICIANS
Approval Years: 2015
PO Box No:
Country: Canada
Status:
Co Admin: Nitin Panchal
Choice of Contact: CO_OFFICIAL
Phone No Admin: 416 223 6666 Ext.
Contam. Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

---

61 **3 of 7** **W/226.9** **176.1 / -3.78** **HealthOne Walkin and Medical Clinic Inc** **GEN**
5292 Yonge St
North York ON M2N 5P9

Generator No: ON7300420
SIC Code: 621110
SIC Description: OFFICES OF PHYSICIANS
Approval Years: 2014
PO Box No:
Country: Canada
Status:
Co Admin: Nitin Panchal
Choice of Contact: CO_OFFICIAL
Phone No Admin: 416 223 6666 Ext.
Contam. Facility: No
MHSW Facility: No

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

---

61 **4 of 7** **W/226.9** **176.1 / -3.78** **HealthOne Walkin and Medical Clinic Inc** **GEN**
5292 Yonge St
North York ON M2N 5P9

Generator No: ON7300420
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Desc: Pathological wastes

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61 **5 of 7** **W/226.9** **176.1 / -3.78** **HealthOne Walkin and Medical Clinic Inc** **GEN**
5292 Yonge St

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

North York ON M2N 5P9

Generator No:	ON7300420	***Status:***	Registered
SIC Code:		***Co Admin:***	
SIC Description:		***Choice of Contact:***	
Approval Years:	As of Jul 2020	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:	Canada	***MHSW Facility:***	

Detail(s)

Waste Class:	312 P
Waste Class Desc:	Pathological wastes

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61 ***6 of 7*** ***W/226.9*** ***176.1 / -3.78*** ***HealthOne Walkin and Medical Clinic Inc*** ***GEN***
5292 Yonge St
North York ON M2N 5P9

Generator No:	ON7300420	***Status:***	Registered
SIC Code:		***Co Admin:***	
SIC Description:		***Choice of Contact:***	
Approval Years:	As of Nov 2021	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:	Canada	***MHSW Facility:***	

Detail(s)

Waste Class:	312 P
Waste Class Desc:	Pathological wastes

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61 ***7 of 7*** ***W/226.9*** ***176.1 / -3.78*** ***HealthOne Walkin and Medical Clinic Inc*** ***GEN***
5292 Yonge St
North York ON M2N 5P9

Generator No:	ON7300420	***Status:***	Registered
SIC Code:		***Co Admin:***	
SIC Description:		***Choice of Contact:***	
Approval Years:	As of Apr 2022	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:	Canada	***MHSW Facility:***	

Detail(s)

Waste Class:	312 P
Waste Class Desc:	PATHOLOGICAL WASTES
Waste Class:	261 A
Waste Class Desc:	PHARMACEUTICALS

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62 ***1 of 1*** ***SW/229.1*** ***169.6 / -10.28*** ***BORE***
ON

Borehole ID:	632178	***Inclin FLG:***	No
OGF ID:	215532583	***SP Status:***	Initial Entry
Status:		***Surv Elev:***	No
Type:	Borehole	***Piezometer:***	No
Use:	Geotechnical/Geological Investigation	***Primary Name:***	
Completion Date:	JUL-1970	***Municipality:***	
Static Water Level:	1.6	***Lot:***	
Primary Water Use:	Not Used	***Township:***	

Sec. Water Use:		**Latitude DD:**	43.770549
Total Depth m:	16.3	**Longitude DD:**	-79.412772
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627745
Drill Method:	Power auger	**Northing:**	4847613
Orig Ground Elev m:	175	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	173		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461549	**Mat Consistency:**	Compact
Top Depth:	8.8	**Material Moisture:**	
Bottom Depth:	10.4	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(44), SAND(28)-MEDIUM,CLAYGREY,GLACIAL,COMPACT,GRADED, AGE GLACIAL.		

Geology Stratum ID:	218461550	**Mat Consistency:**	Dense
Top Depth:	10.4	**Material Moisture:**	
Bottom Depth:	15.7	**Material Texture:**	Fine to Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND-FINE TO MEDIUM.BROWN,FLUVIO-GLACIAL, VERY DENSE,BEDDED,AGE GLACIAL.		

Geology Stratum ID:	218461546	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.7	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	fill
Gsc Material Description:			
Stratum Description:	FILL,SAND. BROWN.		

Geology Stratum ID:	218461548	**Mat Consistency:**	Dense
Top Depth:	4.4	**Material Moisture:**	
Bottom Depth:	8.8	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Sand	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT(47), SAND(26)-MEDIUM,CLAYGREY,GLACIAL,VERY DENSE, GRADED,AGE GLACIAL.		

Geology Stratum ID:	218461547	**Mat Consistency:**	Dense
Top Depth:	1.7	**Material Moisture:**	
Bottom Depth:	4.4	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	

Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL, WATER STABLE AT 569.2 FEET.		

Geology Stratum ID:	218461551	**Mat Consistency:**	Dense
Top Depth:	15.7	**Material Moisture:**	
Bottom Depth:	16.3	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	TILL,SILT. GREY,GLACIAL,VERY DENSE, AGE GLACIAL. 011 012011023 011017021 **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001180 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

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63 | ***1 of 1*** | ***WSW/232.1*** | ***170.5 / -9.35*** | ***5220 YONGE ST Toronto ON*** | ***WWIS***

Well ID:	7275505	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Test Hole	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Observation Wells	**Date Received:**	24-Nov-2016 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z246571	**Contractor:**	1663
Tag:	A213003	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	NORTH YORK BOROUGH		
Site Info:	OW		

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/727\7275505.pdf

Additional Detail(s) (Map)

Well Completed Date:	2016/09/30
Year Completed:	2016
Depth (m):	15.5448
Latitude:	43.7712572727952
Longitude:	-79.4138058104149
Path:	727\7275505.pdf

Bore Hole Information

Bore Hole ID:	1006295834	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627660.00
Code OB Desc:		***North83:***	4847690.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	30-Sep-2016 00:00:00	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006439019
Layer:	4
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	12.0
Formation End Depth:	14.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006439022
Layer:	7
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	
Mat3 Desc:	
Formation Top Depth:	34.0
Formation End Depth:	51.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006439016
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	4.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006439018
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	8.0
Formation End Depth:	12.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006439020
Layer:	5
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	14.0
Formation End Depth:	26.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006439017
Layer:	2
Color:	8
General Color:	BLACK
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	

Mat3 Desc:
Formation Top Depth: 4.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1006439021
Layer: 6
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Mat2 Desc: SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 26.0
Formation End Depth: 34.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006439029
Layer: 1
Plug From: 0.0
Plug To: 35.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006439030
Layer: 2
Plug From: 35.0
Plug To: 48.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1006439028
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 1006439014
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006439025
Layer: 1
Material: 5
Open Hole or Material: PLASTIC

Depth From:	0.0
Depth To:	38.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1006439026
Layer:	1
Slot:	10
Screen Top Depth:	38.0
Screen End Depth:	48.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.5

Results of Well Yield Testing

Pumping Test Method Desc:	
Pump Test ID:	1006439015
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Water Details

Water ID:	1006439024
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1006439023
Diameter:	5.0
Depth From:	0.0
Depth To:	48.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1006295834	***Tag No:***	A213003
Depth M:	15.5448	***Contractor:***	1663
Year Completed:	2016	***Path:***	727\7275505.pdf
Well Completed Dt:	2016/09/30	***Latitude:***	43.7712572727952

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Audit No:	Z246571			**Longitude:**	-79.4138058104149

64 **1 of 1** **WSW/232.4** **170.5 / -9.35** **5220 YONGE ST TORONTO ON** **WWIS**

Well ID:	7275502	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Test Hole	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Test Hole	**Date Received:**	24-Nov-2016 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	Z246568	**Contractor:**	1663
Tag:	A213002	**Form Version:**	7
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	NORTH YORK BOROUGH		
Site Info:	PW5		

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/727\7275502.pdf

Additional Detail(s) (Map)

Well Completed Date:	2016/09/29
Year Completed:	2016
Depth (m):	16.4592
Latitude:	43.7712664456253
Longitude:	-79.413817992933
Path:	727\7275502.pdf

Bore Hole Information

Bore Hole ID:	1006295825	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	627659.00
Code OB Desc:		**North83:**	4847691.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	29-Sep-2016 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006438759
Layer:	1
Color:	6

General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	12.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006438762
Layer:	4
Color:	6
General Color:	BROWN
Mat1:	08
Most Common Material:	FINE SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	29.0
Formation End Depth:	32.5
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006438764
Layer:	6
Color:	2
General Color:	GREY
Mat1:	08
Most Common Material:	FINE SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	37.0
Formation End Depth:	40.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006438760
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	12.0
Formation End Depth:	15.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006438761
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	15.0
Formation End Depth:	29.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006438763
Layer:	5
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	32.5
Formation End Depth:	37.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006438766
Layer:	8
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	84
Mat2 Desc:	SILTY
Mat3:	
Mat3 Desc:	
Formation Top Depth:	48.0
Formation End Depth:	54.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006438765
Layer:	7
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	

Mat3 Desc:
Formation Top Depth: 40.0
Formation End Depth: 48.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006438774
Layer: 1
Plug From: 0.0
Plug To: 35.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006438775
Layer: 2
Plug From: 35.0
Plug To: 51.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1006438773
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 1006438757
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006438770
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From: 48.0
Depth To: 51.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1006438769
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 38.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID:	1006438771
Layer:	1
Slot:	14
Screen Top Depth:	38.0
Screen End Depth:	48.0
Screen Material:	1
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	6.0

Results of Well Yield Testing

Pumping Test Method Desc:	
Pump Test ID:	1006438758
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Water Details

Water ID:	1006438768
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1006438767
Diameter:	8.5
Depth From:	0.0
Depth To:	51.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1006295825	***Tag No:***	A213002
Depth M:	16.4592	***Contractor:***	1663
Year Completed:	2016	***Path:***	727\7275502.pdf
Well Completed Dt:	2016/09/29	***Latitude:***	43.7712664456253
Audit No:	Z246568	***Longitude:***	-79.413817992933

65	***1 of 1***	***W/233.6***	***177.0 / -2.89***	***5300 Yonge Street Toronto ON***	***EHS***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Order No: 20170620150
Status: C
Report Type: Standard Express Report
Report Date: 20-JUN-17
Date Received: 20-JUN-17
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: City Directory

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -79.414205
Y: 43.77261

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66 *1 of 7* *WNW/234.3* *179.3 / -0.57* ***PRINTING HOUSE DEMOGRAPHY*** *SCT*
5318 YONGE ST
NORTH YORK ON M2N 5P9

Established: 1991
Plant Size (ft²): 0
Employment: 4

--Details--
Description: COMMERCIAL PRINTING, LITHOGRAPHIC
SIC/NAICS Code: 2752

Description: COMMERCIAL PRINTING, NOT ELSEWHERE CLASSIFIED
SIC/NAICS Code: 2759

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66 *2 of 7* *WNW/234.3* *179.3 / -0.57* ***PRINTING HOUSE THERMOGRAPHY*** *SCT*
5318 Yonge St
North York ON M2N 5P9

Established: 1991
Plant Size (ft²): 0
Employment: 4

--Details--
Description: Other Printing
SIC/NAICS Code: 323119

---

66 *3 of 7* *WNW/234.3* *179.3 / -0.57* ***TPH The Printing House Limited*** *SCT*
5318 Yonge St
North York ON M2N 5P9

Established: 01-JUN-91
Plant Size (ft²):
Employment:

--Details--
Description: Other Printing
SIC/NAICS Code: 323119

Description: Digital Printing
SIC/NAICS Code: 323115

Description: Digital Printing
SIC/NAICS Code: 323115

Description: Business Service Centres
SIC/NAICS Code: 561430

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
66	4 of 7	WNW/234.3	179.3 / -0.57	PRINTING HOUSE LTD., THE 5318 YONGE STREET NORTH YORK ON M2N 5P9	GEN

Generator No: ON1855500
SIC Code: 2811
SIC Description: BUSINESS FORMS PRINT
Approval Years: 94,95,96,97,98,99,00,01,03
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 264
Waste Class Desc: PHOTOPROCESSING WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
66	5 of 7	WNW/234.3	179.3 / -0.57	PRINTING HOUSE LTD., THE 5318 YONGE STREET NORTH YORK ON M2N 5P9	GEN

Generator No: ON1855500
SIC Code:
SIC Description:
Approval Years: 02
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
66	6 of 7	WNW/234.3	179.3 / -0.57	PRINTING HOUSE LTD., THE 5318 YONGE STREET NORTH YORK ON M2N 5P9	GEN

Generator No: ON1855500
SIC Code:
SIC Description:
Approval Years: 04
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
66	7 of 7	WNW/234.3	179.3 / -0.57	5318 Yonge Street Toronto ON	EHS

Order No: 20140306030
Status: C
Report Type: Standard Report
Report Date: 17-MAR-14
Date Received: 06-MAR-14
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -79.414029
Y: 43.773114

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
67	1 of 1	W/234.6	175.2 / -4.66	1 Canterbury Pl Toronto ON M2N0G7	EHS

Order No: 20160829076
Status: C
Report Type: Standard Report
Report Date: 06-SEP-16
Date Received: 29-AUG-16
Previous Site Name:
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -79.414241
Y: 43.772238

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Lot/Building Size:
Additional Info Ordered:

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68 **1 of 1** **WNW/234.9** **179.9 / 0.06** **ON** **BORE**

Borehole ID:	632194	**Inclin FLG:**	No
OGF ID:	215532599	**SP Status:**	Initial Entry
Status:		**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	MAY-1970	**Municipality:**	
Static Water Level:		**Lot:**	
Primary Water Use:	Not Used	**Township:**	
Sec. Water Use:		**Latitude DD:**	43.773266
Total Depth m:	16.9	**Longitude DD:**	-79.413943
Depth Ref:	Ground Surface	**UTM Zone:**	17
Depth Elev:		**Easting:**	627645
Drill Method:	Power auger	**Northing:**	4847913
Orig Ground Elev m:	179	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Not Applicable
DEM Ground Elev m:	179		
Concession:			
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	218461636	**Mat Consistency:**	Dense
Top Depth:	14.3	**Material Moisture:**	
Bottom Depth:	16.9	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			

Stratum Description: TILL,SAND(42)-MEDIUM,SILT(40),CLAY. GREY,GLACIAL,VERY DENSE, AGE GLACIAL. 012 01100 **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	218461633	**Mat Consistency:**	Dense
Top Depth:	1.4	**Material Moisture:**	
Bottom Depth:	5.3	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			

Stratum Description: TILL,SILT. BROWN,GLACIAL,VERY DENSE, AGE GLACIAL.

Geology Stratum ID:	218461634	**Mat Consistency:**	Dense
Top Depth:	5.3	**Material Moisture:**	
Bottom Depth:	12.8	**Material Texture:**	Medium
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Silt	**Geologic Period:**	
Material 4:	Clay	**Depositional Gen:**	glacial
Gsc Material Description:			

Stratum Description: TILL-MEDIUM,SAND(40),SILT(39),CLAY. GREY,GLACIAL,VERY DENSE, AGE GLACIAL.

Geology Stratum ID:	218461635	**Mat Consistency:**	Dense
Top Depth:	12.8	**Material Moisture:**	
Bottom Depth:	14.3	**Material Texture:**	Medium
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Sand	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial
Gsc Material Description:			
Stratum Description:	SAND-MEDIUM,SILT. BROWN,FLUVIO-GLACIAL, VERY DENSE,AGE GLACIAL.		

Geology Stratum ID:	218461632	**Mat Consistency:**	
Top Depth:	0	**Material Moisture:**	
Bottom Depth:	1.4	**Material Texture:**	
Material Color:	Brown	**Non Geo Mat Type:**	
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Silt	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	fill
Gsc Material Description:			
Stratum Description:	FILL,SILT,GRAVEL. BROWN.		

Source

Source Type:	Data Survey	**Source Appl:**	Spatial/Tabular
Source Orig:	Geological Survey of Canada	**Source Iden:**	1
Source Date:	1956-1972	**Scale or Res:**	Varies
Confidence:	H	**Horizontal:**	NAD27
Observatio:		**Verticalda:**	Mean Average Sea Level
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Details:	File: TOR1A.txt RecordID: 001340 NTS_Sheet: 30M14D		
Confiden 1:	Logged by professional. Exact and complete description of material and properties.		

Source List

Source Identifier:	1	**Horizontal Datum:**	NAD27
Source Type:	Data Survey	**Vertical Datum:**	Mean Average Sea Level
Source Date:	1956-1972	**Projection Name:**	Universal Transverse Mercator
Scale or Resolution:	Varies		
Source Name:	Urban Geology Automated Information System (UGAIS)		
Source Originators:	Geological Survey of Canada		

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69 | ***1 of 1*** | ***WSW/236.0*** | ***170.9 / -8.91*** | ***5220-5254 Yonge Street Toronto ON*** | ***EHS***

Order No:	20140319074	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	RSC Premium Package (Urban)	**Client Prov/State:**	ON
Report Date:	28-MAR-14	**Search Radius (km):**	.3
Date Received:	19-MAR-14	**X:**	-79.41396
Previous Site Name:	Varied	**Y:**	43.771388
Lot/Building Size:	0.8 ha		
Additional Info Ordered:			

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70 | ***1 of 1*** | ***NW/236.9*** | ***180.9 / 1.08*** | ***NORTH YORK CITY CHURCH AVE/YONGE ST/DORIS AVE. NORTH YORK CITY ON*** | ***CA***

Certificate #:	7-0372-97-
Application Year:	97
Issue Date:	5/13/1997
Approval Type:	Municipal water

Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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71 | 1 of 1 | WSW/237.1 | 172.4 / -7.40 | 5250 YONGE ST. Toronto ON | WWIS

Well ID: 7103425
Construction Date:
Use 1st: Monitoring
Use 2nd:
Final Well Status: Test Hole
Water Type:
Casing Material:
Audit No: M01242
Tag: A062391
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: TORONTO CITY
Site Info:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 01-Apr-2008 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 6607
Form Version: 5
Owner:
County: YORK
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/710\7103425.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/02/05
Year Completed: 2008
Depth (m):
Latitude: 43.7716401173888
Longitude: -79.4141435919684
Path: 710\7103425.pdf

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/710\7103425.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/02/05
Year Completed: 2008
Depth (m): 9.1
Latitude: 43.7716061841855
Longitude: -79.4142935897632
Path: 710\7103425.pdf

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/710\7103425.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/02/05

Year Completed: 2008
Depth (m):
Latitude: 43.7717212935123
Longitude: -79.4141538715569
Path: 710\7103425.pdf

Bore Hole Information

Bore Hole ID: 1002670789
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 05-Feb-2008 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627632.00
North83: 4847732.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002670793
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID: 1002670792
Method Construction Code:
Method Construction:
Other Method Construction: BORING

Pipe Information

Pipe ID: 1002670794
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002670796
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 5.900000095367432
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID:	1002670795
Layer:	
Slot:	
Screen Top Depth:	5.900000095367432
Screen End Depth:	8.899999618530273
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pumping Test Method Desc:	
Pump Test ID:	1002670797
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002670791
Diameter:	21.0
Depth From:	
Depth To:	8.899999618530273
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1001560116	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627620.00
Code OB Desc:		***North83:***	4847728.00
Open Hole:	No	***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	3
Date Completed:	05-Feb-2008 00:00:00	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID: 1002670811
Layer: 4
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 7.400000095367432
Formation End Depth: 8.600000381469727
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002670809
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 0.20000000298023224
Formation End Depth: 3.799999952316284
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002670810
Layer: 3
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 3.799999952316284
Formation End Depth: 7.400000095367432
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002670812
Layer: 5
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 8.600000381469727

Formation End Depth: 9.100000381469727
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002670808
Layer: 1
Color: 8
General Color: BLACK
Mat1: 27
Most Common Material: OTHER
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 0.20000000298023224
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002670814
Layer: 1
Plug From: 0.0
Plug To: 0.15000000596046448
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002670816
Layer: 3
Plug From: 0.30000001192092896
Plug To: 6.599999904632568
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002670817
Layer: 4
Plug From: 6.599999904632568
Plug To: 8.899999618530273
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002670815
Layer: 2
Plug From: 0.15000000596046448
Plug To: 0.30000001192092896
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1002670821
Method Construction Code: 6

Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1002670807
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002670818
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 8.899999618530273
Casing Diameter: 5.099999904632568
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002670819
Layer: 1
Slot: 10
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.400000095367432

Hole Diameter

Hole ID: 1002670813
Diameter: 21.0
Depth From: 0.0
Depth To: 8.899999618530273
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002670798
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 05-Feb-2008 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627631.00
North83: 4847741.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID:	1002670802
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	1002670801
Method Construction Code:	
Method Construction:	
Other Method Construction:	BORING

Pipe Information

Pipe ID:	1002670803
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002670805
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	5.900000095367432
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002670804
Layer:	
Slot:	
Screen Top Depth:	5.900000095367432
Screen End Depth:	8.899999618530273
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pumping Test Method Desc:	
Pump Test ID:	1002670806
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	

Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002670800
Diameter: 21.0
Depth From:
Depth To: 8.899999618530273
Hole Depth UOM: m
Hole Diameter UOM: cm

Links

Bore Hole ID: 1001560116
Depth M: 9.1
Year Completed: 2008
Well Completed Dt: 2008/02/05
Audit No: M01242
Tag No: A062391
Contractor: 6607
Path: 710\7103425.pdf
Latitude: 43.7716061841855
Longitude: -79.4142935897632

Links

Bore Hole ID: 1002670789
Depth M:
Year Completed: 2008
Well Completed Dt: 2008/02/05
Audit No: M01242
Tag No: A062391
Contractor: 6607
Path: 710\7103425.pdf
Latitude: 43.7716401173888
Longitude: -79.4141435919684

Links

Bore Hole ID: 1002670798
Depth M:
Year Completed: 2008
Well Completed Dt: 2008/02/05
Audit No: M01242
Tag No: A062391
Contractor: 6607
Path: 710\7103425.pdf
Latitude: 43.7717212935123
Longitude: -79.4141538715569

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72 ***1 of 1*** ***SW/237.1*** ***169.9 / -9.98*** ***SEEGENE CANADA INC***
5200 Yonge St, Unit 200
North York ON M2N 5P6 ***GEN***

Generator No: ON2649901
SIC Code:
SIC Description:
Approval Years: As of Apr 2022
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 312 P
Waste Class Desc: PATHOLOGICAL WASTES

Waste Class: 148 B
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
73	1 of 1	WSW/238.7	172.5 / -7.34	5254 YONGE ST TORONTO ON	WWIS

Well ID: 7321373
Construction Date:
Use 1st: Monitoring
Use 2nd:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z281162
Tag: A244956
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: NORTH YORK BOROUGH
Site Info:

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 23-Oct-2018 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 7615
Form Version: 7
Owner:
County: YORK
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2018/09/30
Year Completed: 2018
Depth (m): 9.144
Latitude: 43.7717034650588
Longitude: -79.4141667678639
Path:

Bore Hole Information

Bore Hole ID: 1007304217
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 30-Sep-2018 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627630.00
North83: 4847739.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1007563915
Layer: 2
Color: 6
General Color: BROWN
Mat1: 06
Most Common Material: SILT

Mat2:	28
Mat2 Desc:	SAND
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	7.0
Formation End Depth:	20.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1007563914
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	01
Most Common Material:	FILL
Mat2:	
Mat2 Desc:	
Mat3:	85
Mat3 Desc:	SOFT
Formation Top Depth:	0.0
Formation End Depth:	7.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1007563916
Layer:	3
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	20.0
Formation End Depth:	25.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1007563917
Layer:	4
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Mat2 Desc:	SAND
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	25.0
Formation End Depth:	30.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1007563924
Layer:	1
Plug From:	1.0
Plug To:	18.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1007563923
Method Construction Code:	E
Method Construction:	Auger
Other Method Construction:	

Pipe Information

Pipe ID:	1007563913
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1007563920
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	-3.0
Depth To:	20.0
Casing Diameter:	2.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1007563921
Layer:	1
Slot:	10
Screen Top Depth:	20.0
Screen End Depth:	30.0
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.0

Water Details

Water ID:	1007563919
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1007563918
Diameter:	6.0
Depth From:	0.0
Depth To:	30.0
Hole Depth UOM:	ft

Hole Diameter UOM: inch

Links

Bore Hole ID:	1007304217	**Tag No:**	A244956
Depth M:	9.144	**Contractor:**	7615
Year Completed:	2018	**Path:**	732\7321373.pdf
Well Completed Dt:	2018/09/30	**Latitude:**	43.7717034650588
Audit No:	Z281162	**Longitude:**	-79.4141667678639

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74 **1 of 1** **SW/241.1** **169.0 / -10.89** **WING GOURMET LIMITED**
5195 YONGE STREET
NORTH YORK CITY ON M2N 5P7 **CA**

Certificate #:	8-3278-96-
Application Year:	96
Issue Date:	6/14/1996
Approval Type:	Industrial air
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	COMMERCIAL KITCHEN EXHAUST HOOD
Contaminants:	Odour/Fumes
Emission Control:	No Controls

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75 **1 of 1** **WSW/241.3** **172.2 / -7.62** **3246 YONGE ST**
Toronto ON **WWIS**

Well ID:	7111503	**Flowing (Y/N):**	
Construction Date:		**Flow Rate:**	
Use 1st:	Monitoring	**Data Entry Status:**	
Use 2nd:		**Data Src:**	
Final Well Status:	Test Hole	**Date Received:**	18-Sep-2008 00:00:00
Water Type:		**Selected Flag:**	TRUE
Casing Material:		**Abandonment Rec:**	
Audit No:	M01227	**Contractor:**	6607
Tag:	A065548	**Form Version:**	5
Constructn Method:		**Owner:**	
Elevation (m):		**County:**	YORK
Elevatn Reliabilty:		**Lot:**	
Depth to Bedrock:		**Concession:**	
Well Depth:		**Concession Name:**	
Overburden/Bedrock:		**Easting NAD83:**	
Pump Rate:		**Northing NAD83:**	
Static Water Level:		**Zone:**	
Clear/Cloudy:		**UTM Reliability:**	
Municipality:	TORONTO CITY		
Site Info:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/711\7111503.pdf

Additional Detail(s) (Map)

Well Completed Date:	2008/01/29
Year Completed:	2008
Depth (m):	
Latitude:	43.7712392353268
Longitude:	-79.4144523873258
Path:	711\7111503.pdf

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/711\7111503.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/01/29
Year Completed: 2008
Depth (m):
Latitude: 43.7714351762648
Longitude: -79.414298109099
Path: 711\7111503.pdf

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/711\7111503.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/01/28
Year Completed: 2008
Depth (m):
Latitude: 43.7714005534527
Longitude: -79.4143984243736
Path: 711\7111503.pdf

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/711\7111503.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/01/28
Year Completed: 2008
Depth (m):
Latitude: 43.7715056282784
Longitude: -79.4141844217125
Path: 711\7111503.pdf

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/711\7111503.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/01/29
Year Completed: 2008
Depth (m):
Latitude: 43.7716314617301
Longitude: -79.4141686709056
Path: 711\7111503.pdf

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/711\7111503.pdf

Additional Detail(s) (Map)

Well Completed Date: 2008/01/28
Year Completed: 2008
Depth (m): 11
Latitude: 43.7715589412637
Longitude: -79.4141333124046
Path: 711\7111503.pdf

Bore Hole Information

Bore Hole ID: 1002671075 ***Elevation:***
DP2BR: ***Elevrc:***
Spatial Status: ***Zone:*** 17

Code OB:		**East83:**	627620.00
Code OB Desc:		**North83:**	4847709.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	3
Date Completed:	29-Jan-2008 00:00:00	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002671079
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	1002671078
Method Construction Code:	
Method Construction:	
Other Method Construction:	BORING

Pipe Information

Pipe ID:	1002671080
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002671082
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7.5
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002671081
Layer:	
Slot:	
Screen Top Depth:	7.5
Screen End Depth:	10.5
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1002671083
Pump Set At:
Static Level: 8.600000381469727
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002671077
Diameter: 31.0
Depth From:
Depth To: 10.5
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002671084
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 29-Jan-2008 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627630.00
North83: 4847731.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002671088
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID: 1002671087
Method Construction Code:

Method Construction:
Other Method Construction: BORING

Pipe Information

Pipe ID: 1002671089
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002671091
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 6.0
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002671090
Layer:
Slot:
Screen Top Depth: 6.0
Screen End Depth: 9.0
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1002671092
Pump Set At:
Static Level: 8.600000381469727
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002671086
Diameter: 31.0
Depth From:
Depth To: 9.0
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID:	1002671048	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	627629.00
Code OB Desc:		***North83:***	4847717.00
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	28-Jan-2008 00:00:00	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Loc Method Desc:	on Water Well Record		
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002671052
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	1002671051
Method Construction Code:	
Method Construction:	
Other Method Construction:	BORING

Pipe Information

Pipe ID:	1002671053
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002671055
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7.199999809265137
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002671054
Layer:	
Slot:	

Screen Top Depth: 7.199999809265137
Screen End Depth: 10.199999809265137
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1002671056
Pump Set At:
Static Level: 8.600000381469727
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002671050
Diameter: 31.0
Depth From:
Depth To: 10.199999809265137
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1001800741
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole: No
Cluster Kind:
Date Completed: 28-Jan-2008 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627633.00
North83: 4847723.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1002671098
Layer: 5
Color: 2
General Color: GREY

Mat1:	06
Most Common Material:	SILT
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	7.0
Formation End Depth:	9.0
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1002671095
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	2.0
Formation End Depth:	2.5
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1002671094
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Mat2 Desc:	SAND
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	0.0
Formation End Depth:	2.0
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1002671097
Layer:	4
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Mat2 Desc:	SAND
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	5.0
Formation End Depth:	7.0
Formation End Depth UOM:	m

Overburden and Bedrock

Materials Interval

Formation ID:	1002671099
Layer:	6
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	05
Mat2 Desc:	CLAY
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	9.0
Formation End Depth:	11.0
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1002671096
Layer:	3
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Mat2 Desc:	SAND
Mat3:	66
Mat3 Desc:	DENSE
Formation Top Depth:	2.5
Formation End Depth:	5.0
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1002671104
Layer:	4
Plug From:	7.0
Plug To:	10.199999809265137
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1002671101
Layer:	1
Plug From:	0.0
Plug To:	0.15000000596046448
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1002671102
Layer:	2
Plug From:	0.15000000596046448
Plug To:	0.30000001192092896
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID: 1002671103
Layer: 3
Plug From: 0.30000001192092896
Plug To: 7.0
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1002671109
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1002671093
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002671106
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0.0
Depth To: 10.199999809265137
Casing Diameter: 5.099999904632568
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002671107
Layer: 1
Slot: 10
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.400000095367432

Water Details

Water ID: 1002671105
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 8.800000190734863
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1002671100
Diameter: 21.0
Depth From: 0.0
Depth To: 10.199999809265137

Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002671057
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 28-Jan-2008 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627612.00
North83: 4847705.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002671061
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID: 1002671060
Method Construction Code:
Method Construction:
Other Method Construction: BORING

Pipe Information

Pipe ID: 1002671062
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002671064
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7.199999809265137
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002671063

Layer:
Slot:
Screen Top Depth: 7.199999809265137
Screen End Depth: 10.199999809265137
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1002671065
Pump Set At:
Static Level: 8.600000381469727
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002671059
Diameter: 31.0
Depth From:
Depth To: 10.199999809265137
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002671066
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 29-Jan-2008 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation:
Elevrc:
Zone: 17
East83: 627608.00
North83: 4847687.00
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002671070
Layer:

Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID: 1002671069
Method Construction Code:
Method Construction:
Other Method Construction: BORING

Pipe Information

Pipe ID: 1002671071
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002671073
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7.5
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002671072
Layer:
Slot:
Screen Top Depth: 7.5
Screen End Depth: 10.5
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pumping Test Method Desc:
Pump Test ID: 1002671074
Pump Set At:
Static Level: 8.600000381469727
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID:	1002671068
Diameter:	31.0
Depth From:	
Depth To:	10.5
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Links

Bore Hole ID:	1002671075	***Tag No:***	A065548
Depth M:		***Contractor:***	6607
Year Completed:	2008	***Path:***	711\7111503.pdf
Well Completed Dt:	2008/01/29	***Latitude:***	43.7714351762648
Audit No:	M01227	***Longitude:***	-79.414298109099

Links

Bore Hole ID:	1001800741	***Tag No:***	A065548
Depth M:	11	***Contractor:***	6607
Year Completed:	2008	***Path:***	711\7111503.pdf
Well Completed Dt:	2008/01/28	***Latitude:***	43.7715589412637
Audit No:	M01227	***Longitude:***	-79.4141333124046

Links

Bore Hole ID:	1002671057	***Tag No:***	A065548
Depth M:		***Contractor:***	6607
Year Completed:	2008	***Path:***	711\7111503.pdf
Well Completed Dt:	2008/01/28	***Latitude:***	43.7714005534527
Audit No:	M01227	***Longitude:***	-79.4143984243736

Links

Bore Hole ID:	1002671066	***Tag No:***	A065548
Depth M:		***Contractor:***	6607
Year Completed:	2008	***Path:***	711\7111503.pdf
Well Completed Dt:	2008/01/29	***Latitude:***	43.7712392353268
Audit No:	M01227	***Longitude:***	-79.4144523873258

Links

Bore Hole ID:	1002671048	***Tag No:***	A065548
Depth M:		***Contractor:***	6607
Year Completed:	2008	***Path:***	711\7111503.pdf
Well Completed Dt:	2008/01/28	***Latitude:***	43.7715056282784
Audit No:	M01227	***Longitude:***	-79.4141844217125

Links

Bore Hole ID:	1002671084	***Tag No:***	A065548
Depth M:		***Contractor:***	6607
Year Completed:	2008	***Path:***	711\7111503.pdf
Well Completed Dt:	2008/01/29	***Latitude:***	43.7716314617301
Audit No:	M01227	***Longitude:***	-79.4141686709056

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
76	1 of 1	WSW/241.5	169.8 / -10.01	5220 YONGE ST ON	WWIS

Well ID: 7260571
Construction Date:
Use 1st: Dewatering
Use 2nd:
Final Well Status: Dewatering
Water Type:
Casing Material:
Audit No: Z186018
Tag: A185262
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: NORTH YORK BOROUGH
Site Info: PW2

Flowing (Y/N):
Flow Rate:
Data Entry Status:
Data Src:
Date Received: 04-Apr-2016 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1663
Form Version: 7
Owner:
County: YORK
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/726\7260571.pdf

Additional Detail(s) (Map)

Well Completed Date: 2016/02/11
Year Completed: 2016
Depth (m): 25.6032
Latitude: 43.7709947089684
Longitude: -79.4137009268345
Path: 726\7260571.pdf

Bore Hole Information

Bore Hole ID: 1005920518
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 11-Feb-2016 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 627669.00
North83: 4847661.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1005999511
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY

Mat2: 28
Mat2 Desc: SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 11.0
Formation End Depth: 28.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005999510
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 11.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005999513
Layer: 4
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Mat2 Desc: SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 39.0
Formation End Depth: 43.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005999516
Layer: 7
Color: 6
General Color: BROWN
Mat1: 08
Most Common Material: FINE SAND
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 63.0
Formation End Depth: 73.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999518
Layer:	9
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	75.0
Formation End Depth:	84.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999514
Layer:	5
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	
Mat3 Desc:	
Formation Top Depth:	43.0
Formation End Depth:	58.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999515
Layer:	6
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	28
Mat2 Desc:	SAND
Mat3:	
Mat3 Desc:	
Formation Top Depth:	58.0
Formation End Depth:	63.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1005999517
Layer:	8
Color:	6
General Color:	BROWN
Mat1:	09
Most Common Material:	MEDIUM SAND
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	73.0
Formation End Depth:	75.0

Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005999512
Layer: 3
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 28.0
Formation End Depth: 39.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005999537
Layer: 1
Plug From: 0.0
Plug To: 20.0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005999538
Layer: 2
Plug From: 20.0
Plug To: 62.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1005999536
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 1005999508
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1005999524
Layer: 4
Material: 1
Open Hole or Material: STEEL
Depth From: 88.0
Depth To: 91.0
Casing Diameter: 5.0

Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1005999522
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From: 64.0
Depth To: 67.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1005999523
Layer: 3
Material: 1
Open Hole or Material: STEEL
Depth From: 73.0
Depth To: 79.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1005999521
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: 0.0
Depth To: 67.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1005999526
Layer: 2
Slot: 25
Screen Top Depth: 79.0
Screen End Depth: 88.0
Screen Material: 8
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 6.0

Construction Record - Screen

Screen ID: 1005999525
Layer: 1
Slot: 20
Screen Top Depth: 67.0
Screen End Depth: 73.0
Screen Material: 8
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 6.0

Results of Well Yield Testing

Pumping Test Method Desc:	
Pump Test ID:	1005999509
Pump Set At:	88.0
Static Level:	55.41999816894531
Final Level After Pumping:	61.91999816894531
Recommended Pump Depth:	
Pumping Rate:	6.400000095367432
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	3
Pumping Duration MIN:	0
Flowing:	No

Draw Down & Recovery

Pump Test Detail ID:	1005999527
Test Type:	Draw Down
Test Duration:	1
Test Level:	57.9900016784668
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005999531
Test Type:	Draw Down
Test Duration:	10
Test Level:	61.040000915527344
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005999534
Test Type:	Draw Down
Test Duration:	60
Test Level:	61.70000076293945
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005999529
Test Type:	Draw Down
Test Duration:	3
Test Level:	59.689998626708984
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005999533
Test Type:	Draw Down
Test Duration:	40
Test Level:	61.599998474121094
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005999528
Test Type:	Draw Down
Test Duration:	2
Test Level:	59.029998779296875
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005999532
Test Type:	Draw Down
Test Duration:	15
Test Level:	31.290000915527344
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1005999530
Test Type:	Draw Down
Test Duration:	4
Test Level:	60.279998779296875
Test Level UOM:	ft

Water Details

Water ID:	1005999520
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1005999519
Diameter:	8.5
Depth From:	0.0
Depth To:	91.0
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Links

Bore Hole ID:	1005920518	***Tag No:***	A185262
Depth M:	25.6032	***Contractor:***	1663
Year Completed:	2016	***Path:***	726\7260571.pdf
Well Completed Dt:	2016/02/11	***Latitude:***	43.7709947089684
Audit No:	Z186018	***Longitude:***	-79.4137009268345

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
77	1 of 2	WSW/243.0	171.0 / -8.80	***G GROUP 5220 YONGE LTD.*** ***5246 YONGE STREET, TORONTO, ON M2N 5P6*** ***Toronto ON***	RSC

RSC ID:	225809	***Cert Date:***	
RA No:		***Cert Prop Use No:***	
RSC Type:	Phase 1 and 2 RSC	***Intended Prop Use:***	Residential
Curr Property Use:	Commercial	***Qual Person Name:***	GERARD VAN ITERSON
Ministry District:	Toronto District Office	***Stratified (Y/N):***	
Filing Date:	2019/06/21	***Audit (Y/N):***	

Date Ack: ***Entire Leg Prop. (Y/N):***
Date Returned: ***Accuracy Estimate:***
Restoration Type: ***Telephone:***
Soil Type: ***Fax:***
Criteria: ***Email:***
CPU Issued Sect 1686:
Asmt Roll No: 1908-07-2-245-02400, 1908-07-2-245-02300
Prop ID No (PIN): 10143-0147 (LT), 10143-0148 (LT)
Property Municipal Address: 5222 YONGE, TORONTO, ON M2N 5P6, 5246 YONGE STREET, TORONTO, ON M2N 5P6
Mailing Address:
Latitude & Latitude:
UTM Coordinates:
Consultant:
Legal Desc:
Measurement Method:
Applicable Standards:
RSC PDF: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114596&fileName=BROWNFIELDS-E.pdf

Document(s) Detail

Document Heading: Supporting Documents
Document Name: G GROUP 5220 YONGE Cert of Status June 2019.pdf
Document Type: Certificate of Status
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114599&fileName=G+GROUP+5220+YONGE+Cert+of+Status+June+2019.pdf

Document Heading: Supporting Documents
Document Name: 5222-5246 Yonge Table of Use.pdf
Document Type: Table of Current and Past Property Use
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114595&fileName=5222-5246+Yonge+Table+of+Use.pdf

Document Heading: Supporting Documents
Document Name: 5222-5246 Yonge Survey June 2019.pdf
Document Type: A Current plan of Survey
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114597&fileName=5222-5246+Yonge+Survey+June+2019.pdf

Document Heading: Supporting Documents
Document Name: PhaseTwo.pdf
Document Type: Phase 2 Conceptual Site Model
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=115190&fileName=PhaseTwo.pdf

Document Heading: Supporting Documents
Document Name: APECtable.pdf
Document Type: Area(s) of Potential Environmental Concern
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=115191&fileName=APECtable.pdf

Document Heading: Supporting Documents
Document Name: 5222-5246 Yonge Transfer Deeds.pdf
Document Type: Copy of any deed(s), transfer(s) or other document(s)
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114600&fileName=5222-5246+Yonge+Transfer+Deeds.pdf

Document Heading: Supporting Documents
Document Name: 5222-5246 Lawyer Letter.pdf
Document Type: Lawyer's letter consisting of a legal description of the property
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114590&fileName=5222-5246+Lawyer+Letter.pdf

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
77	2 of 2	WSW/243.0	171.0 / -8.80	THE CITY OF TORONTO 5222 YONGE STREET, TORONTO, ON M2N 5P6 Toronto ON	RSC

RSC ID: 225806
RA No:
RSC Type: Phase 1 and 2 RSC
Curr Property Use: Commercial
Ministry District: Toronto District Office
Filing Date: 2019/06/21
Date Ack:
Date Returned:
Restoration Type:
Soil Type:
Criteria:
CPU Issued Sect 1686:
Cert Date:
Cert Prop Use No:
Intended Prop Use: Residential
Qual Person Name: GERARD VAN ITERSON
Stratified (Y/N):
Audit (Y/N):
Entire Leg Prop. (Y/N):
Accuracy Estimate:
Telephone:
Fax:
Email:
Asmt Roll No: 1908-07-2-245-02400
Prop ID No (PIN): 10143-0149 (LT)
Property Municipal Address: 5222 YONGE STREET, TORONTO, ON M2N 5P6
Mailing Address:
Latitude & Latitude:
UTM Coordinates:
Consultant:
Legal Desc:
Measurement Method:
Applicable Standards:
RSC PDF: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114553&fileName=BROWNFIELDS-E.pdf

Document(s) Detail

Document Heading: Supporting Documents
Document Name: Yonge Owner Agent Authorization.pdf
Document Type: Proof of the owner's authorization
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114549&fileName=Yonge+Owner+Agent+Authorization.pdf

Document Heading: Supporting Documents
Document Name: 5222 Yonge Lawyer Letter.pdf
Document Type: Lawyer's letter consisting of a legal description of the property
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114557&fileName=5222+Yonge+Lawyer+Letter.pdf

Document Heading: Supporting Documents
Document Name: 5222 Yonge Transfer.pdf
Document Type: Copy of any deed(s), transfer(s) or other document(s)
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114559&fileName=5222+Yonge+Transfer.pdf

Document Heading: Supporting Documents
Document Name: 5222 Yonge Table of Use2.pdf
Document Type: Table of Current and Past Property Use
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114551&fileName=5222+Yonge+Table+of+Use2.pdf

Document Heading: Supporting Documents
Document Name: 5222 APECs June 2019.pdf
Document Type: Area(s) of Potential Environmental Concern
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114558&fileName=5222+APECs+June+2019.pdf

Document Heading: Supporting Documents
Document Name: 5222 CSM June 2019.pdf

Document Type: Phase 2 Conceptual Site Model
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114556&fileName=5222+CSM+June+2019.pdf

Document Heading: Supporting Documents
Document Name: 5222 Yonge Survey June 2019.pdf
Document Type: A Current plan of Survey
Document Link: https://www.lrcsde.lrc.gov.on.ca/BFISWebPublic/pub/viewDocument.action?attachmentId=114554&fileName=5222+Yonge+Survey+June+2019.pdf

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78 | **1 of 1** | **SSW/243.1** | **170.9 / -8.97** | **28 EMPRESS AVENUE, TORONTO ON** | **INC**

Incident No:	1991040	**Any Health Impact:**	No
Incident ID:		**Any Enviro Impact:**	No
Instance No:		**Service Interrupted:**	No
Status Code:		**Was Prop Damaged:**	No
Attribute Category:	FS-Perform L1 Incident Insp	**Reside App. Type:**	
Context:		**Commer App. Type:**	
Date of Occurrence:	2016/12/12 00:00:00	**Indus App. Type:**	
Time of Occurrence:	03:30:00	**Institut App. Type:**	
Incident Created On:		**Venting Type:**	
Instance Creation Dt:		**Vent Conn Mater:**	
Instance Install Dt:		**Vent Chimney Mater:**	
Occur Insp Start Date:	2016/12/12 00:00:00	**Pipeline Type:**	
Approx Quant Rel:		**Pipeline Involved:**	
Tank Capacity:		**Pipe Material:**	
Fuels Occur Type:	CO Release	**Depth Ground Cover:**	
Fuel Type Involved:	Natural Gas	**Regulator Location:**	
Enforcement Policy:	NULL	**Regulator Type:**	
Prc Escalation Req:	NULL	**Operation Pressure:**	
Tank Material Type:		**Liquid Prop Make:**	
Tank Storage Type:		**Liquid Prop Model:**	
Tank Location Type:		**Liquid Prop Serial No:**	
Pump Flow Rate Cap:		**Liquid Prop Notes:**	
Task No:	6467182	**Equipment Type:**	
Notes:		**Equipment Model:**	
Drainage System:		**Serial No:**	
Sub Surface Contam.:		**Cylinder Capacity:**	
Aff Prop Use Water:		**Cylinder Cap Units:**	
Contam. Migrated:		**Cylinder Mat Type:**	
Contact Natural Env:		**Near Body of Water:**	

Incident Location: 28 EMPRESS AVENUE, TORONTO - CO RELEASE
Occurence Narrative: High CO from boiler room.
Operation Type Involved: Multi-unit Residential
Item:
Item Description:
Device Installed Location:

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79 | **1 of 2** | **WSW/243.2** | **170.3 / -9.59** | **5220 Yonge St. Toronto ON M2N 5P6** | **EHS**

Order No:	20030331007	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Basic Report	**Client Prov/State:**	ON
Report Date:	4/8/03	**Search Radius (km):**	0.25
Date Received:	3/31/03	**X:**	-79.413498
Previous Site Name:		**Y:**	43.771092
Lot/Building Size:			
Additional Info Ordered:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
79	2 of 2	WSW/243.2	170.3 / -9.59	G Group 5220 Yonge Ltd. 5220 Yonge St 5250 Yonge St Toronto ON L4C 9T3	ECA

Approval No: 9574-B2ZNQT
Approval Date: 2018-07-30
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: G Group 5220 Yonge Ltd.
Address: 5220 Yonge St 5250 Yonge St
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0593-B2THDP-14.pdf
PDF Site Location:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
80	1 of 1	SW/244.4	169.9 / -9.98	ON	WWIS

Well ID: 7243799
Construction Date:
Use 1st:
Use 2nd:
Final Well Status:
Water Type:
Casing Material:
Audit No: C24453
Tag: A174351
Constructn Method:
Elevation (m):
Elevatn Reliabilty:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Clear/Cloudy:
Municipality: NORTH YORK BOROUGH
Site Info:

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2015/06/04
Year Completed: 2015
Depth (m):
Latitude: 43.7708031137205
Longitude: -79.4135196183611
Path:

Bore Hole Information

Bore Hole ID: 1005445831
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Flowing (Y/N):
Flow Rate:
Data Entry Status: Yes
Data Src:
Date Received: 30-Jun-2015 00:00:00
Selected Flag: TRUE
Abandonment Rec:
Contractor: 7238
Form Version: 8
Owner:
County: YORK
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:
Elevation:
Elevrc:
Zone: 17
East83: 627684.00
North83: 4847640.00
Org CS: UTM83
UTMRC: 4

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Date Completed: 04-Jun-2015 00:00:00
Remarks:
Loc Method Desc: on Water Well Record
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Links

Bore Hole ID: 1005445831
Depth M:
Year Completed: 2015
Well Completed Dt: 2015/06/04
Audit No: C24453

Tag No: A174351
Contractor: 7238
Path:
Latitude: 43.7708031137205
Longitude: -79.4135196183611

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81 | **1 of 1** | **WSW/244.9** | **171.2 / -8.66** | **5220, 5222, 5246 and 5250 Yonge Street PIN 10143-0149 LT, PIN 10143-0146 LT North York ON** | **EHS**

Order No: 20170424042
Status: C
Report Type: Custom Report
Report Date: 25-APR-17
Date Received: 24-APR-17
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): .25
X: -79.414043
Y: 43.771329

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82 | **1 of 1** | **WNW/245.1** | **179.8 / -0.04** | **5323 Yonge Street North York ON M2N 5R4** | **EHS**

Order No: 20030623010
Status: C
Report Type: Basic Report
Report Date: 7/2/03
Date Received: 6/23/03
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Title Search

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.413831
Y: 43.773715

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83 | **1 of 1** | **WSW/248.1** | **171.0 / -8.80** | **5220 yonge st North York ON M2N 5P6** | **EHS**

Order No: 20180925159
Status: C
Report Type: RSC Report (Urban)
Report Date: 02-OCT-18
Date Received: 25-SEP-18
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality: Toronto
Client Prov/State: ON
Search Radius (km): .3
X: -79.414026
Y: 43.771246

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84 | **1 of 1** | **WNW/248.8** | **179.5 / -0.36** | **5320-5324 Yonge St North York ON M2N 5P9** | **EHS**

Order No: 22062900435

Nearest Intersection:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	05-JUL-22	**Search Radius (km):**	.25
Date Received:	29-JUN-22	**X:**	-79.4141946
Previous Site Name:		**Y:**	43.7731654
Lot/Building Size:			
Additional Info Ordered:			

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85 **1 of 6** **WSW/249.5** **169.9 / -9.99** **5200 Yonge G.P. Inc.**
5200 Yonge St
Toronto ON L8L 8M9
ECA

Approval No:	7288-A3BRNC	**MOE District:**	
Approval Date:	2015-10-20	**City:**	
Status:	Approved	**Longitude:**	
Record Type:	ECA	**Latitude:**	
Link Source:	IDS	**Geometry X:**	
SWP Area Name:		**Geometry Y:**	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: 5200 Yonge G.P. Inc.
Address: 5200 Yonge St
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2459-A2VHC6-14.pdf
PDF Site Location:

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85 **2 of 6** **WSW/249.5** **169.9 / -9.99** **5200 Yonge G.P.Inc**
5200 Yonge Street
North York ON M2N 5P6
GEN

Generator No:	ON7205667	**Status:**	
SIC Code:	236110	**Co Admin:**	Erika Baird
SIC Description:	RESIDENTIAL BUILDING CONSTRUCTION	**Choice of Contact:**	CO_ADMIN
Approval Years:	2016	**Phone No Admin:**	905 850 6154 Ext.296
PO Box No:		**Contam. Facility:**	No
Country:	Canada	**MHSW Facility:**	No

Detail(s)

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

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85 **3 of 6** **WSW/249.5** **169.9 / -9.99** **5200 Yonge G.P.Inc**
5200 Yonge Street
North York ON M2N 5P6
GEN

Generator No:	ON7205667	**Status:**	
SIC Code:	236110	**Co Admin:**	Kevin Nunes
SIC Description:	RESIDENTIAL BUILDING CONSTRUCTION	**Choice of Contact:**	CO_ADMIN
Approval Years:	2015	**Phone No Admin:**	905 850 6154 Ext.292
PO Box No:		**Contam. Facility:**	No
Country:	Canada	**MHSW Facility:**	No

Detail(s)

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
85	4 of 6	WSW/249.5	169.9 / -9.99	5200 Yonge G.P.Inc 5200 Yonge Street North York ON M2N 5P6	GEN

Generator No: ON7205667
SIC Code:
SIC Description:
Approval Years: As of Dec 2018
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
85	5 of 6	WSW/249.5	169.9 / -9.99	Xact Mechanical 5200 Yonge Street Toronto ON M2N 5P6	GEN

Generator No: ON8877138
SIC Code:
SIC Description:
Approval Years: As of Oct 2019
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 212 L
Waste Class Desc: Aliphatic solvents and residues

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
85	6 of 6	WSW/249.5	169.9 / -9.99	5200 Yonge G.P. Inc. and 5200 Yonge Limited Partnership 5200 Yonge Street Toronto, ON Canada ON	CPU

EBR Registry No: 019-1224
Ministry Ref No: 2724-AKBPKV
Notice Type: Instrument
Notice Stage: Decision
Notice Date:
Proposal Date: January 28, 2020
Year: 2020
Decision Posted: February 11, 2021
Exception Posted:
Section: Section 168.6
Act 1: Environmental Protection Act, R.S.O. 1990
Act 2: Environmental Protection Act
Site Location Map: 43.770655,-79.413522
Instrument Type: Certificate of property use
Off Instrument Name: Certificate of Property Use (EPA s. 168.6)
Posted By: Ministry of the Environment, Conservation and Parks
Company Name:
Site Address: 5200 Yonge Street Toronto, ON Canada
Location Other:
Proponent Name: 5200 Yonge G.P. Inc. and 5200 Yonge Limited Partnership
Proponent Address: 5200 Yonge G.P. Inc. and 5200 Yonge Limited Partnership 800 - 3700 Steeles Ave W Vaughan, ON L4L 8M9 Canada
Comment Period: January 28, 2020 - February 27, 2020 (30 days) Closed
URL: https://ero.ontario.ca/notice/019-1224

Site Location Details:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
86	1 of 1	W/249.9	176.5 / -3.33	5294 Yonge St Toronto ON M2N5P9	EHS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Order No:	20150521076	***Nearest Intersection:***	
Status:	C	***Municipality:***	Toronto
Report Type:	Standard Report	***Client Prov/State:***	ON
Report Date:	28-MAY-15	***Search Radius (km):***	.25
Date Received:	21-MAY-15	***X:***	-79.414414
Previous Site Name:		***Y:***	43.772583
Lot/Building Size:			
Additional Info Ordered:			

Unplottable Summary

Total: 59 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	CITY	E.OF YONGE ST. (LANE)	TORONTO ON	
CA	CITY	W.OF YONGE ST. (LANE)	TORONTO ON	
CA	CITY	W.OF YONGE ST. (LANE)	TORONTO ON	
CA	CITY	YONGE ST.	NORTH YORK CITY ON	
CA	CITY	YONGE ST.	NORTH YORK CITY ON	
CA		Part of Lots 128 & 129, RP 3344, E. of Yonge St.	Toronto ON	
CA		Part of Lots 128 & 129, RP 3344, E. of Yonge St.	Toronto ON	
CA		Pt Lot 3,Con 3, E of Yonge St, Pt Block S, Reg Plan 566. Designated as Pts 1,2,3, 4 and 5 Plan 66R-17673	Toronto ON	
CA		Pt Lot 3, Con 3, East of Yonge St, and Pt Blk S, Reg Plan 566. Designated as Pts 1,2,3, 4 and 5 on Plan 66R-17673	Toronto ON	
CA		Doris Avenue	Toronto ON	
CA		Doris Avenue	Toronto ON	
CA		Lot 9, Concession 5, West of Yonge Street	Toronto ON	
CA	City of Toronto	Kenneth Avenue	Toronto ON	
CA	Ringley Construction Ltd.	Part of Lots 13 & 14, Concession 5, West of Yonge Street	Toronto ON	
CA	Canadian Tire Corporation, Limited	Lot 15, Concession 2, East of Yonge Street	Toronto ON	
CA	Toronto Transit Commission	Yonge St	Toronto ON	
CA	Ringley Construction Ltd.	Part of Lots 13 & 14, Concession 5, West of Yonge Street	Toronto ON	

CA	Toronto Transit Commission	Road allowance between Concessions 3 & 4 West of Yonge St, in front of Lot 20, and Lot 20, Concession 3 West of Yonge St, geographic township of York	Toronto ON
CA	TEKNION FURNITURE SYSTEMS	PT.LOT 24/CONC. 3, YONGE ST.	NORTH YORK CITY ON
CA	TRANS-NORTHERN PIPELINES INC.	PT.LOT 22/CON.3, W. YONGE ST.	NORTH YORK CITY ON
CA	EXCEL DEVELOPMENT CORP. CONC. 3	W. OF YONGE ST. LOTS 6 & 7	NORTH YORK CITY ON
CA	NORTH YORK CITY	KINGSDALE AVE./WILKET CREEK	NORTH YORK CITY ON
CA	TORONTO CITY	YONGE ST. DIVERSION SEWER	NORTH YORK CITY ON
CA	NORTH YORK CITY APPL. NO. 2884	YONGE ST.	NORTH YORK CITY ON
CA	NORTH YORK CITY APPL. NO. 2865	KINGSDALE AVE.	NORTH YORK CITY ON
CA	NORTH YORK CITY APPL.NO. 2822	YONGE STREET	NORTH YORK CITY ON
CA	TORONTO CITY DR. P-225	PARKVIEW AVE	TORONTO CITY ON
CA	NORTH YORK CITY	KINGSDALE AVE. APPL. 2748	NORTH YORK CITY ON
CA	NORTH YORK APPL. #2699	YONGE ST.	NORTH YORK ON
CA	NORTH YORK CITY APPL. NO. 2707	YONGE STREET	NORTH YORK CITY ON
CA	MASTERCRAFT DEVELOPMENT CORP.	YONGE ST.	NORTH YORK CITY ON
CA	EXCEL DEVELOPMENT CORP.	W. OF YONGE STREET	NORTH YORK CITY ON
CA	SPACCO BILLIARD BAR & EATERY	PT.LOTS 1 & 2, E. OF YONGE ST.	TORONTO CITY ON
CA		Part of Lots 128 & 129, RP 3344, E. of Yonge St.	Toronto ON
CA	KNOLL NORTH AMERICA CORP.	PT.LOT 20,CONC. 5/W. YONGE ST.	NORTH YORK CITY ON
EBR	Carillion Canada Inc.	Toronto M3M 3G8 Lot:10 Concession:4 West of Yonge Street CITY OF TORONTO	ON
EBR	Shell Canada Limited, for and on behalf of Shell Canada Products	Toronto M3J 1P1 Lot:22 Concession:3 West of Yonge Street, York CITY OF TORONTO	ON
EBR	Satin Finish Hardwood Flooring (Ontario) Limited	Lot 9, Concession 5, West of Yonge Street Toronto Ontario Toronto	ON

ECA	Toronto Transit Commission	Yonge St	Toronto ON	M2N 6L9
ECA	City of Toronto	Lots 16, 17, Con. 2 from the Bay, Lots 16-20, Con. 3 from the Bay, Lot 1, Con. 1 E of Yonge St, York	Toronto ON	M5V 3C6
ECA	Toronto Transit Commission	Road allowance between Concessions 3 & 4 West of Yonge St, in front of Lot 20, and Lot 20, Concession 3 West of Yonge St, geographic township of York	Toronto ON	M2N 6L9
ECA	Toronto Transit Commission	Yonge St	Toronto ON	M2N 6L9
ECA	City of Toronto	McKee Ave	Toronto ON	M2N 5V7
ECA	Toronto Transit Commission	Yonge St	Toronto ON	M2N 6L9
ECA	City of Toronto	West of Yonge Street	Toronto ON	M2N 5V7
ECA	City of Toronto	McKee Ave	Toronto ON	M2N 5V7
ECA	Hydro One Networks Inc.	Lot 22, Concession 3 East of Yonge Street	Toronto ON	M5G 2P5
GEN	Trans Northern Pipelines Inc.	Lot 22, Concession 2, East of Yonge Street	Toronto ON	M2H1C4
GEN	NORTH YORK PRINTING & GRAPHICS INC.	YONGE STREET	TORONTO ON	
GEN	VICTONE CLEANERS	Yonge Street	Toronto ON	M2N 5N2
GEN	VICTONE CLEANERS	Yonge Street	Toronto ON	
GEN	Trans Northern Pipelines Inc.	Lot 22, Concession 2 East of Yonge Street	North York ON	M2H 1C2
GEN	VICTONE CLEANERS	Yonge Street	Toronto ON	
NPCB	ONTARIO HYDRO	LESLIE T.S, CONC.3; EAST OF YONGE ST, LOT 22	NORTH YORK ON	
SPL	UNKNOWN	ON KENNETH BETWEEN KINGSDALE & HOLLYWOOD	TORONTO CITY ON	
SPL		Ellerslie Ave from Wynn to 404 Ellerslie	Toronto ON	
SPL		W-bound Express Lane at Yonge St.	Toronto ON	
SPL	Enbridge Gas Distribution Inc.	Kenneth, just south of Finch (no address on building on site)	Toronto ON	
SPL		Yonge St just South of Bloor.	Toronto ON	

Unplottable Report

Site: ***CITY***
E.OF YONGE ST. (LANE) TORONTO ON

Database: ***CA***

Certificate #: 3-0447-85-006
Application Year: 85
Issue Date: 6/18/85
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***CITY***
W.OF YONGE ST. (LANE) TORONTO ON

Database: ***CA***

Certificate #: 3-0605-85-006
Application Year: 85
Issue Date: 8/2/85
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***CITY***
W.OF YONGE ST. (LANE) TORONTO ON

Database: ***CA***

Certificate #: 3-0607-85-006
Application Year: 85
Issue Date: 7/29/85
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***CITY***
YONGE ST. NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-1154-85-000
Application Year: 85

Issue Date: 12/9/86
Approval Type: Municipal sewage
Status: Application Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***CITY***
YONGE ST. NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-1342-85-006
Application Year: 85
Issue Date: 11/15/85
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site:
Part of Lots 128 & 129, RP 3344, E. of Yonge St. Toronto ON

Database: ***CA***

Certificate #: 7324-4KNNSR
Application Year: 00
Issue Date: 6/5/00
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: Heritage-Willow Estates Limited
Client Address: 55 Doncaster Avenue, Suite #104
Client City: Thornhill
Client Postal Code: L3T 1L7
Project Description: Construction of a storm and sanitary sewer on Doverwood Court
Contaminants:
Emission Control:

Site:
Part of Lots 128 & 129, RP 3344, E. of Yonge St. Toronto ON

Database: ***CA***

Certificate #: 5445-4KPLH9
Application Year: 00
Issue Date: 6/5/00
Approval Type: Municipal & Private water
Status: Approved
Application Type: New Certificate of Approval
Client Name: Heritage-Willow Estates Limited
Client Address: 55 Doncaster Avenue, Suite #104
Client City: Thornhill
Client Postal Code: L3T 1L7
Project Description: Construction of a Watermain on Doverwood Court
Contaminants:
Emission Control:

Site:

Pt Lot 3,Con 3, E of Yonge St, Pt Block S, Reg Plan 566. Designated as Pts 1,2,3, 4 and 5 Plan 66R-17673 Toronto ON

Database: ***CA***

Certificate #:	8764-4RBTNN
Application Year:	01
Issue Date:	1/8/01
Approval Type:	Municipal & Private sewage
Status:	Revoked and/or Replaced
Application Type:	New Certificate of Approval
Client Name:	English Lane Homes Inc.
Client Address:	333 Sheppard Avenue East, Suite 300
Client City:	Willowdale
Client Postal Code:	M2N 3B3
Project Description:	Construction of a storm sewer on City Land and an easement in Moccasin Trail Park.
Contaminants:	
Emission Control:	

Site:

Pt Lot 3, Con 3, East of Yonge St, and Pt Blk S, Reg Plan 566. Designated as Pts 1,2,3, 4 and 5 on Plan 66R-17673 Toronto ON

Database: ***CA***

Certificate #:	6757-4SPQEJ
Application Year:	01
Issue Date:	1/8/01
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	Amended CofA
Client Name:	English Lane Homes Inc. & Don-Green Belt Developments Inc.
Client Address:	333 Sheppard Avenue East, Suite 300
Client City:	Willowdale
Client Postal Code:	M2N 3B3
Project Description:	Change in ownership to include Don-Green Belt Developments Inc.
Contaminants:	
Emission Control:	

Site:

Doris Avenue Toronto ON

Database: ***CA***

Certificate #:	0535-5CDRQA
Application Year:	02
Issue Date:	7/26/02
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	City of Toronto
Client Address:	5100 Yonge Street
Client City:	Toronto
Client Postal Code:	M2N 5V7
Project Description:	Storm and sanitary sewers on Doris Avenue, all in accordance with the final plans and documents prepared by the City of Toronto
Contaminants:	
Emission Control:	

Site:

Doris Avenue Toronto ON

Database: ***CA***

Certificate #:	6828-5CDRVL
Application Year:	02
Issue Date:	7/26/02
Approval Type:	Municipal & Private water
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	City of Toronto
Client Address:	5100 Yonge Street

Client City: Toronto
Client Postal Code: M2N 5V7
Project Description: Watermains on Doris Avenue and McKee Avenue, all in accordance with the final plans and specifications prepared by the City of Toronto
Contaminants:
Emission Control:

Site: ***Database:*** ***CA***
Lot 9, Concession 5, West of Yonge Street Toronto ON

Certificate #: 3864-4PDQ6K
Application Year: 00
Issue Date: 9/26/00
Approval Type: Industrial air
Status: Approved
Application Type: New Certificate of Approval
Client Name: Satin Finish Hardwood Flooring (Ontario) Limited
Client Address: 8 Oak Street
Client City: Toronto
Client Postal Code: M9N 1R8
Project Description: This application is for approval for noise mitigation measures for pollution control equipment which is located adjacent to a proposed residential development. The sources of noise associated with the operation are external mechanical equipment including cyclones and associated duct work for the scrap system for a manufacturer of hardwood flooring, sashes, doors and wooden ware of all kinds.
Contaminants:
Emission Control:

Site: ***City of Toronto*** ***Database:*** ***CA***
Kenneth Avenue Toronto ON

Certificate #: 1692-5ZKHCE
Application Year: 2004
Issue Date: 6/3/2004
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Ringley Construction Ltd.*** ***Database:*** ***CA***
Part of Lots 13 & 14, Concession 5, West of Yonge Street Toronto ON

Certificate #: 5935-6G2RMC
Application Year: 2005
Issue Date: 9/13/2005
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Canadian Tire Corporation, Limited*** ***Database:*** ***CA***
Lot 15, Concession 2, East of Yonge Street Toronto ON

Certificate #: 6722-6FDL24
Application Year: 2005
Issue Date: 8/22/2005
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Toronto Transit Commission***
Yonge St Toronto ON

Database: ***CA***

Certificate #: 9045-7BTQNX
Application Year: 2008
Issue Date: 2/22/2008
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Ringley Construction Ltd.***
Part of Lots 13 & 14, Concession 5, West of Yonge Street Toronto ON

Database: ***CA***

Certificate #: 9121-6FJKP9
Application Year: 2005
Issue Date: 8/25/2005
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***Toronto Transit Commission***
Road allowance between Concessions 3 & 4 West of Yonge St, in front of Lot 20, and Lot 20, Concession 3 West of Yonge St, geographic township of York Toronto ON

Database: ***CA***

Certificate #: 7741-8LMMJY
Application Year: 2011
Issue Date: 9/23/2011
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***TEKNION FURNITURE SYSTEMS***
PT.LOT 24/CONC. 3, YONGE ST. NORTH YORK CITY ON

Database: ***CA***

Certificate #:	8-3183-93-
Application Year:	93
Issue Date:	5/18/1993
Approval Type:	Industrial air
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	PAINT SPRAY BOOTH & CAFETERIA EXHAUST
Contaminants:	Xylene, Toluene(Pentyl Methane)(Methyl Benzene), Mineral Spirits Med., Chlorodifluoromethane (Freon 22)
Emission Control:	Absorp. By Dry Collectors

Site: ***TRANS-NORTHERN PIPELINES INC.***
PT.LOT 22/CON.3, W. YONGE ST. NORTH YORK CITY ON

Database: ***CA***

Certificate #:	4-0082-94-
Application Year:	94
Issue Date:	9/28/1994
Approval Type:	Industrial wastewater
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	SURFACE RUN-OFF SEPARATION SYSTEM
Contaminants:	
Emission Control:	

Site: ***EXCEL DEVELOPMENT CORP. CONC. 3***
W. OF YONGE ST. LOTS 6 & 7 NORTH YORK CITY ON

Database: ***CA***

Certificate #:	7-1029-87-
Application Year:	87
Issue Date:	9/28/1987
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***NORTH YORK CITY***
KINGSDALE AVE./WILKET CREEK NORTH YORK CITY ON

Database: ***CA***

Certificate #:	3-1105-93-
Application Year:	93
Issue Date:	9/29/1993
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	

Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***TORONTO CITY***
YONGE ST. DIVERSION SEWER NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-1629-91-
Application Year: 91
Issue Date: 10/25/1991
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***NORTH YORK CITY APPL. NO. 2884***
YONGE ST. NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-1746-89-
Application Year: 89
Issue Date: 9/25/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***NORTH YORK CITY APPL. NO. 2865***
KINGSDALE AVE. NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-0940-89-
Application Year: 89
Issue Date: 6/26/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***NORTH YORK CITY APPL.NO. 2822***
YONGE STREET NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-0330-88-
Application Year: 88
Issue Date: 3/30/1988

Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***TORONTO CITY DR. P-225***
PARKVIEW AVE TORONTO CITY ON

Database: ***CA***

Certificate #: 3-1967-86-
Application Year: 86
Issue Date: 2/6/1987
Approval Type: Municipal sewage
Status: Approved in 1987
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***NORTH YORK CITY***
KINGSDALE AVE. APPL. 2748 NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-1807-86-
Application Year: 86
Issue Date: 12/12/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***NORTH YORK APPL. #2699***
YONGE ST. NORTH YORK ON

Database: ***CA***

Certificate #: 3-0032-86-
Application Year: 86
Issue Date: 11/4/1986
Approval Type: Municipal sewage
Status: Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***NORTH YORK CITY APPL. NO. 2707***

Database: ***CA***

YONGE STREET NORTH YORK CITY ON

Certificate #: 3-0276-86-
Application Year: 86
Issue Date: 4/4/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***MASTERCRAFT DEVELOPMENT CORP.***
YONGE ST. NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-1577-87-
Application Year: 87
Issue Date: 6/13/1990
Approval Type: Municipal sewage
Status: Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***EXCEL DEVELOPMENT CORP.***
W. OF YONGE STREET NORTH YORK CITY ON

Database: ***CA***

Certificate #: 3-1247-87-
Application Year: 87
Issue Date: 9/28/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***SPACCO BILLIARD BAR & EATERY***
PT.LOTS 1 & 2, E. OF YONGE ST. TORONTO CITY ON

Database: ***CA***

Certificate #: 8-3275-93-
Application Year: 93
Issue Date: 6/10/1993
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: WOOD BURNING PIZZA OVEN
Contaminants:

Emission Control:

Site: ***Database:*** ***CA***

Part of Lots 128 & 129, RP 3344, E. of Yonge St. Toronto ON

Certificate #: 3666-4KZPAZ
Application Year: 00
Issue Date: 6/7/00
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: Heritage-Willow Estates Limited
Client Address: 55 Doncaster Avenue, Suite #104
Client City: Thornhill
Client Postal Code: L3T 1L7
Project Description: This application is for the construction of a storm water management facility to serve a proposed residential development in the City of Toronto, North District.
Contaminants:
Emission Control:

Site: ***KNOLL NORTH AMERICA CORP.*** ***Database:*** ***CA***
PT.LOT 20,CONC. 5/W. YONGE ST. NORTH YORK CITY ON

Certificate #: 8-3446-92-
Application Year: 92
Issue Date: 3/11/1993
Approval Type: Industrial air
Status: Approved in 1993
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: NEW SEALER, TOP COAT FINISHING LINE
Contaminants: Suspended Particulate Matter, Toluene(Pentyl Methane)(Methyl Benzene), Methyl Ethyl Ketone (Butanone), Isobutyl Acetate, Isobutanol, Xylene, Ethyl Acetate, Mineral Spirits Med., Isopropyl Alcohol
Emission Control: Baghouse (Incl Vent Fil.), No Controls,

Site: ***Carillion Canada Inc.*** ***Database:*** ***EBR***
Toronto M3M 3G8 Lot:10 Concession:4 West of Yonge Street CITY OF TORONTO ON

EBR Registry No: 011-9012
Ministry Ref No: 4680-96SLTA
Notice Type: Instrument Decision
Notice Stage:
Notice Date: August 06, 2014
Proposal Date: May 03, 2013
Year: 2013
Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:
Instrument Type: (EPA Part II.1-air) - Environmental Compliance Approval (project type: air)
Off Instrument Name:
Posted By:
Company Name: Carillion Canada Inc.
Site Address:
Location Other:
Proponent Name:
Proponent Address: 7077 Keele Street, Vaughan Ontario, Canada L4K 0B6
Comment Period:
URL:

Site Location Details:

Toronto M3M 3G8 Lot:10 Concession:4 West of Yonge Street CITY OF TORONTO

Site: ***Shell Canada Limited, for and on behalf of Shell Canada Products***
Toronto M3J 1P1 Lot:22 Concession:3 West of Yonge Street, York CITY OF TORONTO ON

Database: ***EBR***

EBR Registry No:	012-4611	***Decision Posted:***	
Ministry Ref No:	0567-9PBJ5Q	***Exception Posted:***	
Notice Type:	Instrument Decision	***Section:***	
Notice Stage:		***Act 1:***	
Notice Date:	March 27, 2017	***Act 2:***	
Proposal Date:	July 13, 2015	***Site Location Map:***	
Year:	2015		
Instrument Type:	(EPA Part II.1-air) - Environmental Compliance Approval (project type: air)		
Off Instrument Name:			
Posted By:			
Company Name:	Shell Canada Limited, for and on behalf of Shell Canada Products		
Site Address:			
Location Other:			
Proponent Name:			
Proponent Address:	3975 Keele Street, Toronto Ontario, Canada M3J 1P1		
Comment Period:			
URL:			

Site Location Details:

Toronto M3J 1P1 Lot:22 Concession:3 West of Yonge Street, York CITY OF TORONTO

Site: ***Satin Finish Hardwood Flooring (Ontario) Limited***
Lot 9, Concession 5, West of Yonge Street Toronto Ontario Toronto ON

Database: ***EBR***

EBR Registry No:	IA00E1047	***Decision Posted:***	
Ministry Ref No:	8682-4LJPBM	***Exception Posted:***	
Notice Type:	Instrument Decision	***Section:***	
Notice Stage:		***Act 1:***	
Notice Date:	December 18, 2000	***Act 2:***	
Proposal Date:	June 22, 2000	***Site Location Map:***	
Year:	2000		
Instrument Type:	(EPA s. 9) - Approval for discharge into the natural environment other than water (i.e. Air)		
Off Instrument Name:			
Posted By:			
Company Name:	Satin Finish Hardwood Flooring (Ontario) Limited		
Site Address:			
Location Other:			
Proponent Name:			
Proponent Address:	8 Oak Street, Toronto Ontario, M9N 1R8		
Comment Period:			
URL:			

Site Location Details:

Lot 9, Concession 5, West of Yonge Street Toronto Ontario Toronto

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Site: ***Toronto Transit Commission***
Yonge St Toronto ON M2N 6L9

Database: ***ECA***

Approval No:	0962-7BUPC4	***MOE District:***	
Approval Date:	2008-02-22	***City:***	
Status:	Revoked and/or Replaced	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-Municipal Drinking Water Systems		
Project Type:	Municipal Drinking Water Systems		
Business Name:	Toronto Transit Commission		
Address:	Yonge St		
Full Address:			
Full PDF Link:			

PDF Site Location:

Site: ***City of Toronto*** **Database:** ECA
Lots 16, 17, Con. 2 from the Bay, Lots 16-20, Con. 3 from the Bay, Lot 1, Con. 1 E of Yonge St, York Toronto ON M5V 3C6

Approval No:	2582-7QRJ9U	***MOE District:***	
Approval Date:	2009-04-03	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: City of Toronto
Address: Lots 16, 17, Con. 2 from the Bay, Lots 16-20, Con. 3 from the Bay, Lot 1, Con. 1 E of Yonge St, York
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0663-7QBLUC-14.pdf
PDF Site Location:

Site: ***Toronto Transit Commission*** **Database:** ECA
Road allowance between Concessions 3 & 4 West of Yonge St, in front of Lot 20, and Lot 20, Concession 3 West of Yonge St, geographic township of York Toronto ON M2N 6L9

Approval No:	7741-8LMMJY	***MOE District:***	
Approval Date:	2011-09-23	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: Toronto Transit Commission
Address: Road allowance between Concessions 3 & 4 West of Yonge St, in front of Lot 20, and Lot 20, Concession 3 West of Yonge St, geographic township of York
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/6325-8L8RHF-14.pdf
PDF Site Location:

Site: ***Toronto Transit Commission*** **Database:** ECA
Yonge St Toronto ON M2N 6L9

Approval No:	8583-7CUNJ9	***MOE District:***	
Approval Date:	2008-03-18	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-Municipal Drinking Water Systems
Project Type: Municipal Drinking Water Systems
Business Name: Toronto Transit Commission
Address: Yonge St
Full Address:
Full PDF Link:
PDF Site Location:

Site: ***City of Toronto*** **Database:** ECA
McKee Ave Toronto ON M2N 5V7

Approval No:	8960-5R4HXY	***MOE District:***	
Approval Date:	2003-09-05	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	

SWP Area Name: ***Geometry Y:***
Approval Type: ECA-Municipal Drinking Water Systems
Project Type: Municipal Drinking Water Systems
Business Name: City of Toronto
Address: McKee Ave
Full Address:
Full PDF Link:
PDF Site Location:

Site: ***Toronto Transit Commission***
Yonge St Toronto ON M2N 6L9

Database: ***ECA***

Approval No: 9045-7BTQNX ***MOE District:***
Approval Date: 2008-02-22 ***City:***
Status: Approved ***Longitude:***
Record Type: ECA ***Latitude:***
Link Source: IDS ***Geometry X:***
SWP Area Name: ***Geometry Y:***
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: Toronto Transit Commission
Address: Yonge St
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0751-7BSUJ6-14.pdf
PDF Site Location:

Site: ***City of Toronto***
West of Yonge Street Toronto ON M2N 5V7

Database: ***ECA***

Approval No: 1776-759NTQ ***MOE District:***
Approval Date: 2007-07-24 ***City:***
Status: Approved ***Longitude:***
Record Type: ECA ***Latitude:***
Link Source: IDS ***Geometry X:***
SWP Area Name: ***Geometry Y:***
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: City of Toronto
Address: West of Yonge Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8901-758QNY-14.pdf
PDF Site Location:

Site: ***City of Toronto***
McKee Ave Toronto ON M2N 5V7

Database: ***ECA***

Approval No: 5511-7RJNCW ***MOE District:***
Approval Date: 2009-04-28 ***City:***
Status: Approved ***Longitude:***
Record Type: ECA ***Latitude:***
Link Source: IDS ***Geometry X:***
SWP Area Name: ***Geometry Y:***
Approval Type: ECA-Municipal Drinking Water Systems
Project Type: Municipal Drinking Water Systems
Business Name: City of Toronto
Address: McKee Ave
Full Address:
Full PDF Link:
PDF Site Location:

Site: ***Hydro One Networks Inc.***
Lot 22, Concession 3 East of Yonge Street Toronto ON M5G 2P5

Database: ***ECA***

Approval No:	6167-4LZP7U	***MOE District:***	
Approval Date:	2000-07-13	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-INDUSTRIAL SEWAGE WORKS		
Project Type:	INDUSTRIAL SEWAGE WORKS		
Business Name:	Hydro One Networks Inc.		
Address:	Lot 22, Concession 3 East of Yonge Street		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0114-4LCJ93-14.pdf		
PDF Site Location:			

Site: ***Trans Northern Pipelines Inc.***
Lot 22, Concession 2, East of Yonge Street Toronto ON M2H1C4

Database: ***GEN***

Generator No:	ON5739778	***Status:***	Registered
SIC Code:		***Co Admin:***	
SIC Description:		***Choice of Contact:***	
Approval Years:	As of Oct 2019	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:	Canada	***MHSW Facility:***	

Detail(s)

Waste Class:	146 L
Waste Class Desc:	Other specified inorganic sludges, slurries or solids

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Site: ***NORTH YORK PRINTING & GRAPHICS INC.***
YONGE STREET TORONTO ON

Database: ***GEN***

Generator No:	ON7229188	***Status:***	
SIC Code:	323114	***Co Admin:***	
SIC Description:	Quick Printing	***Choice of Contact:***	
Approval Years:	2009	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:		***MHSW Facility:***	

Detail(s)

Waste Class:	264
Waste Class Desc:	PHOTOPROCESSING WASTES

Site: ***VICTONE CLEANERS***
Yonge Street Toronto ON M2N 5N2

Database: ***GEN***

Generator No:	ON0611700	***Status:***	
SIC Code:		***Co Admin:***	
SIC Description:		***Choice of Contact:***	
Approval Years:	02,03,04,05,06,07,08	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:		***MHSW Facility:***	

Detail(s)

Waste Class:	241
Waste Class Desc:	HALOGENATED SOLVENTS

Site: ***VICTONE CLEANERS***
Yonge Street Toronto ON

Database: ***GEN***

Generator No:	ON0611700	***Status:***	
SIC Code:	812310	***Co Admin:***	

SIC Description: Coin-Operated Laundries and Dry Cleaners
Approval Years: 2010
PO Box No:
Country:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***Trans Northern Pipelines Inc.***
Lot 22, Concession 2 East of Yonge Street North York ON M2H 1C2
Database: ***GEN***

Generator No: ON4861766
SIC Code:
SIC Description:
Approval Years: As of Jul 2020
PO Box No:
Country: Canada
Status: Registered
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 146 L
Waste Class Desc: Other specified inorganic sludges, slurries or solids

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Site: ***VICTONE CLEANERS***
Yonge Street Toronto ON
Database: ***GEN***

Generator No: ON0611700
SIC Code: 812310
SIC Description: Coin-Operated Laundries and Dry Cleaners
Approval Years: 2009
PO Box No:
Country:
Status:
Co Admin:
Choice of Contact:
Phone No Admin:
Contam. Facility:
MHSW Facility:

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***ONTARIO HYDRO***
LESLIE T.S, CONC.3; EAST OF YONGE ST, LOT 22 NORTH YORK ON
Database: ***NPCB***

Company Code: O0901
Industry: Utility
Site Status:
Transaction Date: 5/31/1988
Inspection Date:

Site: ***UNKNOWN***
ON KENNETH BETWEEN KINGSDALE & HOLLYWOOD TORONTO CITY ON
Database: ***SPL***

Ref No: 27386
Site No:
Incident Dt: 11/3/1989
Year:
Incident Cause: UNKNOWN
Incident Event:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact:
Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: 01106

Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	NORTH YORK WORKS, METRO POLICE
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	11/3/1989	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	NORTH YORK WORKS- UNKNOWNQTY OF OIL SPILLED TO ROAD		
Contaminant Qty:			

Site: ***Database:*** ***SPL***

Ellerslie Ave from Wynn to 404 Ellerslie Toronto ON

Ref No:	5487-9MQ2FB	***Discharger Report:***	
Site No:	NA	***Material Group:***	
Incident Dt:	2014/08/05	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Leak/Break	***Sector Type:***	Motor Vehicle
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	Great Lakes - St. Lawrence; Lake Ontario; Toronto Region Lake Ontario Tributaries; Don River - East Toronto Beach
Contaminant Name:	TRANSMISSION OIL	***Site Address:***	Ellerslie Ave from Wynn to 404 Ellerslie
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Toronto
Nature of Impact:	Soil Contamination	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2014/08/05	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Land Spills
Incident Reason:	Unknown / N/A	***Source Type:***	
Site Name:	Ellerslie Ave<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	1L transmission fluid to Ellerslie Ave, cleaning		
Contaminant Qty:	1 L		

Site: ***Database:*** ***SPL***

W-bound Express Lane at Yonge St. Toronto ON

Ref No:	0211-85P388	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Container Leak (Fuel Tank Barrels)	***Sector Type:***	Transport Truck
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	
Nature of Impact:		***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	5/21/2010	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Highway Spills (usually highway accidents)

Incident Reason:	Debris on Road	***Source Type:***	
Site Name:	Hwy. 401 <UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Transport Truck -200 L of diesel to 401 from saddle tank.		
Contaminant Qty:	200 L		

Site: ***Enbridge Gas Distribution Inc.***
Kenneth, just south of Finch (no address on building on site) Toronto ON

Database: ***SPL***

Ref No:	7521-7QAN8V	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Discharge or Emission to Air	***Sector Type:***	Pipeline
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:	NATURAL GAS (METHANE)	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Possible	***Site Municipality:***	Toronto
Nature of Impact:	Air Pollution	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	Not MOE mandate	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	3/19/2009	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Air Spills - Gases and Vapours
Incident Reason:	Other - Reason not otherwise defined	***Source Type:***	
Site Name:	Kenneth, just south of Finch (no address on building on site)<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TSSA: Nat. gas to atm, gas main strike, had locates		
Contaminant Qty:	0 other - see incident description		

Site:
Yonge St just South of Bloor. Toronto ON

Database: ***SPL***

Ref No:	1068-7HRJNC	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:		***Sector Type:***	Unknown
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	Toronto - District
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Toronto
Nature of Impact:	Other Impact(s)	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	8/22/2008	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Watercourse Spills
Incident Reason:	Unknown - Reason not determined	***Source Type:***	
Site Name:	Diesel slick in sanitary line.<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Diesel Sheen in Sanitary Line; Yonge and Bloor		
Contaminant Qty:			

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Nov 2021

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Mar 2022

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-May 31, 2022

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2020

Commercial Fuel Oil Tanks: Provincial CFOT

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information.
Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Chemical Manufacturers and Distributors: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2020

Chemical Register: Private CHM

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-May 31, 2022

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 -Sep 2022

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Jun 2022

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994 - Sep 30, 2022

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Sep 2020

Delisted Fuel Tanks: Provincial DTNK

List of fuel storage tank sites that were once found in - and have since been removed from - the list of fuel storage tanks made available by the regulatory agency under Access to Public Information.

Government Publication Date: Feb 28, 2022

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011- Sep 30, 2022

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994 - Sep 30, 2022

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011- Sep 30, 2022

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Jul 31, 2022

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Apr 30, 2022

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2021

List of Expired Fuels Safety Facilities: Provincial EXP

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Sep 2022

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS): Federal FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Apr 30, 2022

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2019

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the Ministry of the Environment, Conservation and Parks compiles new and updated information. Includes small and large landfills currently operating as well as those which are closed and historic. Operators of larger landfills provide landfill information for the previous operating year to the ministry for LIMO including: estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Mar 21, 2022

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Feb 2022

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2020

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Jun 30, 2021

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Aug 31, 2022

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Aug 2021

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994 - Sep 30, 2022

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: Oct 2011- Sep 30, 2022

Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2021

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994 - Sep 30, 2022

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-1990, 1992-2019

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Sep 2022

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-May 31, 2022

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

List of spills and incidents made available the Ministry of the Environment, Conservation and Parks. This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X. The Ministry of the Environment, Conservation and Parks cites the coronavirus pandemic as an explanation for delays in releasing data pursuant to requests.

Government Publication Date: 1988-Sep 2020; Dec 2020-Mar 2021

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2020

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970 - Dec 2020

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered underground storage tanks must be removed within two years of disuse; if removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011- Sep 30, 2022

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Jun 30 2022

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix C

Historical City Directories

ENVIRONMENTAL RISK INFORMATION SERVICES

CITY DIRECTORY

Project Property: *37 Norton Avenue, North York, Ontario*
Report Type: *City Directory*
Order No: *22110500001*
Information Source: *Polk's Toronto North York On., Criss Cross Directory (TRL)*
Date Completed: *November 10, 2022*

City Directory Information Source

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Polk's Toronto North York On., Criss Cross Directory (TRL)

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 2001	
Site Listing:	-Address Not Listed
Adjacent Properties:	
238 Doris Avenue	-HR Developments -Multi Tenant Residential
256 Doris Avenue	-Multi Tenant Residential
260 Doris Avenue	-CSR Timber Products -Multi Tenant Residential
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed
5231 Yonge Street	-Tundra Music-Vintage Guitars

5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Multi Tenant Commercial

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1995	
Site Listing:	-Address Not Listed
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Sausage King
5231 Yonge Street	-Phoenix Car Rentals -U-Haul Co LTD

5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Multi Tenant Commercial

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1991	
Site Listing:	-Address Not Listed
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Pizza Nova
5229 Yonge Street	-Meat & Deli
5231 Yonge Street	-Vacant

5233 Yonge Street	-No Return
5255 Yonge Street	-The Second Byte

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1985-1986	
Site Listing:	-Residential (1 Tenant)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Bramalea Realty LTD
5229 Yonge Street	-Meat & Deli
5231 Yonge Street	-Grant's China & Gift Shop

5233 Yonge Street	-General Electronics Co
5255 Yonge Street	-Vacant

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1980	
Site Listing:	-Residential (1 Tenant)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Parkview Fashions
5229 Yonge Street	-Meat & Deli
5231 Yonge Street	-Grant’s China & Gift Shop

5233 Yonge Street	-Willow Fashions
5255 Yonge Street	-Sir William Fashions

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1976	
Site Listing:	-Residential (1 Tenant)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Parkview Fashions
5229 Yonge Street	-Meat & Deli
5231 Yonge Street	-Grant's China & Gift Shop

5233 Yonge Street	-Willow Fashions
5255 Yonge Street	-Sir William Fashions

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1970	
Site Listing:	-Residential (1 Tenant)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Parkview Fashions
5229 Yonge Street	-Meat & Deli
5231 Yonge Street	-Grant's China & Gift Shop

5233 Yonge Street	-Willow Fashions
5255 Yonge Street	-Sir William Men's & Boys Wear

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1965	
Site Listing:	-Residential (2 Tenants)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed
5231 Yonge Street	-Address Not Listed

5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1960	
Site Listing:	-Residential (2 Tenants)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed
5231 Yonge Street	-Address Not Listed

5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1955	
Site Listing:	-Residential (2 Tenants)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1950	
Site Listing:	-Residential (2 Tenants)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1945	
Site Listing:	-Residential (2 Tenants)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1940	
Site Listing:	-Residential (2 Tenants)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1935	
Site Listing:	-Residential (2 Tenants)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1930	
Site Listing:	-Residential (1 Tenant)
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1925	
Site Listing:	-Address Not Listed
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

PROJECT NUMBER: 22110500001	
Site Address:	37 Norton Avenue, North York, Ontario
Year: 1920	
Site Listing:	-Address Not Listed
Adjacent Properties:	
238 Doris Avenue	-Address Not Listed
256 Doris Avenue	-Address Not Listed
260 Doris Avenue	-Address Not Listed
5221 Yonge Street	-Address Not Listed
5223 Yonge Street	-Address Not Listed
5229 Yonge Street	-Address Not Listed

5231 Yonge Street	-Address Not Listed
5233 Yonge Street	-Address Not Listed
5255 Yonge Street	-Address Not Listed

-All listings for businesses were listed as they are in the city directory.

-Listings that are residential are listed as “residential” with the number of tenants. The name of the residential tenant is not listed in the above city directory.

Appendix D

Fire Insurance Plans

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INFORMATION INTELLIGENCE

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An SCM Company

175 Commerce Valley Drive W
Markham, Ontario L3T 7Z3

T: 905-882-6300
W: www.optaintel.ca

Report Completed By:

Stephanie

Site Address:

37 Norton Avenue North York ON

Project No:

22110500001

Opta Order ID:

119514

Requested by:

Eleanor Goolab
Ecolog Eris

Date Completed:

11/11/2022 12:25:25 PM

ENVIROSCAN Report

Search Area: 37 Norton Avenue North York ON

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25

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OPTA INFORMATION INTELLIGENCE

Opta Historical Environmental Services Enviroscan™ Terms and Conditions

Report

The documents (hereinafter referred to as the "Documents") to be released as part of the report (hereinafter referred to as the "Report") to be delivered to the purchaser as set out above are documents in Opta's records relating to the described property (hereinafter referred to as the "Property"). Opta makes no representations or warranties respecting the Documents whatsoever, including, without limitation, with respect to the completeness, accuracy or usefulness of the Documents, and does not represent or warrant that these are the only plans and reports prepared in association with the Property or in Opta's possession at the time of Report delivery to the purchaser. The Documents are current as of the date(s) indicated on them. Interpretation of the Documents, if any, is by inference based upon the information which is apparent and obvious on the face of the Documents only. Opta does not represent, warrant or guarantee that interpretations other than those referred to do not exist from other sources. The Report will be prepared for use by the purchaser of the services as shown above hereof only.

Disclaimer

Opta disclaims responsibility for any losses or damages of any kind whatsoever, whether consequential or other, however caused, incurred or suffered, arising directly or indirectly as a result of the services (which services include, but are not limited to, the preparation of the Report provided hereunder), including but not limited to, any losses or damages arising directly or indirectly from any breach of contract, fundamental or otherwise, from reliance on Opta Reports or from any tortious acts or omissions of Opta's agents, employees or representatives.

Entire Agreement

The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or written, and there are no representations or warranties, or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver, or termination of the request shall be binding, unless confirmed in writing by the parties hereto.

Governing Document

In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

Law

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

ENVIROSCAN Report

Report Index

ENVIROSCAN Report

1964 Volume: Toronto 18 Firemap: 1852
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1852 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25

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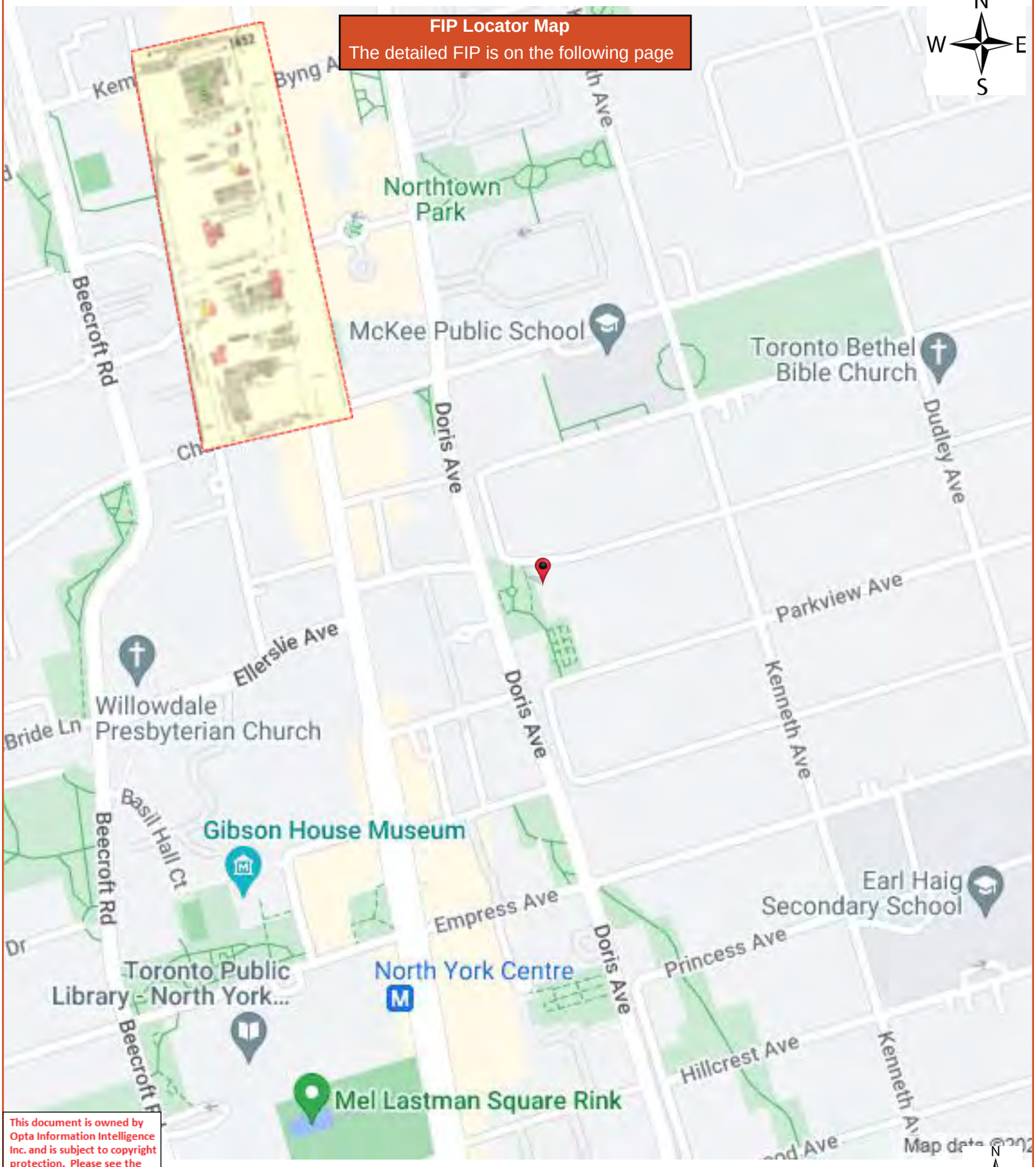
OPTA INFORMATION INTELLIGENCE

FIP Locator Map
The detailed FIP is on the following page



ENVIROSCAN Report

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Sheet: 1852 (1964)

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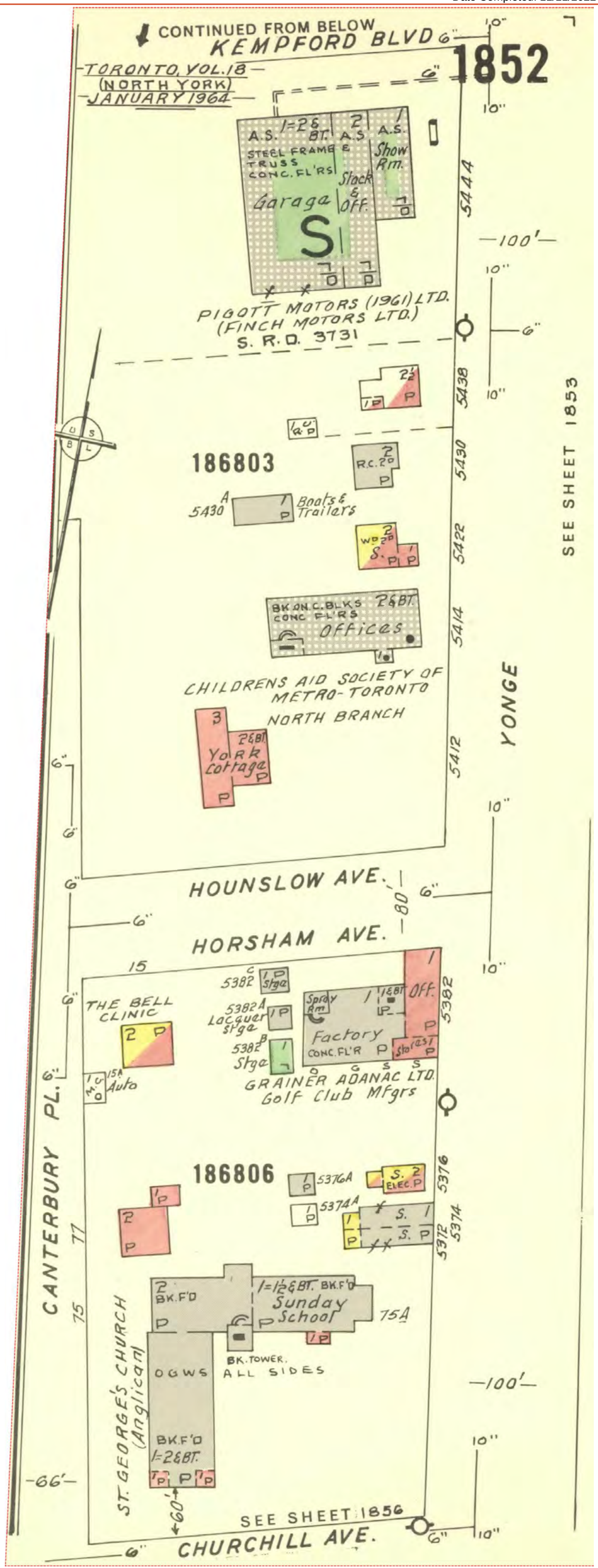
OPTA INFORMATION INTELLIGENCE



ENVIROSCAN Report

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Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1854 (1964)

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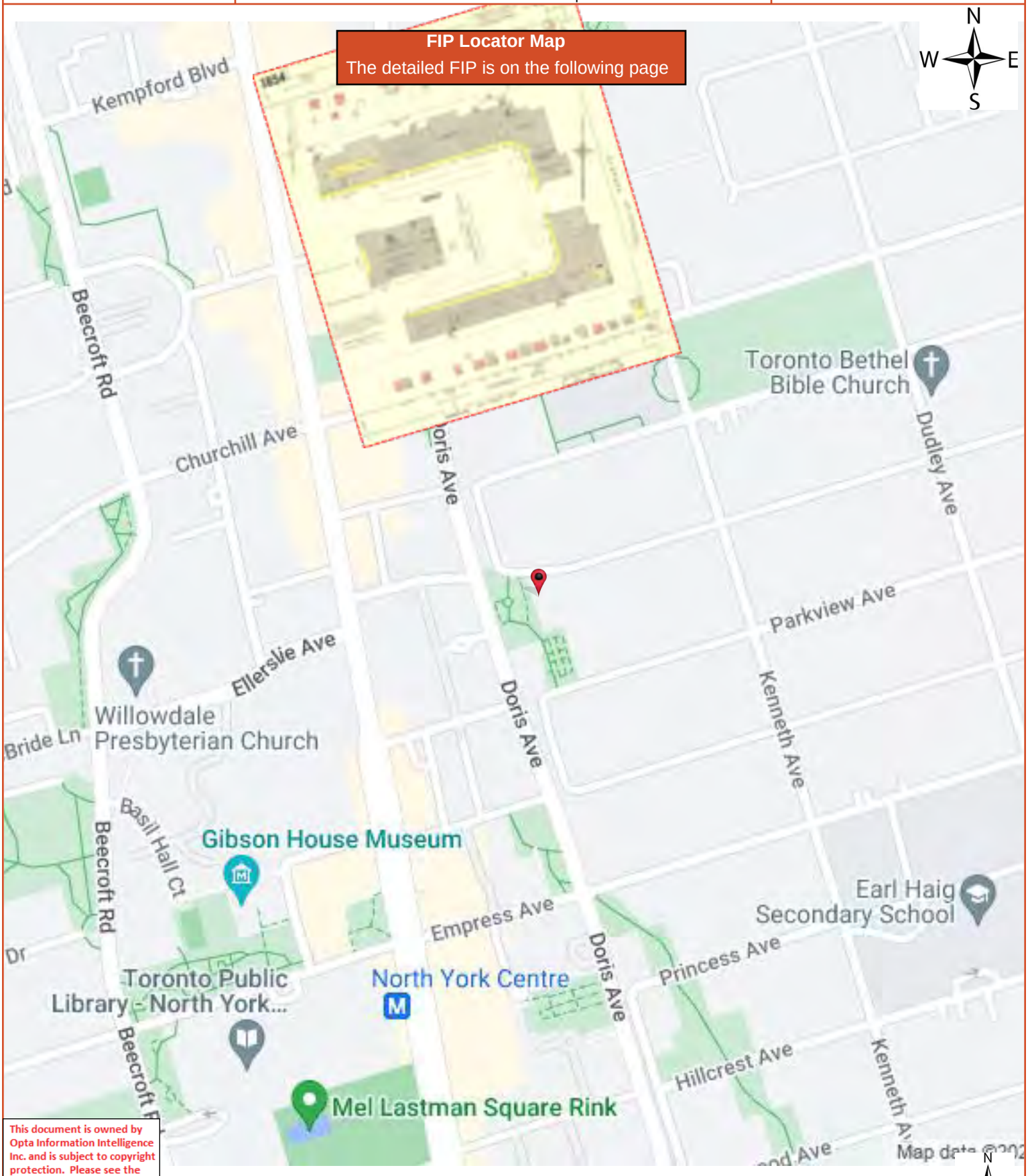
FIP Locator Map
The detailed FIP is on the following page



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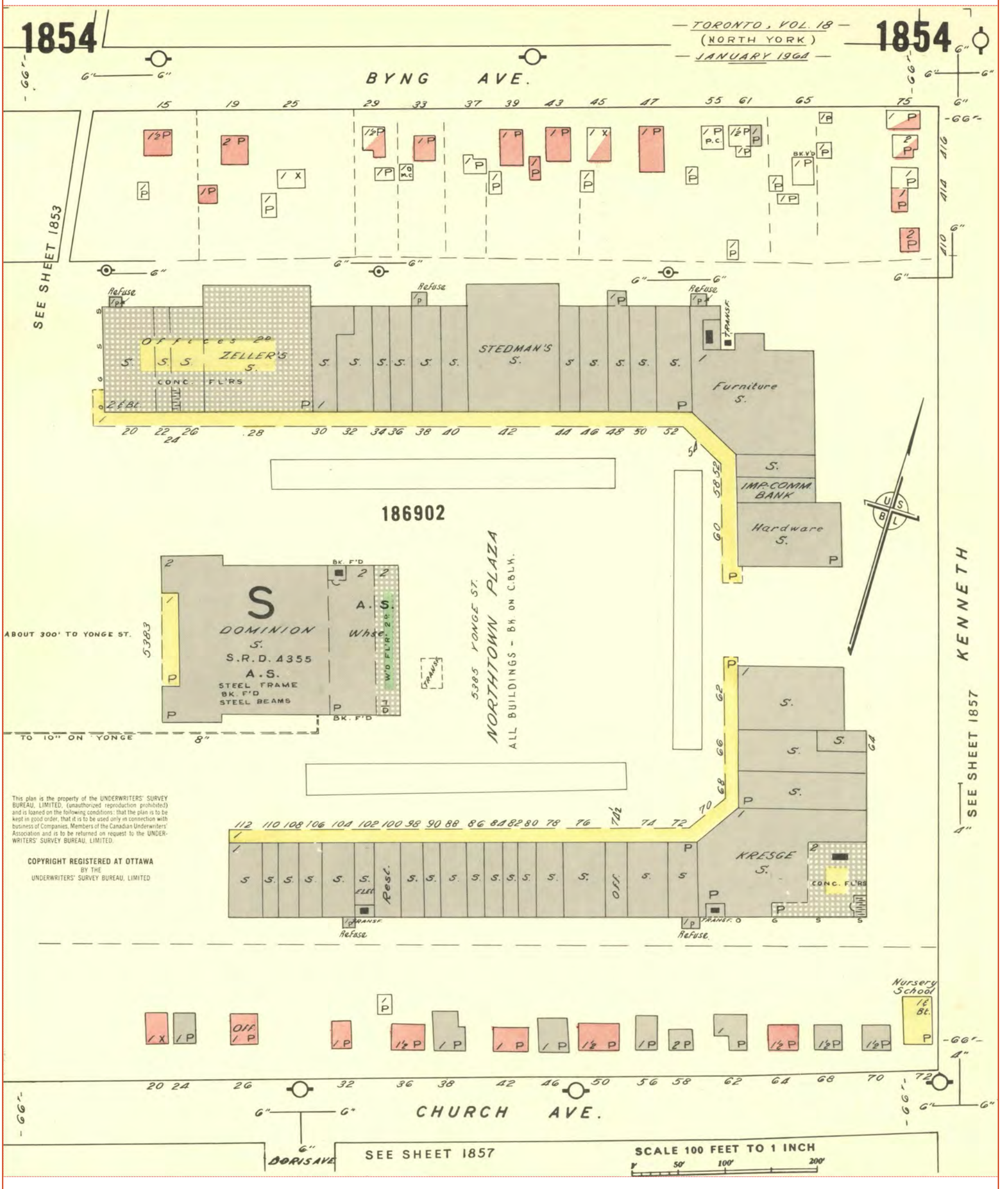

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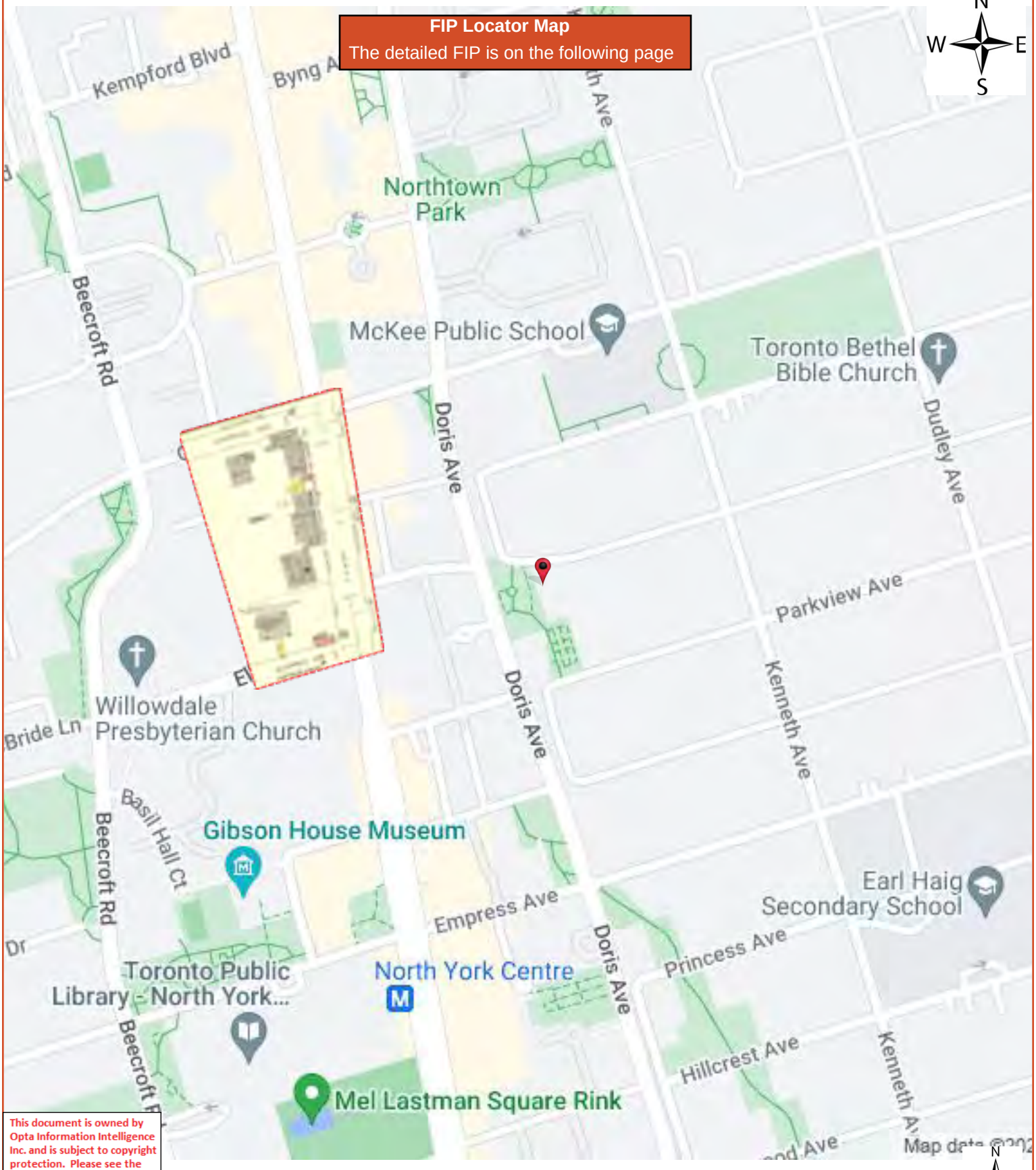
enviroscan
OPTA INFORMATION INTELLIGENCE

FIP Locator Map
The detailed FIP is on the following page



Project Name: 37 Norton Avenue

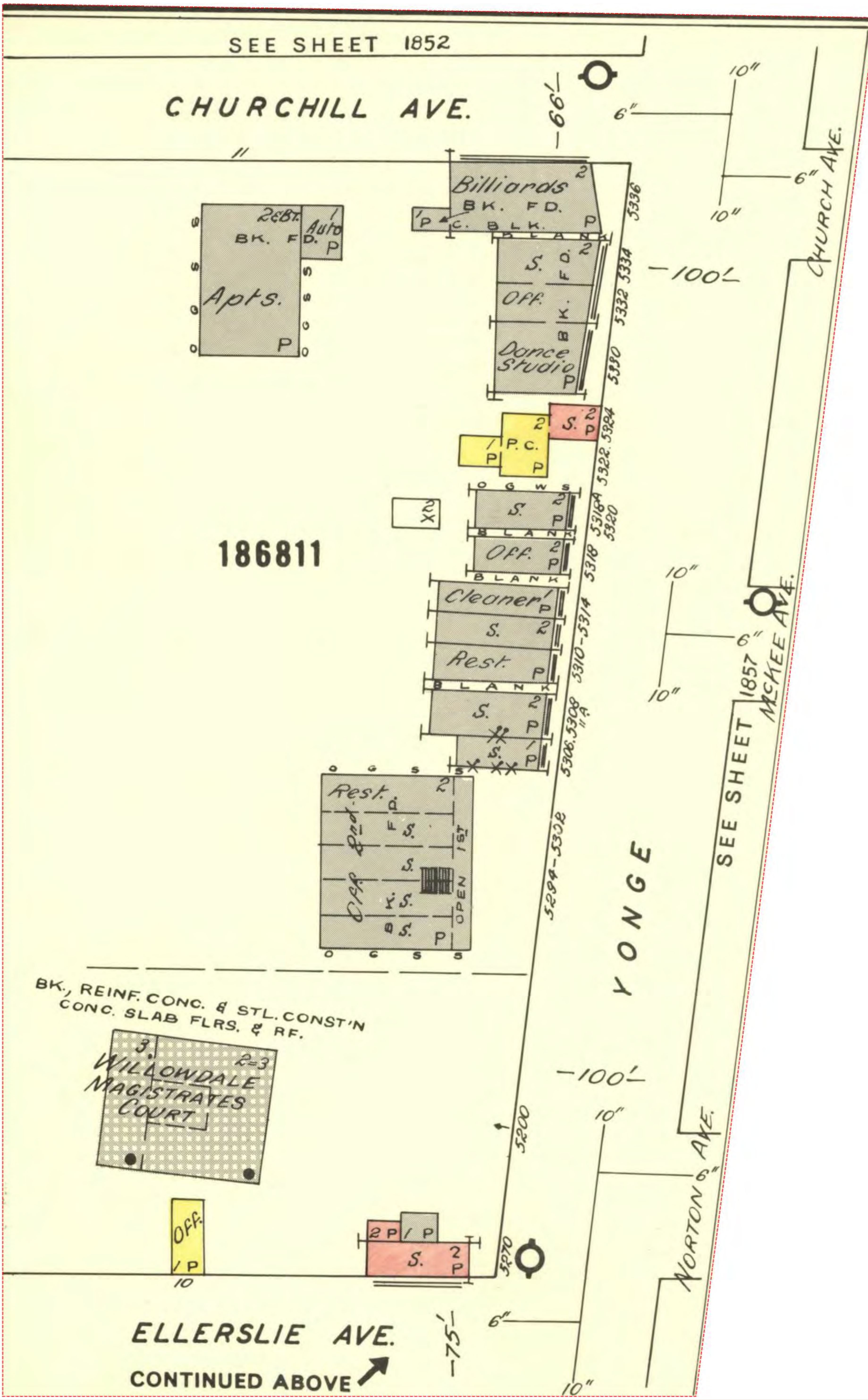
Project #: 22110500001
P.O. #: 12579218

ENVIROSCAN Report

1964 Volume: Toronto 18 Firemap: 1856
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1856 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25

OPTA INFORMATION INTELLIGENCE


SEE SHEET 1852
CHURCHILL AVE.
66'
Billiards
BK. FD.
C. BLK.
BLANK
S.
Off.
Dance Studio
BK. FD.
Apts.
2EBT.
Auto
P.C.
S.
186811
Off.
BLANK
Cleaner
S.
Rest.
BLANK
S.
Rest.
2nd Off.
1ST
OPEN
5336
5334
5332
5330
5322.5324
5318A
5320
5318
5310-5314
5306.5308
5294-5302
5200
5270
100'
10"
6"
CHURCH AVE.
McKEE AVE.
SEE SHEET 1857
YONGE
BK., REINF. CONC. & STL. CONST'N
CONC. SLAB FLRS. & RF.
WILLOWDALE MAGISTRATES COURT
2=3
Off.
10
NORTON AVE.
ELLERSLIE AVE.
75'
CONTINUED ABOVE

Project Name: 37 Norton Avenue

Project #: 22110500001
P.O. #: 12579218

ENVIROSCAN Report

1964 Volume: Toronto 18 Firemap: 1856
Toronto Volume 18 Plan: 2190 (1964)
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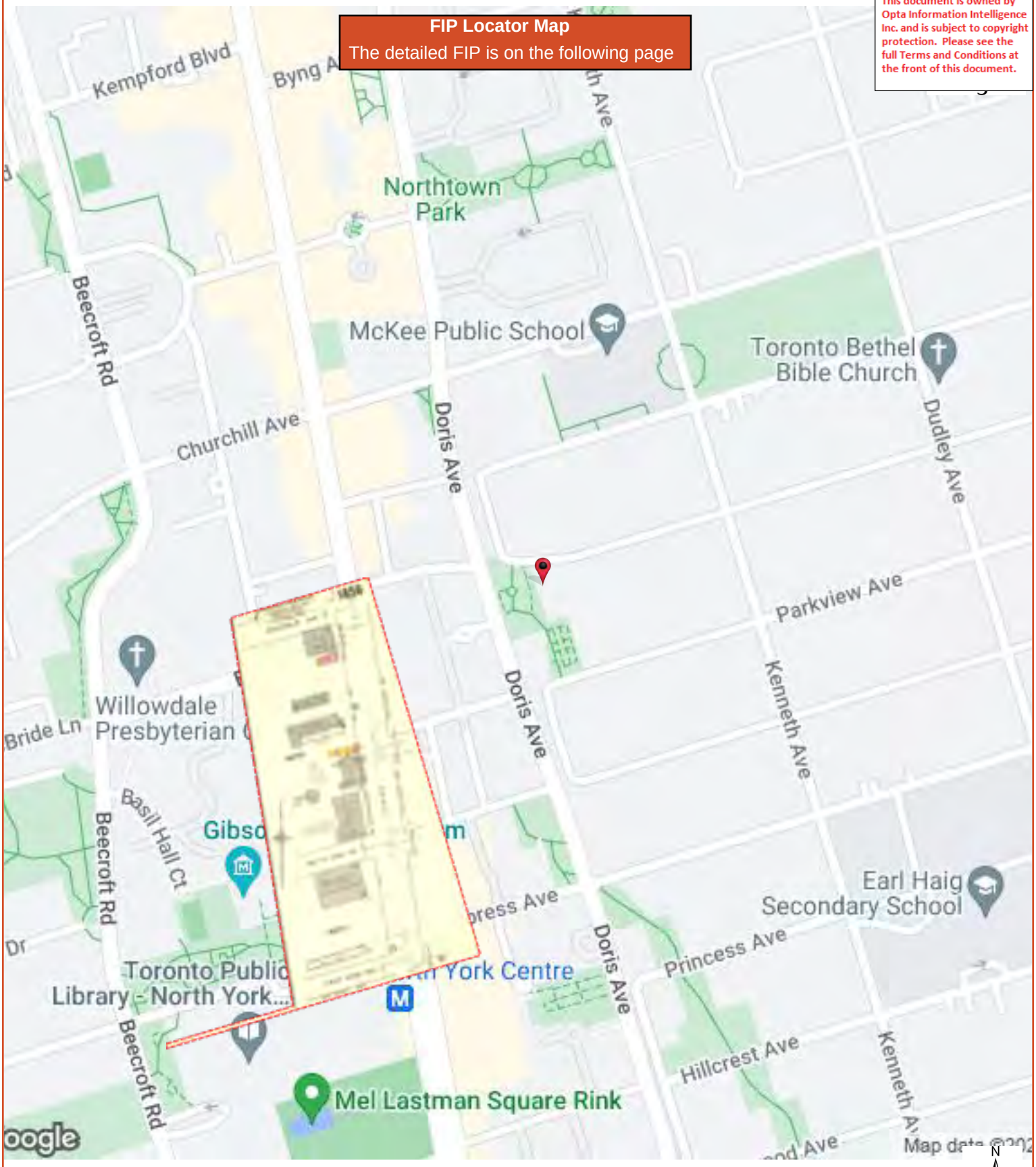

ENVIROSCAN Report

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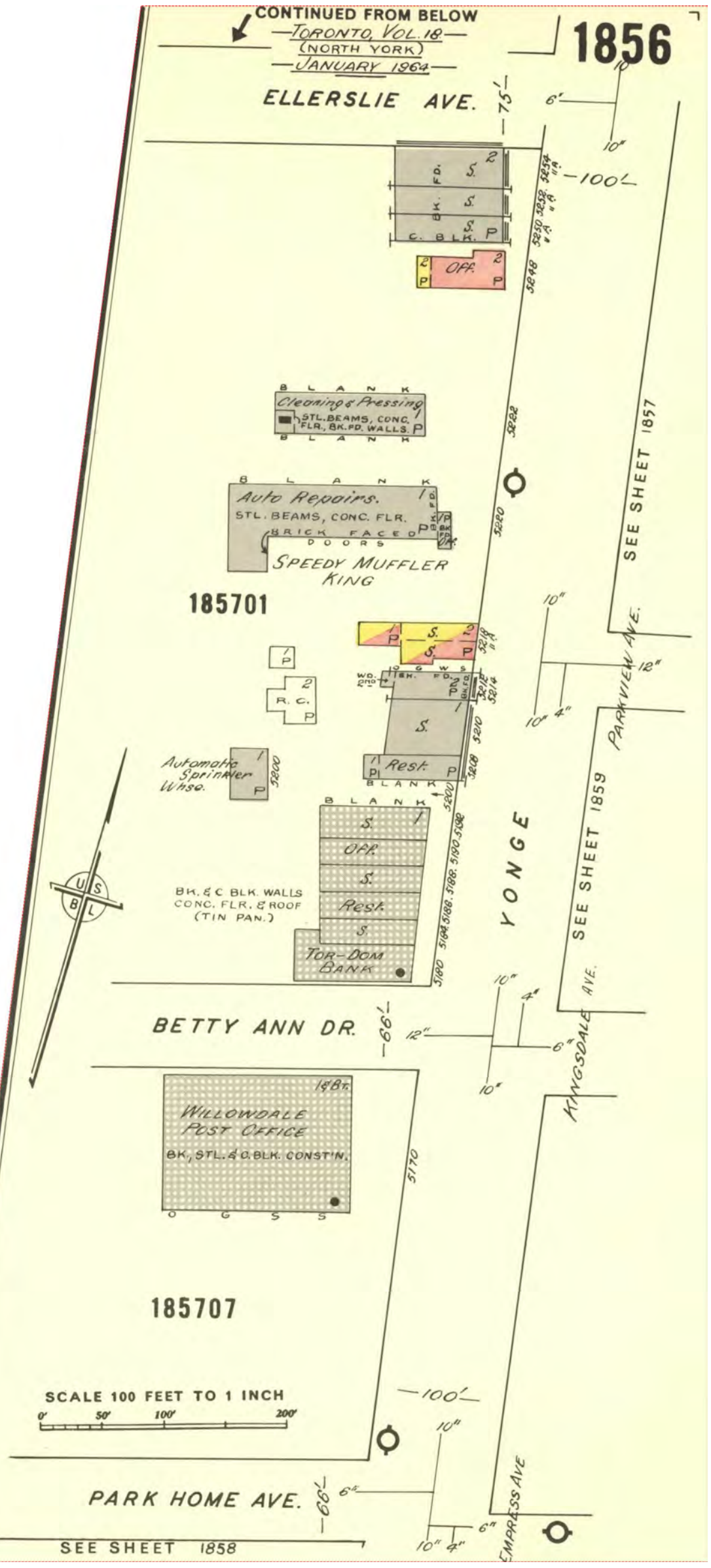

ENVIROSCAN Report

1964 Volume: Toronto 18 Firemap: 1857
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1857 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25

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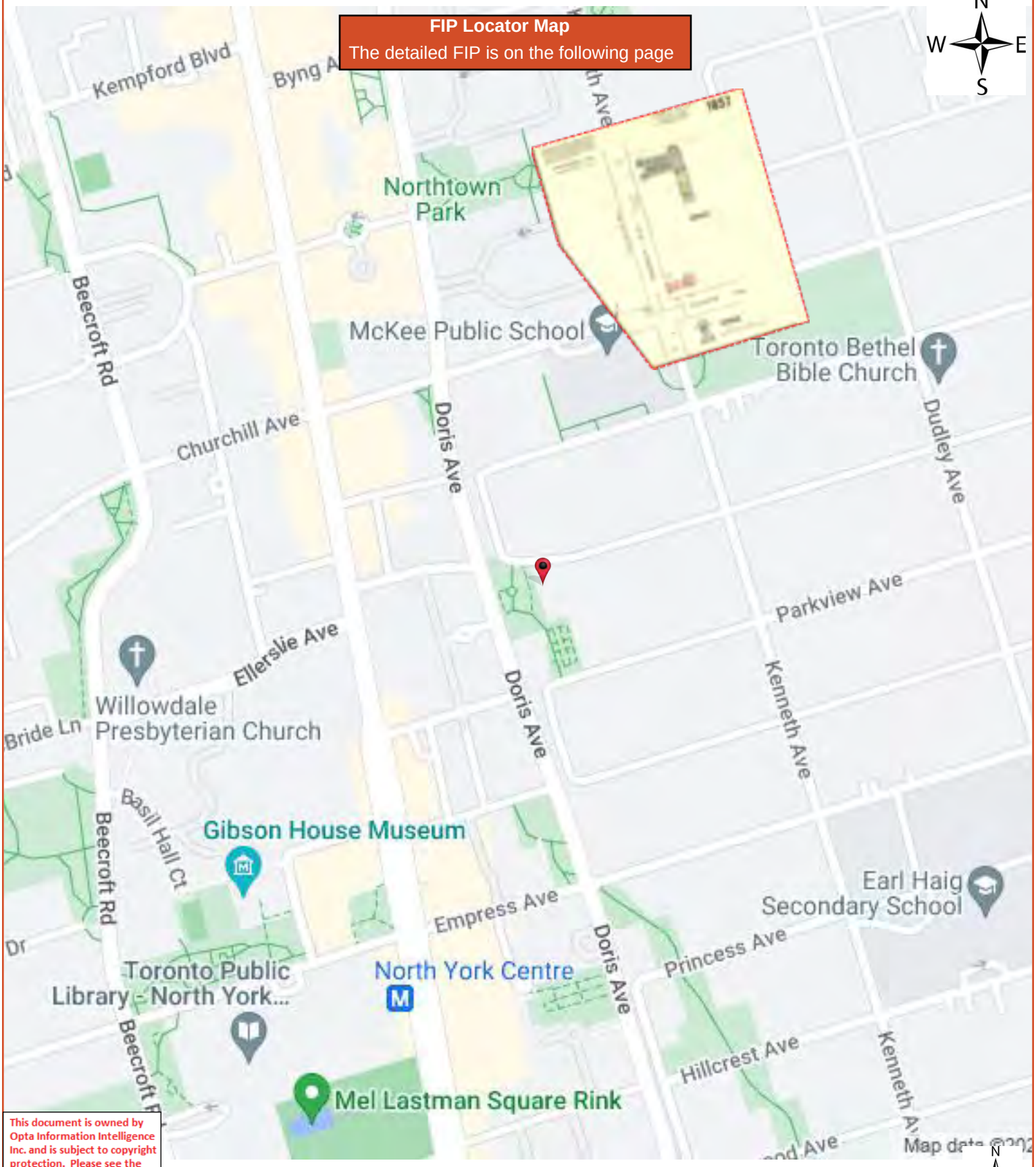


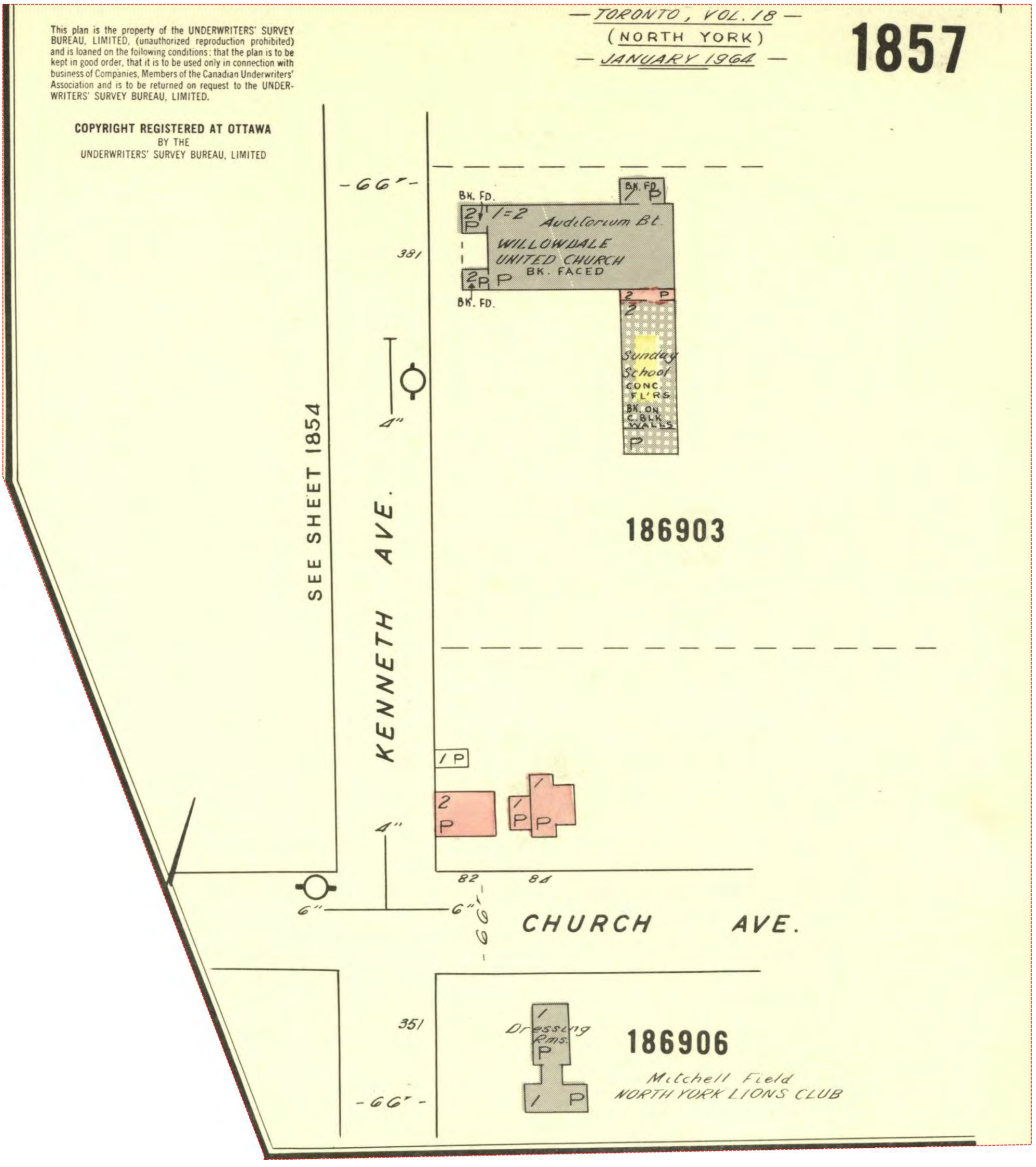
ENVIROSCAN Report

1964 Volume: Toronto 18 Firemap: 1857
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1857 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25

— TORONTO, VOL. 18 —
(NORTH YORK)
— JANUARY 1964 —

1857



Project Name: 37 Norton Avenue

Project #: 22110500001
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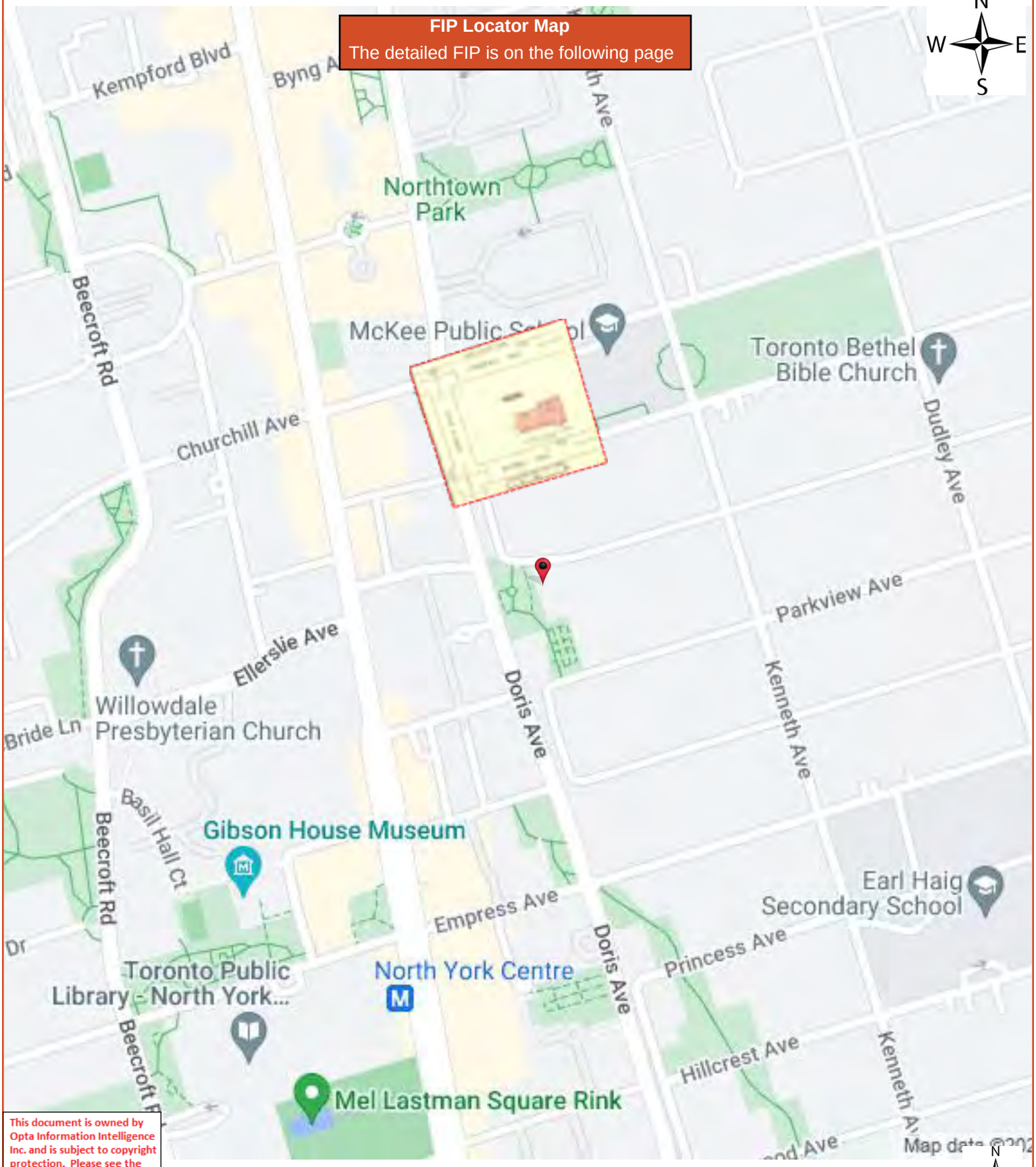

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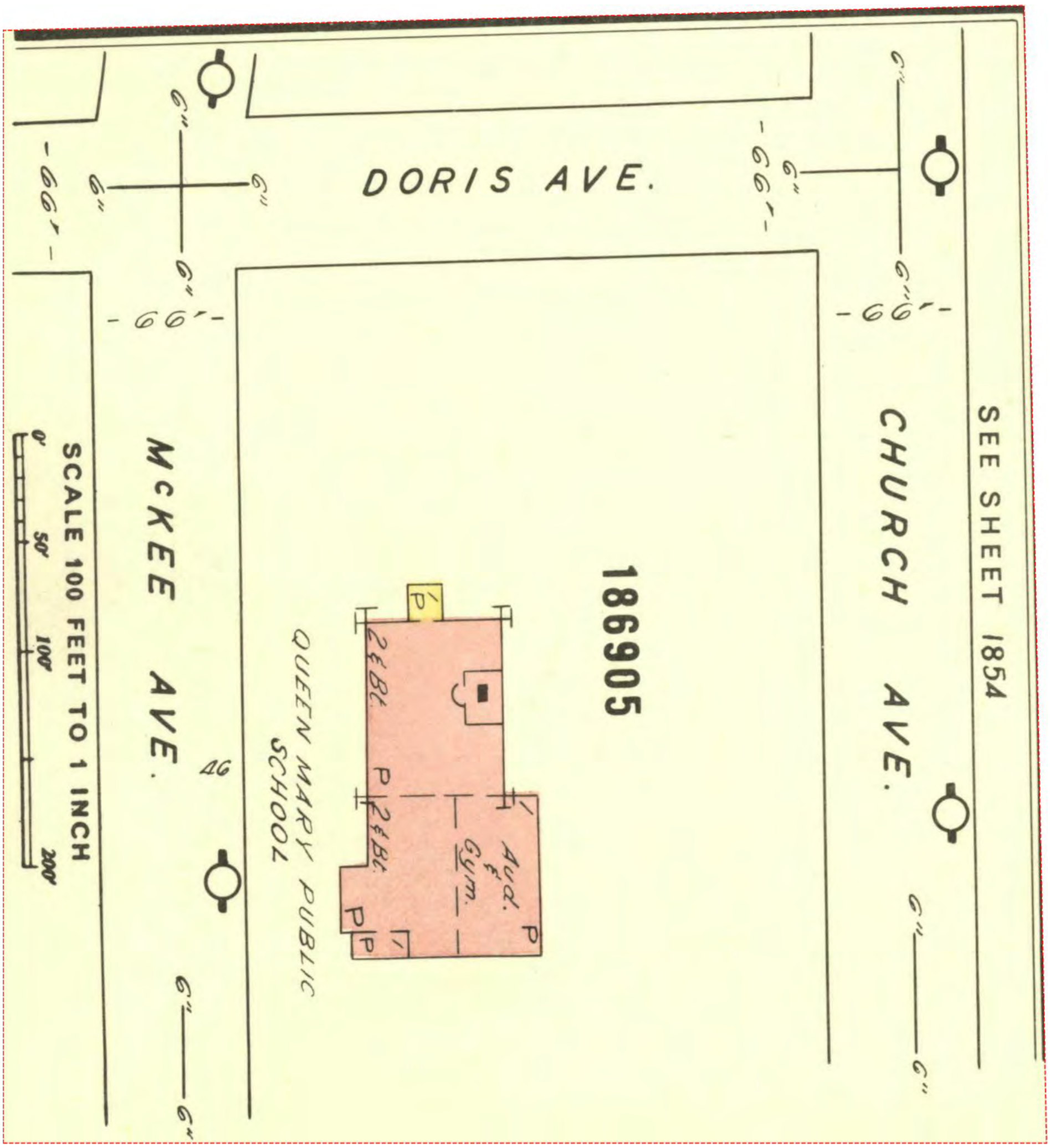
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1857 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25



Project Name: 37 Norton Avenue

Project #: 22110500001
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1964 Volume: Toronto 18 Firemap: 1857
Toronto Volume 18 Plan: 2190 (1964)
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Requested by:
Eleanor Goolab
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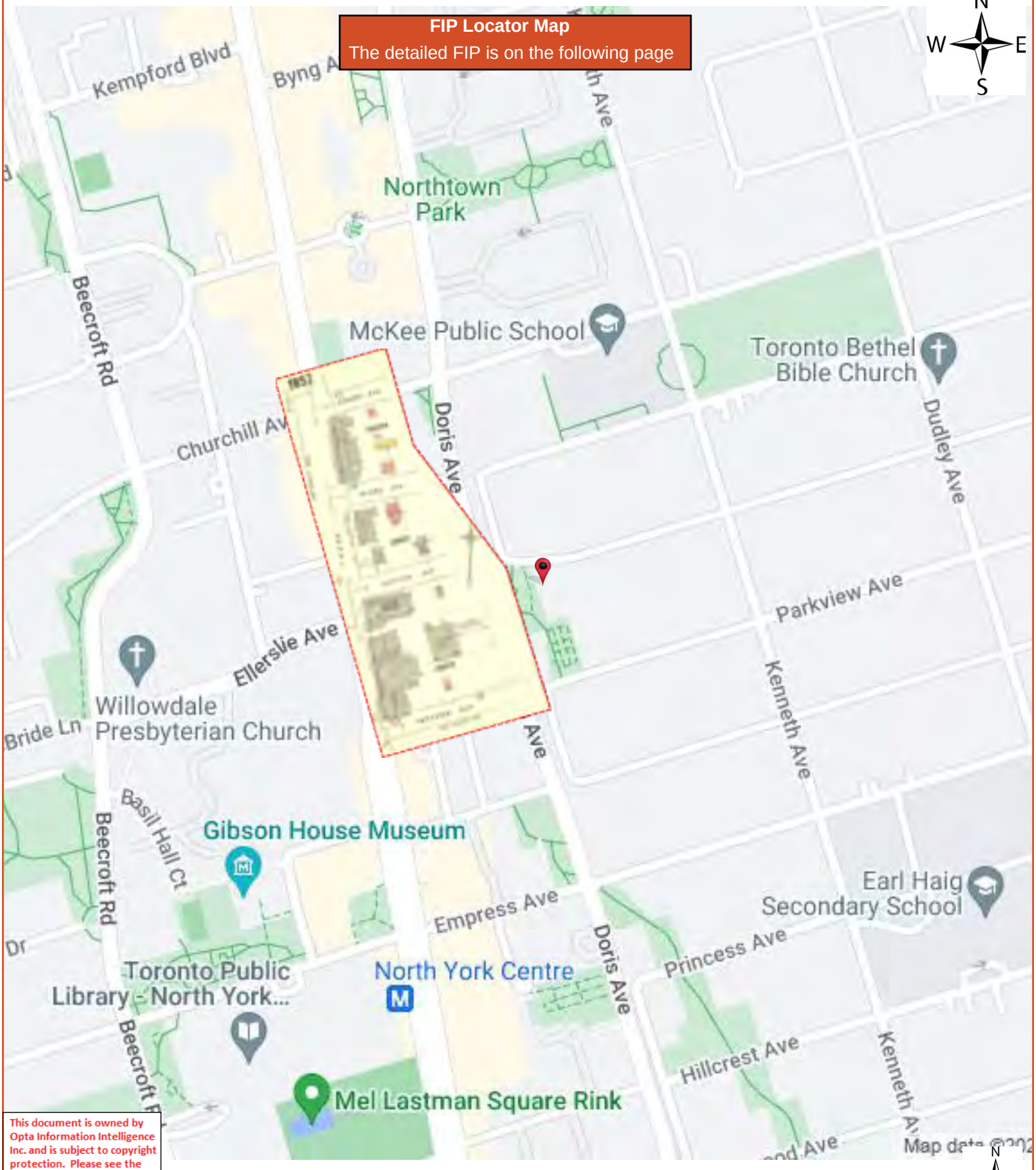
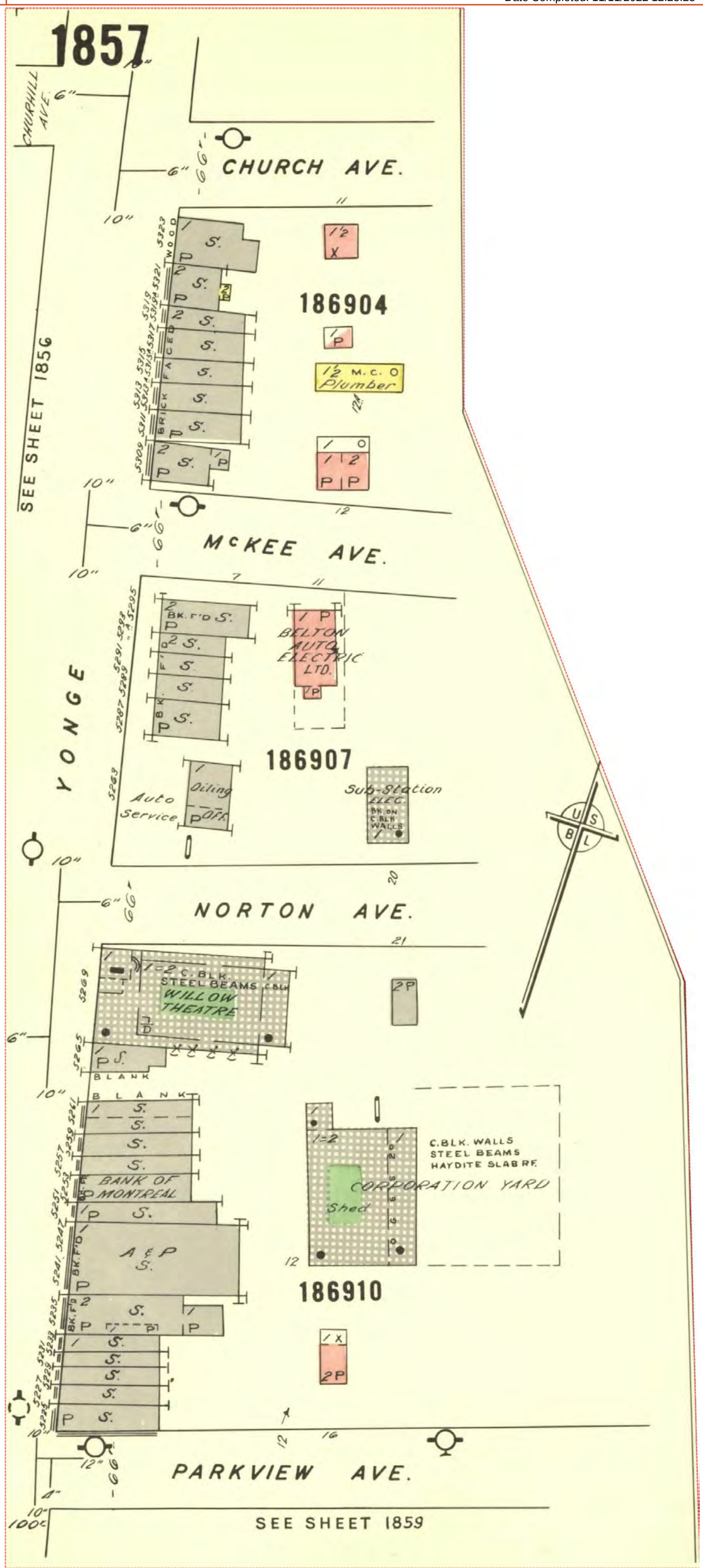


ENVIROSCAN Report

1964 Volume: Toronto 18 Firemap: 1857
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1857 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25

OPTA INFORMATION INTELLIGENCE



Project Name: 37 Norton Avenue

Project #: 22110500001
P.O. #: 12579218

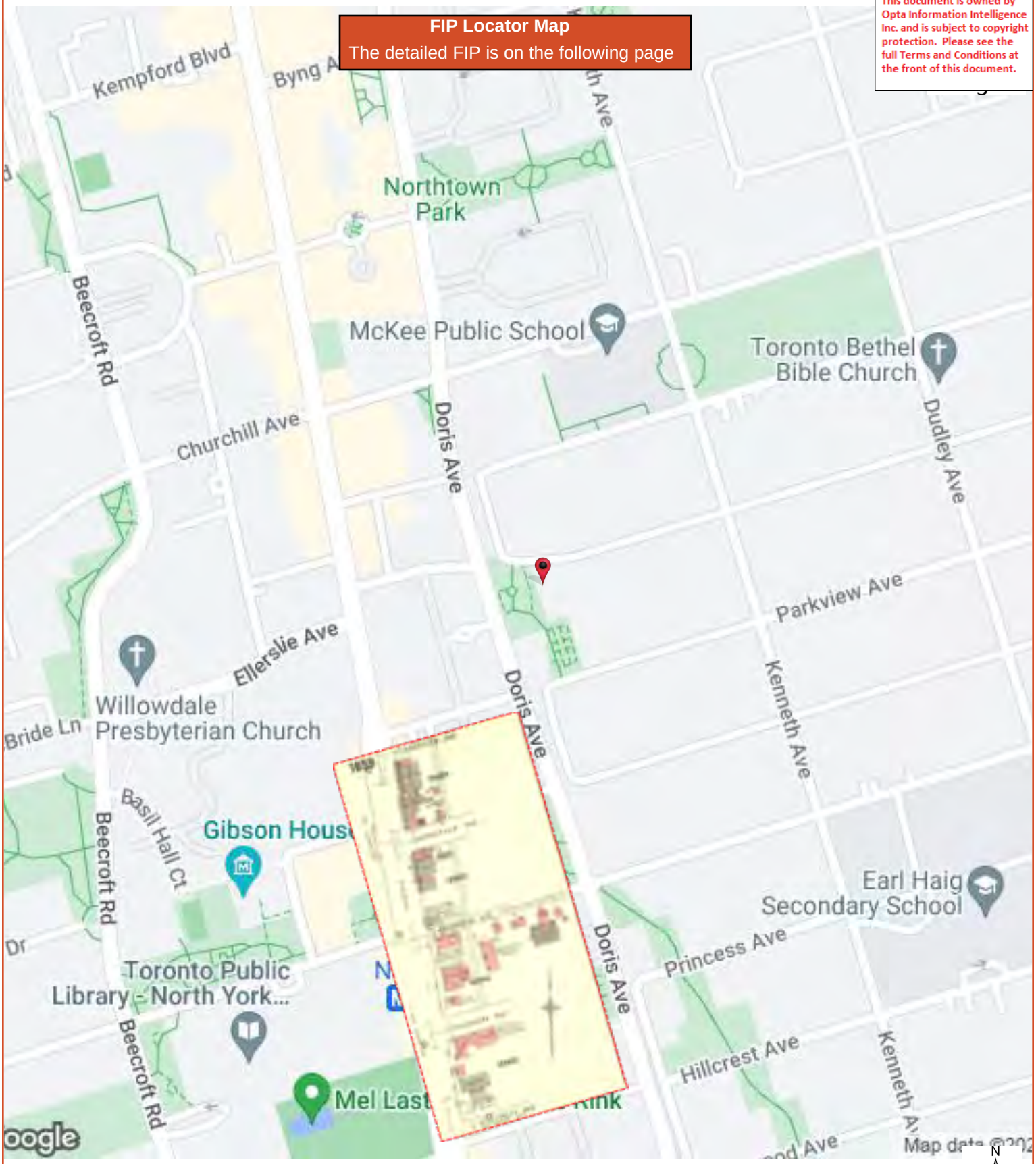
ENVIROSCAN Report

1964 Volume: Toronto 18 Firemap: 1859
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1859 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25

enviroscan
OPTA INFORMATION INTELLIGENCE

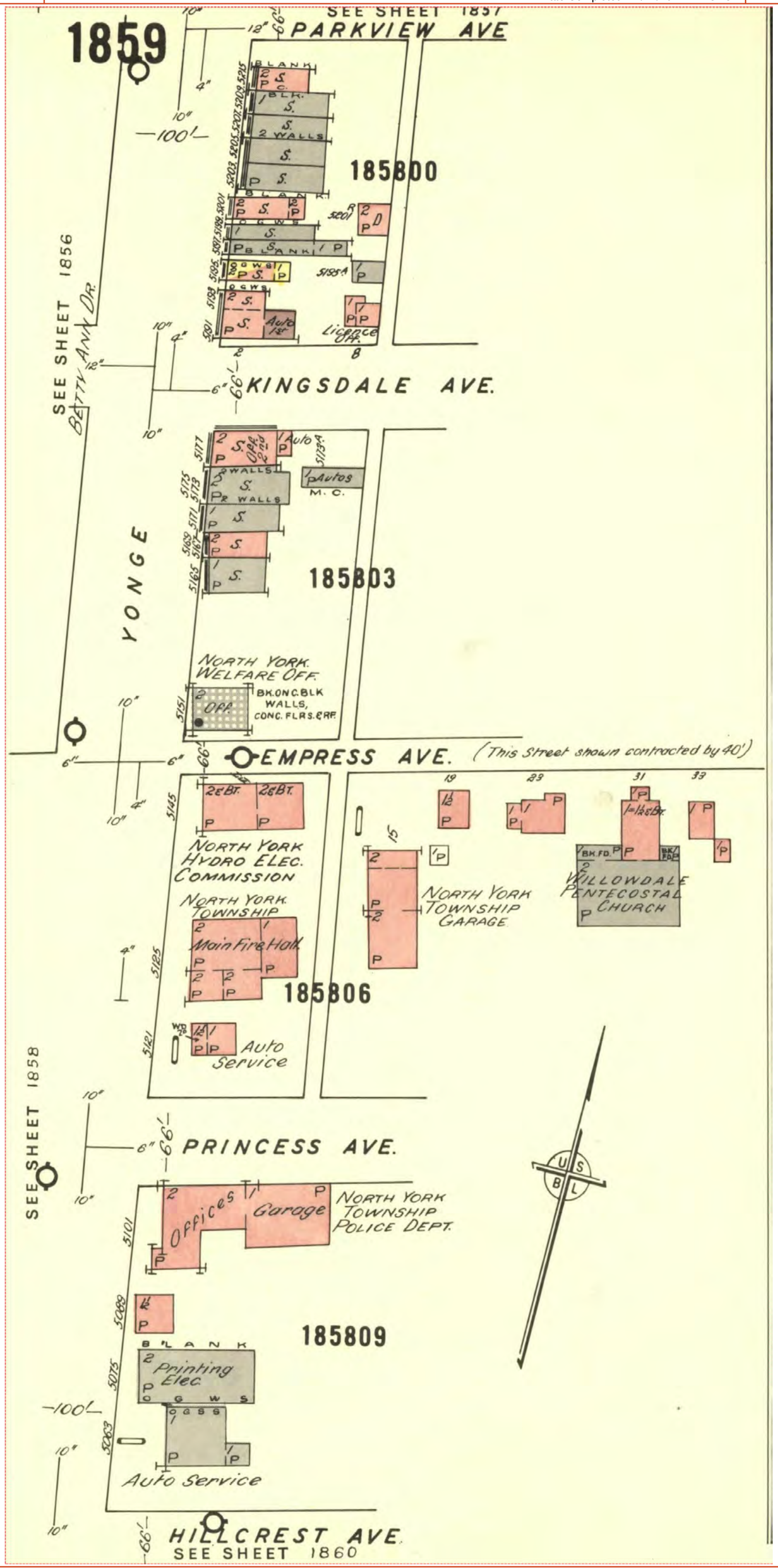
FIP Locator Map
The detailed FIP is on the following page



ENVIROSCAN Report

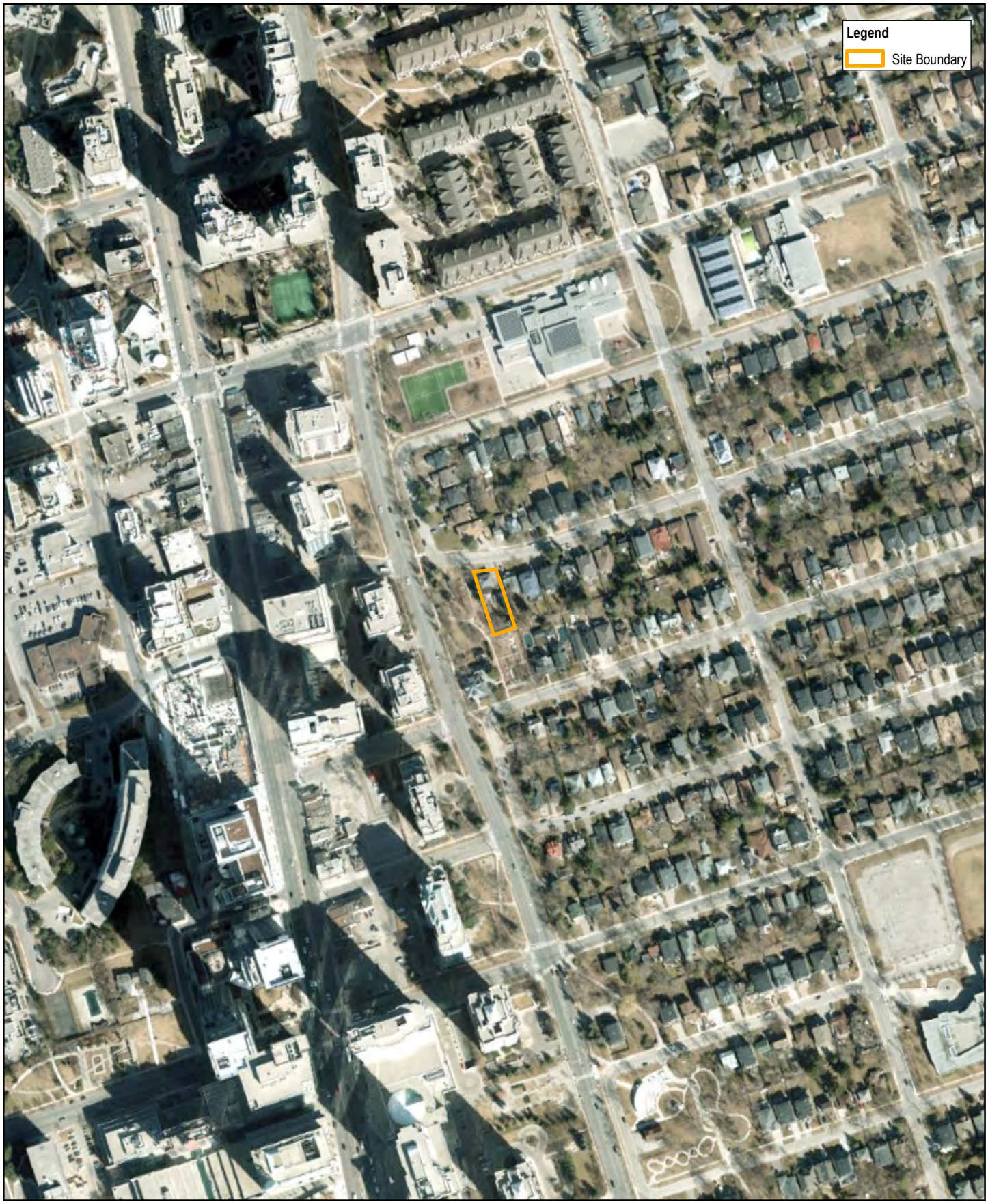
1964 Volume: Toronto 18 Firemap: 1859
Toronto Volume 18 Plan: 2190 (1964)
Sheet: 1859 (1964)

Requested by:
Eleanor Goolab
Date Completed: 11/11/2022 12:25:25



Appendix E

Historical Aerial Photographs



Paper Size ANSI A

0 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

AERIAL IMAGERY – 2019

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Print date: 15 Nov 2022 - 11:19

Data source: ERIS aerial_2019_13000_satellite_2019_2033404

Paper Size ANSI A

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

AERIAL IMAGERY – 1995

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Paper Size ANSI A

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

AERIAL IMAGERY – 1981

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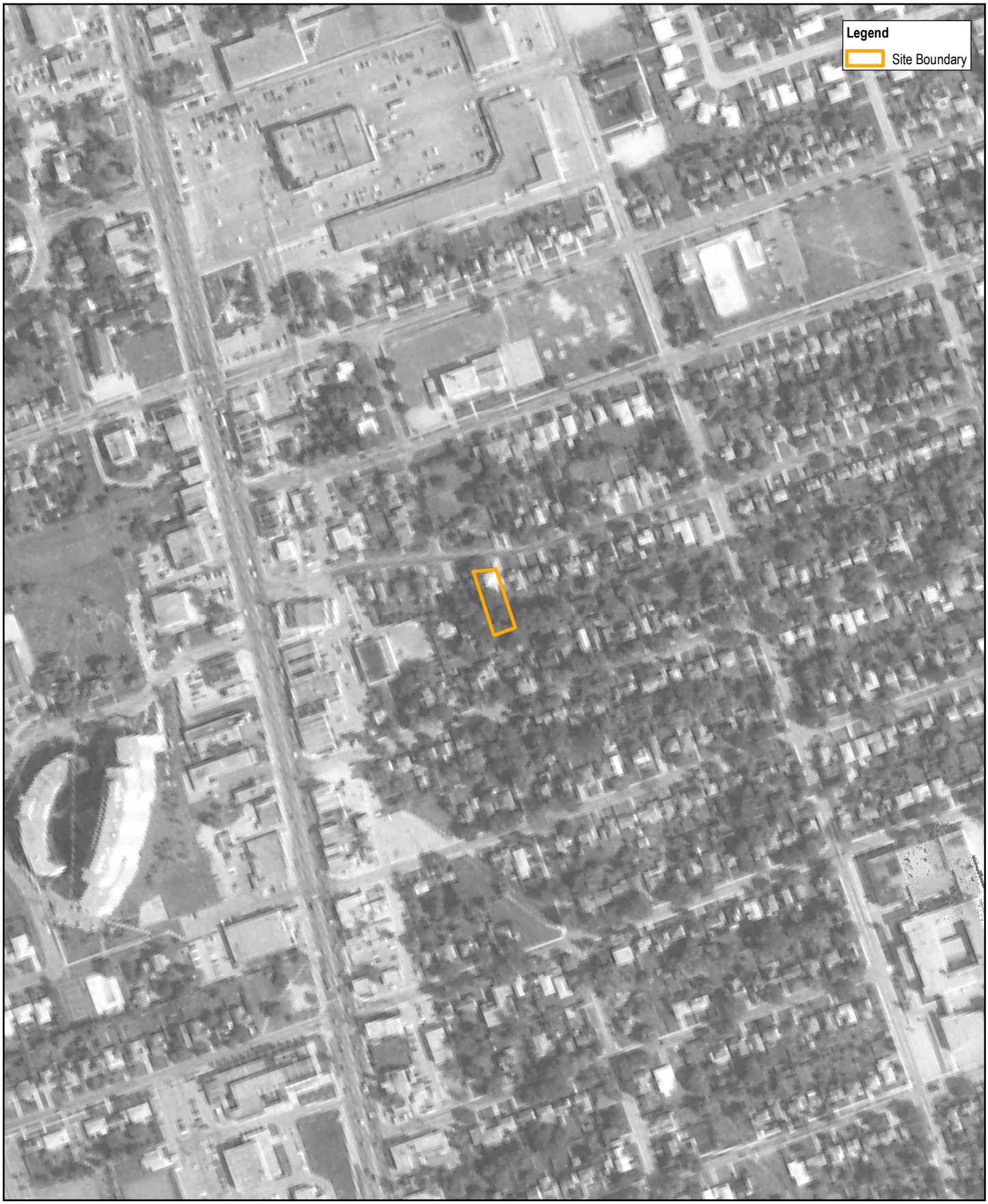

Paper Size ANSI A

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

AERIAL IMAGERY – 1970

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

AERIAL IMAGERY – 1960

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Paper Size ANSI A

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

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CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

AERIAL IMAGERY – 1952

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Paper Size ANSI A

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

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CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

AERIAL IMAGERY – 1946

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Paper Size ANSI A

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N

N

GHD

CITY OF TORONTO
37 NORTON AVENUE, NORTH YORK, ONTARIO
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Project No. **12594791**
Revision No. **-**
Date **Nov 15, 2022**

AERIAL IMAGERY – 1939

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Print date: 15 Nov 2022 - 12:55

Data source: ERIS aerial_1939_20000_A6589_24.tif

Appendix F

Site Photographs

Site Photographs

Photo 1 View of the Site at 37 Norton Avenue, looking south (November 9, 2022)

Photo 2 View of the western exterior of the Site, looking southeast (November 9, 2022)

Site Photographs

Photo 3 *View of the Site at 37 Norton Avenue, looking south (November 9, 2022)*

Photo 4 *View of the Site at 37 Norton Avenue, looking south (November 9, 2022)*

Site Photographs

Photo 5 *View of a shed located on the central-eastern exterior portion of the Site, looking northeast (November 9, 2022)*

Photo 6 *View of a shed located on the southeastern portion of the Site, looking south (November 9, 2022)*

Site Photographs

Photo 7 *View of south adjacent land use (November 9, 2022)*

Photo 8 *View of the southeastern exterior of the Site and the eastern access door, looking northwest (November 9, 2022)*

Site Photographs

Photo 9 *View of the garage on the southeastern exterior portion of the Site, looking south (November 9, 2022)*

Photo 10 *Interior view of the gargage located on the southeastern portion of the Site (November 9, 2022)*

Site Photographs

Photo 11 *View of east adjacent land use along Norton Avenue, looking east (November 9, 2022)*

Photo 12 *View of Norton Avenue and land use further west of the Site, looking northwest (November 9, 2022)*

Site Photographs

Photo 13 *View of east adjacent land use (John McKenzie Parkette), looking south (November 9, 2022)*

Photo 14 *View of fuel oil AST located in the southeastern portion of the basement of the main house (November 9, 2022)*

Site Photographs

Photo 15 *View of main house basement (November 9, 2022)*

Photo 16 *View of main house basement (November 9, 2022)*

Site Photographs

Photo 17 *View of a room located in main house basement (November 9, 2022)*

Photo 18 *View of a room located on the first floor of main house (November 9, 2022)*

Site Photographs

Photo 19 *View of a room located on the first floor of main house (November 9, 2022)*

Photo 20 *View of hallway and staircase in main house (November 9, 2022)*

Site Photographs

Photo 21 View of a room (former kitchen) located on the first floor of main house (November 9, 2022)

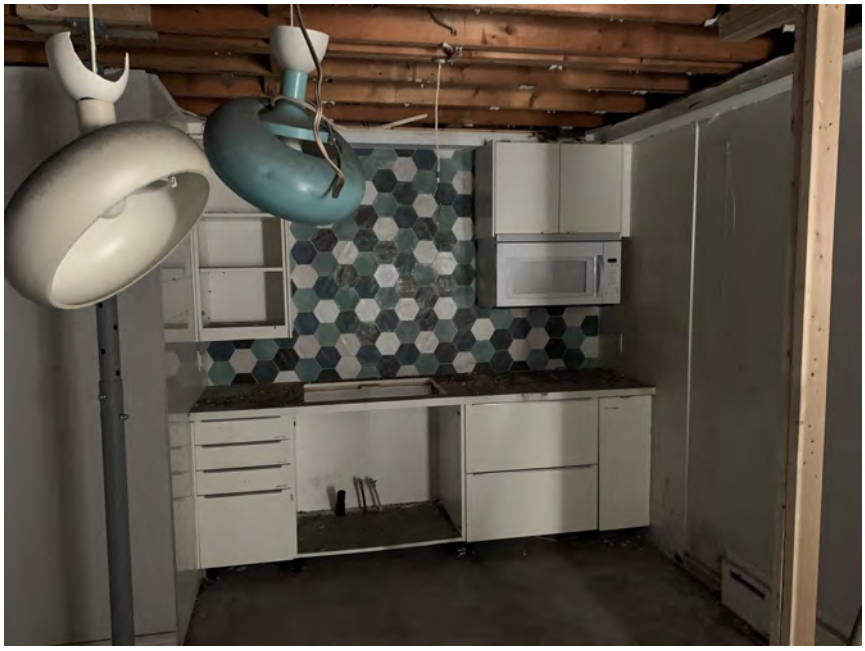


Photo 22 View of a room (former kitchen) located on the first floor of the building addition, located on the southern portion of the main house (November 9, 2022)

Site Photographs

Photo 23 *View of fire damage located on the second floor of the building addition (November 9, 2022)*

Photo 24 *View of southern portion of the Site (backyard), looking south (November 9, 2022)*

Site Photographs

Photo 25 *View of fire damage located on the second floor of the building addition (November 9, 2022)*

Photo 26 *View of a room located on the second floor of the main house (November 9, 2022)*

Site Photographs

Photo 27 *View of hallway located on the second floor of the main house (November 9, 2022)*

Photo 28 *View of a room located on the second floor of the main house (November 9, 2022)*

Site Photographs

Photo 29 View of hallway located on the second floor of the main house (November 9, 2022)

Photo 30 View of the attic (November 9, 2022)

Appendix G

Regulatory Agency Record

From:	Public Information Services
To:	Chanel McMahon
Subject:	RE: UST Record Search Request - 37 Norton Avenue, North York, ON
Date:	Monday, December 19, 2022 8:03:09 AM
Attachments:	image006.png image007.png image008.png image009.png image010.png image011.png

---

Please refrain from sending documents to head office. The Public Information (PI) team works remotely, mailing in applications will lengthen the overall processing time.

NO RECORD FOUND IN CURRENT DATABASE

Hello,

Thank you for your request for confirmation of public information. TSSA has performed a preliminary search of TSSA's current database.

- We confirm that there are no records in our current database of any fuel storage tanks at the subject address(es).

This is not a confirmation that there are no records in the archives. For a further search in our archives, please submit an application for release of public information (PI Form) through TSSA's new Service Prepayment Portal. The associated fee must be paid via credit card (Visa or MasterCard) through a secure site.

Please follow the steps below to access the new application(s) and Service Prepayment Portal:

1. Click Release of Public Information - TSSA and click "need a copy of a document";
2. Select the appropriate application, download it and complete it in full; and
3. Proceed to page 3 of the application and click the link TSSA Service Prepayment Portal under payment options (the link will take you the secure site to pay for the release via credit card).

Accessing the Service Prepayment Portal:

1. Select new or existing customer (*if you are an existing customer, you will need your account # & postal code to access your account);
2. Select the program area: AD (Amusement Devices), BPV (Boilers and Pressure Vessels), ED (Elevating Devices), FS (Fuels Services), OE (Operating Engineers) or SKI (Ski Lifts) and click continue;
3. Enter the application form number (obtained from bottom left corner of application form) and click continue;
    a. When selecting the application form number from the drop-down menu, please make sure you select the application that begins with "PI" (i.e. PI-FS, PI-BPV etc.);
4. Complete the primary contact information section;
5. Complete the fees section;
6. Upload your completed application; and
7. Upload supporting documents (if required) and click continue.

Once all steps have been successfully completed, you will receive your receipt via email.
Questions? Please contact TSSA's Public Information Release team at publicinformationservices@tssa.org.
Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind Regards,
Kim

Public Information Agent
Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-6222 | Fax: +1-416-734-3568 | E-Mail: publicinformationservices@tssa.org
www.tssa.org

From: Chanel McMahon <Chanel.McMahon@ghd.com>
Sent: December 18, 2022 9:29 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: UST Record Search Request - 37 Norton Avenue, North York, ON

Good day,

GHD would like to request a search of the TSSA's tank registry for any records pertaining to the following address:

37 Norton Avenue, North York, ON

Many thanks,

Chanel McMahon, B.Sc.
Environmental Scientist

GHD | **ghd.com**
455 Phillip St Waterloo Ontario N2L 3X2 Canada
D +1 289 374 3815 **M** +1 905 302 4616 **E** chanel.mcmahon@ghd.com

→ **The Power of Commitment**

Connect

Please consider the environment before printing this email

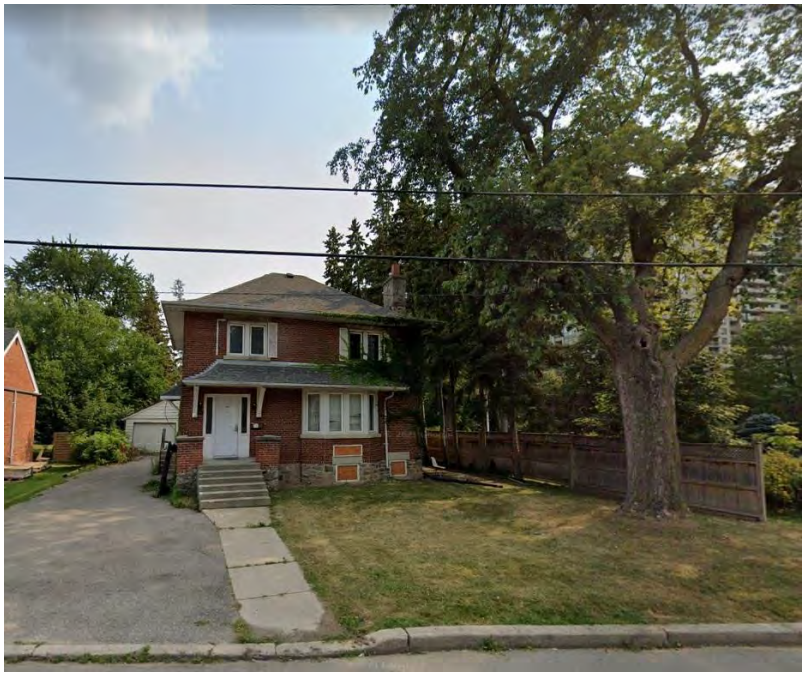

GHD

APPENDIX E

Arborist Report / Tree Protection Inventory Plan

Arborist Report / Tree Protection& Inventory Plan

For: 37 Norton Avenue, North York, Ontario



Prepared by:

Green-WHY Landscape Inc.

Revised Date:

July 18, 2023

GREEN-WHY

TABLE OF CONTENTS

Summary

Total 11 trees (1 City-owned tree, 9 trees on the subject property and 1 neighbours' tree.) and 1 group trees were qualified to record. No tree will be removed. 2 trees will be injured per existing building demolishing. Other trees will be protected during the construction period.

1.0 Introduction

The property owner of 37 Norton Avenue, North York, ON, proposes to demolish the existing house. Green-WHY Landscape Inc. was retained by the property owner to prepare an Arborist Report and Tree Preservation Plan as required by the City of Toronto.

The objective of this report is to ensure the proposed development is in compliance with the City of Toronto Municipal Code, Chapter 813.

This Report performs the following:

- Evaluates the trees within the property that may be impacted.
- Evaluates the trees on adjacent lands that may be impacted.
- Determines the necessary remediation to permit the preservation of trees suitable for retention.
- Determines which trees are to be removed.

A site visit was conducted on April 17, 2023, at the subject site.

2.0 Method of Evaluation

The subject property is governed by the City of Toronto Municipal Code, Chapter 813.

- In accordance with City of Toronto Municipal Code, Chapter 813, Article III, 'Private Tree Protection', within the property boundary, trees greater than 30cm DBH are to be protected.
- In accordance with City of Toronto Municipal Code, Chapter 813, Article II, 'Trees on City Streets', all trees on Toronto Road Allowance areas are to be protected.
- In accordance with City of Toronto Municipal Code, Chapter 813, Article III, 'Private Tree Protection', each tree greater than 30cm DBH on adjacent private lands, within 6m of construction activities are protected and require assessment.

Each tree location and associated identification number is denoted on *Drawing TPP* for ease of reference. The trees were measured for DBH (Diameter at Breast Height) 1.4m above grade and for approximate height in metres.

The trees were assessed in accordance with the International Society of Arboriculture Methodology, by visual inspection from ground locations only. The tree was not climbed, nor was

invasive assessment techniques (trunk boring) employed. The tree inventory and observations are summarized in Appendix A.

Assessment:

● Vegetation is assessed based on a visual inspection of the trunk and branch condition, structure, foliage condition, and evidence of abiotic (environmental, mechanical and physical damage) and biotic (insects and disease) stressors.

Condition:

Tree health and condition is evaluated as poor, fair or good:

● Poor - Considerable dieback, contorted growth, diseased, or extensive physical damage, root damage, decay, cavities and presence of secondary agents (harmful insects) that aid in the decline of the tree. The plant may have reached its normal life expectancy.

● Fair - some dieback, signs and symptoms of stress both by non-living and living agents, aesthetic value is compromised; however, tree continues to show healthy growth.

● Good - healthy, vigorous growth, strong branch attachment and taper, no signs or symptoms of stress.

3.0 Vegetation Summary

3.1 Trees on the Subject Property

9 private trees (T1~T9) and 1 group trees (G1) were found on the subject property, the species including Maple and Spruce. 1 tree (T5) was in poor condition. Other trees were in fair condition.

3.2 City's Tree

1 City's tree (C1) was found on the City's property. the silver maple tree was in fair condition.

3.3 Neighbour's Tree

1 Neighbour's tree (N1) was found within 6M to the subject property, Norway maple was in fair condition.

4.0 Plant Valuation Process

4.1 Study Criteria:

The composition of individual trees and tree grouping were analyzed utilizing the following categories;

- Common and Botanical Classification

- General Health
- Size
- Species Potential for Preservation in an Urban Situation
- Site Potential to Support Vegetation given proposed grading and drainage changes.

Taking all the above factors into consideration a recommendation for preservation or removal was given.

4.2 Removal & Preservation Recommendations

Trees will not thrive, if major disruptions occur in their micro-environment. Changes in grade, drainage and wind pattern can all contribute to their decline and eventual death. This can result in very costly removal fees once homes have been built around the trees. Therefore, extreme care must be taken with any trees scheduled for preservation. To remove trees prior to construction is cost effective, but where possible every effort should be made to preserve trees. The decision to preserve trees must be coupled with sound arboriculture methods to ensure the long-term health and survival of preserved trees.

A. Trees recommended for removal

According to the proposed site plan, no tree will be removed during the demolishing period. All 11 trees will be protected or remain during the demolishing period.

B. Tree recommended for preservation

City's tree (C1), private trees (T1~ T9 & G1) and neighbour's tree (N1) will be protected during the construction period.

The tree protection hoardings are indicated on drawing TPP, orange snow web will be applied to City's tree (C1) on the City's property. solid plywood hoarding will be applied for the other trees. Tree protection hoardings should be 1.2m(4ft) high.

According to the proposed site plan, demolishing existing garage and shed will encroach into the TPZ (Tree Protection Zone) of trees (T6& T9). The encroachments are 1.67M & 2.14M at their biggest extents and encroach areas are 30% & 37% of the TPZ's areas. The impacts to trees (T6& T9) are minor without excavation, they won't cause severe or fatal damages, the 2 trees (T6& T9) can be retained, however the 2 trees (T6& T9) need to be protected with tree protection hoardings during the construction stage.

For better protection & to minimize impact to trees (T6& T9), the following protection measures shall be taken by the property owner & contractor:

- Firstly, install the tree protection hoardings as indicated on the drawing TPP;
- All the work within the TPZ should be done by hand tools, such as, removal the foundation base; restored the adjacent area with top soil & sod;
- Always keep the tree protection hoardings in place during the construction period;

- Remove any debris immediately away from the tree protection zone;
- Heavy construction machine & vehicle should be kept away from the tree protection zone of the trees (T6& T9);
- Removing existing structure with hand tools only;

For protecting trees (T1~T3) and group trees (G1), retaining the existing dwelling foundation below grade, and removing the above grade portions of the dwelling only. Those trees (T1~T3 & G1) can be protected without being disturbed.

5.0 Assumptions & Limitations

This assessment and evaluation are limited to the assignment and purpose as stated within the Introduction.

The assessment has been conducted using visual examination of only the above ground parts of trees. Unless specifically noted trees were not cored, probed, sounded or climbed. Parts of the trees below ground, unless specifically noted, were not inspected nor exposed by excavation for assessment.

Trees are living organisms that respond individually to outside influences such as climate, biotic changes and abiotic changes. As such, this assessment is limited to the observations made at the time of inspection.

Every reasonable effort has been made to ensure the accuracy of the assessment, within Arboriculture Industry accepted practices; however no guarantees are offered or implied that the trees and their parts will remain standing or alive.

On behalf of Green-WHY Landscape Inc.

Jun Tang

ISA Certified Arborist ON-2085A

Appendix A:

Tree ID #	Botanical Name	Common Name	Quantity	DBH(cm)	TPZ (M)	Health Condition	Action
City's Tree							
C1	*Acer saccharinum*	Silver Maple	1	94	6.0	Fair	Protect
Trees On The Subject Property							
T1	*Picea glauca*	White Spruce	1	35	2.4	Fair	Protect
T2	*Picea glauca*	White Spruce	1	34	2.4	Fair	Protect
T3	*Picea glauca*	White Spruce	1	39	2.4	Fair	Protect
T4	*Acer platanoides*	Norway Maple	1	30	2.4	Fair	Protect
T5	*Acer negundo*	Manitoba Maple	1	32	2.4	Poor	Protect
T6	*Picea glauca*	White Spruce	1	32	2.4	Fair	Injury
T7	*Picea glauca*	White Spruce	1	36	2.4	Fair	Protect
T8	*Picea glauca*	White Spruce	1	28	1.8	Fair	Protect
T9	*Picea glauca*	White Spruce	1	32	2.4	Fair	Injury
G1	*Picea glauca*	White Spruce	6	22~26	1.8	Fair	Protect
Neighbour's Tree							
N1	*Acer platanoides*	Norway Maple	1	45	3.0	Fair	Protect

Appendix B: Photos

Photo 1: City's tree (C1) on the City's property.

Photo 2: Group trees (G1).

Photo 3: Trees (T1~ T3).

Photo 4: Tree (T4) on the rear yard.

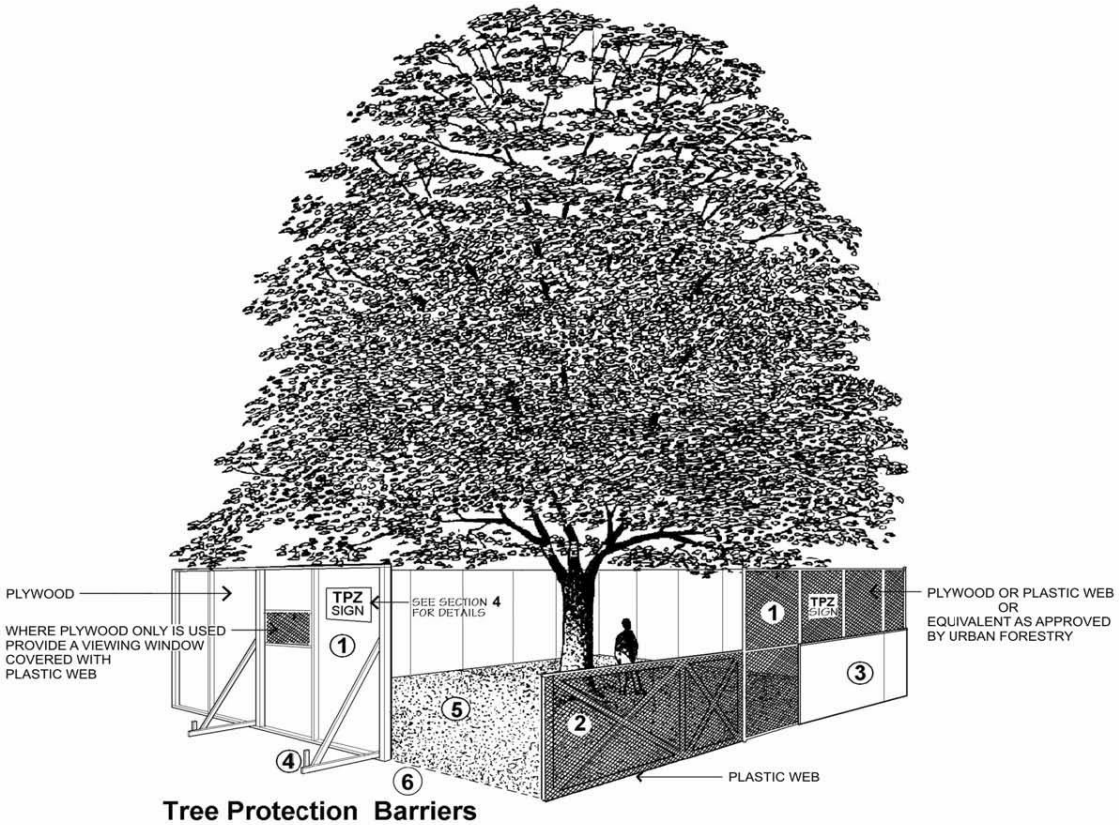
Photo 5: Tree (T5) on the rear yard.

Photo 6: Tree (T6) on the rear yard.

Photo 9: Trees (T7~ T9) on the rear yard.

Photo 10: Neighbour's tree (N1).

Appendix C:

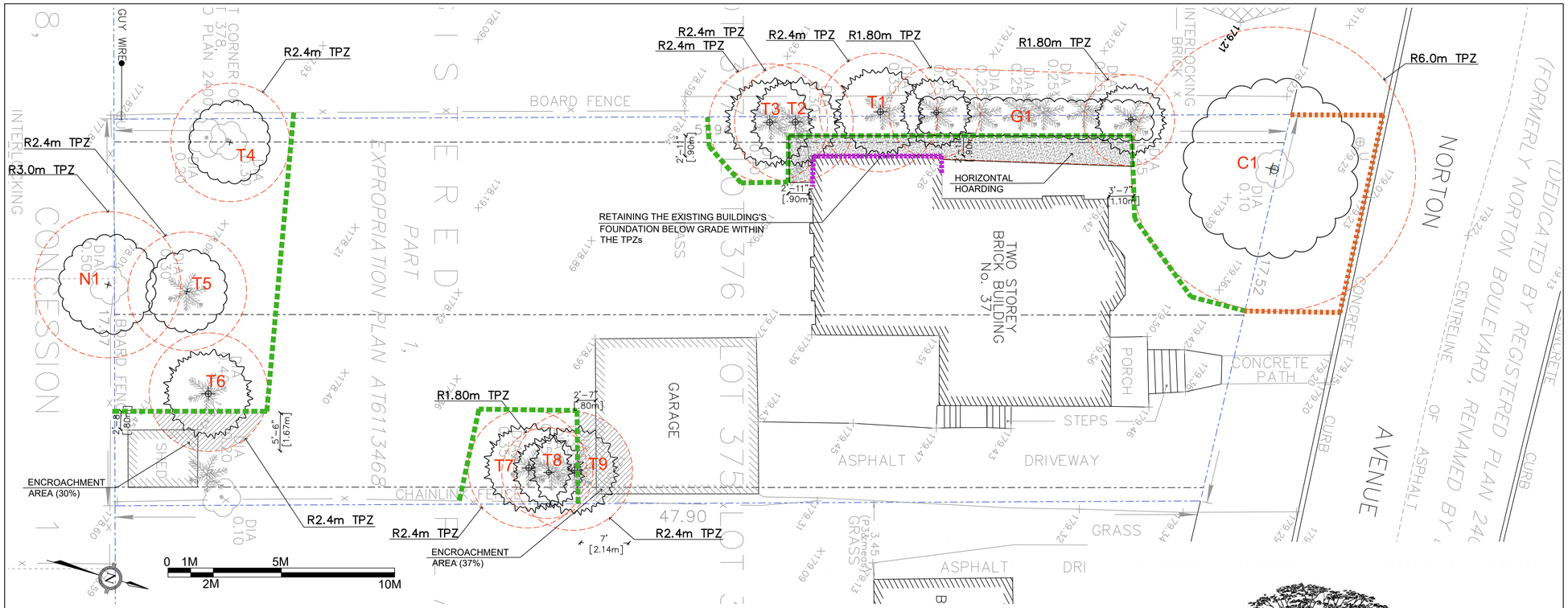


Tree Protection Barriers

1. **Tree protection barriers must be a plywood or plastic web hoarding or equivalent as approved by Urban Forestry.**
2. **Tree protection barriers for trees situated on the City road allowance where visibility must be maintained can be 1.2m (4ft.) high and consist of orange plastic web snow fencing on a wood frame made of 2"x 4"s .**
3. **Where some excavate or fill has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the Tree Protection Zone.**
4. **All supports and bracing should be outside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.**
5. **No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.**
6. **Sediment control fencing shall be installed in locations indicated in an Urban Forestry approved Tree Protection Plan. The sediment control fencing must be installed to Ontario Provicial Standards (OPSD-219.110) and to the satisfaction of Urban Forestry.**

TORONTO — Parks, Forestry and Recreation

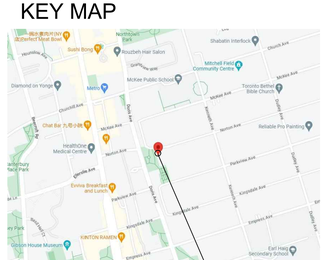
Urban Forestry — Sept 2008 **Detail TP-1**



LEGEND

- T1 — EXISTING DECIDUOUS TREES WITH TAG #
- C1 — EXISTING CONIFEROUS TREES WITH TAG #
- TREE PROTECTION ZONE
- TREE PROTECTION FENCE WITH ORANGE SNOW WEBS
- TREE PROTECTION FENCE WITH SOLID WOOD BOARDS
- LIMIT OF PROPERTY

KEY MAP



TREE INVENTORY CHART

Tree ID #	Botanical Name	Common Name	Quantity	DBH(cm)	TPZ (M)	Health Condition	Action
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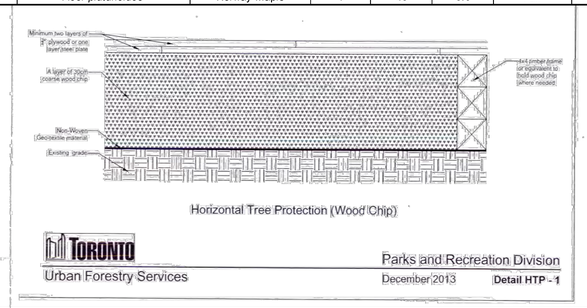

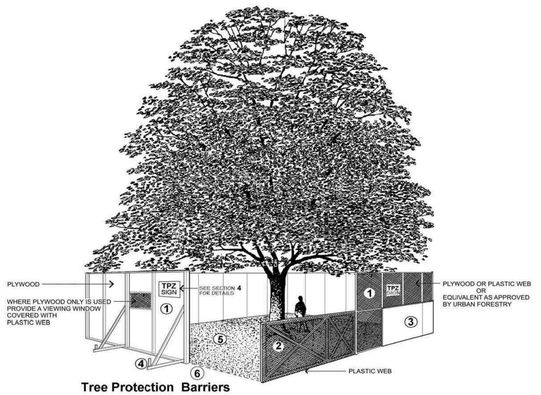

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TORONTO — Parks, Forestry and Recreation
Urban Forestry — Sept 2008 — **Detail TP-1**

NO.	ISSUE	DATE
1	ISSUED FOR APPROVAL	2023-04-27
2	REVISED PER CITY'S COMMENTS	2023-07-18

GREEN-WHY LANDSCAPE INC.
308 SUSSEX AVE. RICHMOND HILL, ON. L4C 2G7
T: 416.670.3396

ARCHITECT
MEI ASSOCIATES ARCHITECTS
7250 Keele Street, Unit 191, Concord, Ontario L4K 1Z8
T: 416-953-0606, E: info@mei-associates.com

RESIDENCE
37 Norton Avenue.
North York, ON

TREE PROTECTION / INVENTORY PLAN

PROJECT NUMBER:

DRAWN BY:	CHECKED BY:
TJ	SW
DATE:	SCALE:
July 18, 2023	1:200 on 11X17

DRAWING NUMBER:

TPP

Demolition
223 Gladys Allison Place
Project No.: 22007

APPENDIX F

Vibration Control Assessment Report

ORBITENGINEERING
Consulting Engineers

VIBRATION CONTROL ASSESMENT REPORT

37 Norton Ave, North York, ON

Prepared for:

City of Toronto

Prepared by:

Orbit Engineering Limited

Project No. OE231465EG

August 11, 2023

1900 Clark Boulevard, Unit 9, Brampton, ON, L6T 0E9
Tel: +1 905 494 0074, Fax: +1 855 666 3355
www.orbitengineering.ca , info@orbitengineering.ca

Orbit Engineering Limited
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www.orbitengineering.ca,
info@orbitengineering.ca

City of Toronto
Parks Development & Capital Projects
55 John St., 24th Floor
Toronto, ON
M5V 3C6
Email: Jeramee.Dimapilis@toronto.ca

Attention: Jeramee Dimapilis, Senior Project Coordinator

Dear Ms. Dimapilis,

RE:

Vibration Control Assessment Report
Proposed Development

Enclosed please find the vibration assessment report related to the above noted site.

For and on behalf of Orbit Engineering Limited,

Hafiz Muneeb Ahmad, M.Sc., M.Eng., P.Eng., QP_{ESA}
Senior Principal Engineer

Email: hafiz.ahmad@orbitengineering.ca

Table of Contents

Appendix

1 INTRODUCTION

Orbit Engineering Limited (Orbit) was retained by City of Toronto (the Client) to provide a preliminary assessment of construction vibration potential impacts for the proposed construction site located at 37 Norton Ave, North York, Ontario.

It is our understanding that existing structures at the site will be demolished for the construction of new development.

Under the City of Toronto By-Law 514-2008, and the related Vibration Control Form, where a construction project will involve drilled caissons/solider piles, as this project will, or any other activity with a potential for vibration impact at offsite structures, a preliminary vibration assessment must be undertaken and a vibration monitoring plan must be developed. This report is intended to address these requirements. The By-Law also requires supplementary preconstruction surveys of surrounding structures (if applicable) and/or the development of communication protocols for discussion with adjacent building owners, and these can be provided by Orbit, if requested.

Representative from Orbit visited the site on August 04, 2023, to have a better understanding of area geometry and assess background vibration levels. The relevant documentation for the proposed development at the project site reviewed, are as follows:

- The subsurface information available for the site was reviewed. This information was presented in the Orbit Engineering Limited report titled “Preliminary Geotechnical Investigation, Proposed Development –., 37 Norton Ave, North York, Ontario” dated May 4, 2023, Project No. OE231465EG.

This report identifies mitigation measures to be incorporated in the construction plan for the site and recommends a monitoring program to be implemented in conjunction with the execution of the construction works.

2 CONFIGURATION

2.1 Site Description

The subject property is located on the south side of Norton Avenue. The municipal address of the property is 37 Norton Avenue in the City of Toronto, Ontario. An approximate site location plan is presented on **Drawing 1.**

2.2 Subject Property

During our site visit on August 04, 20123, an existing two storey residential structure with a shed was present at the project site and is currently in residential land use.

The remaining area on the south of the existing building was generally covered with grass.

2.3 Adjacent Properties

During our site visit, it was observed that the subject property was bounded by:

- The closest structure to the proposed construction area is the existing two storey residential building (39 Norton Avenue) located east of the subject property.
- Norton Avenue is located on the northern limit of the project site.

3 PROPOSED CONSTRUCTION

The proposed construction will include removal of existing asphaltic concrete at the site and demolition of the existing two storey structure. The detail of proposed development is not available at the time of writing this report.

The maximum excavation for the removal of existing basement structure can extend about 3 m below the existing ground surface. It is our understanding that open cut excavation will be generally carried out for new development. The proposed building structure (if applicable) will likely be founded on conventional spread and strip footings, as outlined in the geotechnical investigation report.

4 SOIL AND GROUNDWATER CONDITIONS

Based on the geotechnical investigation carried out Orbit Engineering Limited, it is our understanding that underneath the topsoil/Pavement structure, fill material was encountered in boreholes. The depth of fill in boreholes (BH1- BH3) ranged from 1.5m to 1.8m below the existing ground surface. The explored fill generally consisted of brown, loose to very loose sandy silt and typically in moist condition. Noted that the depth of fill can vary in area of existing structures and/or in previous excavations at the site.

Native deposit was encountered underlying the fill layer in boreholes. The native deposits predominantly consisted of wet, brown and compact to very dense sand and silt till with some clay & trace gravel. The native deposits turned grey towards the lower depths varying from 5m-6m.

During drilling and at the completion of drilling, the short term (not stabilized) groundwater was observed in boreholes (BH1-BH3) at approximate depths of 1.5m to 2.3m. A perched water condition may occur due to the accumulation of surface water at the interface of fill and native deposits. It should be noted that groundwater levels vary and are subjected to seasonal fluctuations and can respond to major precipitation events. The depth of groundwater table can also be influenced by the presence of underground features such as utility trenches.

5 REQUIREMENTS UNDER THE CITY OF TORONTO BY-LAW

A construction site is required to comply with the city regulations of construction and pre-construction assessment.

The City of Toronto By-Law **514-2008** (Amendment to the City of Toronto Municipal Code Chapter 363, Building Construction and Demolition, with respect to regulations of vibrations from construction activity) came into force on July 26th, 2008. The By-Law has a number of important requirements, as follows:

a) Construction vibrations exceeding certain values are prohibited.
b) A "Zone of Influence" (ZOI) must be established. The ZOI is the area outside of which construction vibrations does not exceed 5 mm/s at any frequency.
c) A "Vibration Control Form" must be prepared and submitted.
d) A vibration monitoring programme must be developed.
e) Where buildings or structures are identified inside the Zone of Influence, various consultation, inspection, and communications protocols and processes are required.

Under the City of Toronto By-Law **514:2008**, and the related Vibration Control Form, where a construction project will involve drilled caissons/solider piles or any other activity with a potential for vibration impact at off-site structures, a preliminary vibration assessment must be undertaken and a vibration monitoring plan must be developed. This report is intended to address these requirements. The By-Law also requires supplementary preconstruction surveys of surrounding structures (if applicable) and/or the development of communication protocols for discussion with adjacent building owners, and these can be provided by Orbit, if requested.

Vibration can be defined in terms of particle displacement, velocity, or acceleration. The three descriptors are related by the respective vibration amplitude and by the frequency of oscillation. Particle velocity and frequency of ground vibration are generally identified as indicative parameters that influence the damage potential on structures. The vibration level is quantified either in terms of the root-mean-squared (RMS) level or the peak level. In this report, vibration is consistently described in terms of peak particle velocity (PPV), in units of mm/s. Vibration frequency is described in units of cycles-per-second or Hertz (Hz).

In the City of Toronto, all vibrations resulting from construction activities must comply with the City of Toronto Guidelines. **Table 1** below shows the maximum allowable vibrations limits as defined by the City of Toronto Guidelines. Our interpretation of the by-law is that these criteria do apply at any neighboring structure, and not necessarily at the property line.

Table 1: City of Toronto By-Law "Prohibited Construction Vibrations"

Frequency (Hz)	Peak Particle Velocity (PPV) [mm/sec]
Less than 4	8

From 4 to 10	15
More than 10	25

The by-law indicates that in some cases, more stringent criteria will be or may be appropriate, but leaves the identification of these cases, and the selection of the appropriate criteria to the Professional Engineers associated with the project.

5.1 Other Considerations

Other types of vibration criteria, intended to assess the potential for human annoyance rather than for structural damage, are available from the Ontario Ministry of the Environment and ISO standards. Another aspect vibration is radiated noise. When the frequency of the vibration is high, above about 30 Hz, it has the potential to be transmitted into adjacent buildings and radiated by the building surfaces as audible noise. This is most likely to be a factor when work is done on hard materials such as buried bedrock, which is not anticipated for general excavations in this case.

Criteria for annoyance are more stringent than for possible structural damage. It should be noted that the City by-law does not impose any limits on imperceptible (or inaudible) vibration levels at adjacent facilities or residences.

Considering all of the above, the recommended cautionary vibration criteria are summarized in Table 2 below.

Table 2: Suggested Cautionary Vibration Criteria

Structure	Peak Particle Velocity (PPV) [mm/sec]	Frequency (Hz)
Residential Buildings	5	Any
Commercial Buildings (if applicable)	8	Any
Buried Services (if applicable)	8	Any

6 VIBRATION ASSESSMENT

Prior to construction, demolition activities will be required; this would include the removal of some of the concrete pavement structures and demolition of the existing two-storey building. No specific information regarding what equipment will be used in the demolition works has been provided at the time of preparation of this report, but it has been assumed that medium to high range RPM concrete cutting equipment as well as hand pneumatic breaking equipment will be employed.

Based on the information provided to Orbit through drawings, the maximum excavation in the construction areas for the proposed development will extend approximately 3 m below the existing ground surface. The excavations

will be carried out in fill deposits, native silty and sandy deposits, generally above the stabilized ground water level, as presented in the geotechnical investigation report, prepared by Orbit.

Typical excavation activities using small scale equipment forced by the constrained site conditions is not likely to result in a high vibration level, other than during unusual activities such as dropping heavy loads. Care is required when operating in close proximity to buried services and adjacent existing building structures. Any required jack hammering (if applicable) must be carried out with small handheld machines near the existing underground structures. The use of vehicle-mounted percussive demolition equipment is not anticipated, but if such equipment becomes necessary special considerations will be necessary.

Compaction of materials (if applicable) can result in higher vibration levels than those described above. The use of large scale vibratory rollers is not anticipated but if such equipment becomes necessary special considerations will be necessary and vibration zone of influence can be wider than the estimated zone reported in the assessment.

In addition, the use of any kind of vibratory equipment should be subjected to vibration monitoring as well as acceptance by the Consultant and the City. In some cases, although the ground vibration levels are within acceptable limits, it may cause annoyance to the neighbours who may complain to the City, and in turn, the City may not allow the Contractor to use such vibratory equipment. In such a case, the Contractor should be prepared to provide alternatives in lieu of vibratory equipment.

6.1 Zone of Influence

The "Zone of influence "as defined by City of Toronto By-Law **514-2008** is:

The area of land within or adjacent to a construction site, including any buildings or structures, that potentially may be impacted by vibrations emanating from a construction activity where the peak particle velocity measured at the point of reception is equal to or greater that 5 mm/s at any frequency or such greater area where specific site conditions are identified by the professional engineer in a study contemplated in subsection C3 (a).

Based on the above definition, and the guidelines found in the By-law under Subsection C4 (a to h), the estimated Zone of influence for this project is anticipated to be less than 5 meters from the boundaries of the major work areas. An occasional vibration impact as high as 5 mm/s at a distance of 5 m or more is possible, although the typical impact will be much less.

A plan showing the estimated zone of influence (ZOI) of the proposed construction works has been provided as **Drawing 2**.

6.2 Structures within the Zone of Influence

Based on the anticipated zone of influence as defined in Section 2.1 above, the west portion of following structure lies within the vibration zone of influence:

- Existing two storey residential building (39 Norton Avenue) located east of the subject property.

Other adjacent structures at the site are located outside the estimated zone of influence.

7 MEASUREMENT OF BACKGROUND VIBRATION

The site was visited on August 04, 2023, to carry out pre-construction measurements of background vibration. A Blastmate MiniMate Plus seismograph with tri-axial geophones was used to assess ambient ground vibration levels. A total of four temporary vibration monitoring stations (TVMS) were established as presented on **Drawing 2.**

The maximum PPV component and the maximum peak vector sum of PPV was found to be 0.311 mm/s at the TVMS.

8 PRE & POST CONSTRUCTION CONDITION SURVEY

It is required in the By-Law to carry out a public pre-construction consultation with the adjacent property owner and occupants within the estimated Zone of Influence. For this project, the structure within the estimated vibration zone of influence have been mentioned in Section 6.2 (see **Drawing 2** for details).

For this project, a pre- and post-construction survey of structures within the estimated zone of influence will need to be carried out. The pre-construction survey will have to identify, at a minimum the existing cracks in the walls, floors and exterior cladding.

9 VIBRATION MONITORING PROGRAMME

The vibration monitoring programme will comprise onsite assessment during major construction activities to verify that the vibration levels are below 5 mm/s outside the estimated vibration zone of influence. The major construction activities include removal of existing asphaltic concrete, excavation, compaction and demolition of two storey structures and removal of buried foundations. For confirmatory purpose, extensive measurements are not required, provided that the measurements are sufficient and vibration levels are acceptable.

If the contractor's selection of equipment and methods prove to generate a greater zone of influence than estimated, then this plan will need to be reassessed and revised as necessary to ensure compliance with the City By-Law requirements or alternatively the contractor will be forced to modify his equipment and procedures until the work is compliant with the plan stipulations. Noted that, if vibration levels measured at any neighboring structure during any construction activities are not compliance with the City By-Law requirements listed in Table 1, the particular construction operation will be stopped immediately until further review/ assessment is carried out by the consultants and authorities having jurisdiction over the site.

To protect the existing adjacent structure(i.e. 39 Norton Avenue) from possible adverse impacts of proposed construction and demolition activities, we recommend that vibration monitoring must be carried out at the site during major construction activities

The monitor should be deployed as noted above at least one week before construction begins on the site to provide baseline weekday and weekend vibration data and extend until the identified activities are complete. Monitors should be configured to produce a continuous record of peak particle velocities and corresponding dominant frequencies of vibration. Furthermore, the continuous record of vibration levels should be checked against attended measurements at least weekly during major construction activities.

Additional readings will be taken as promptly as possible if any vibration related complaints by adjacent property owner or tenants are raised.

Once removal of existing asphaltic concrete, excavation, compaction and demolition activities along the existing structures are substantially complete, a final report should be prepared summarizing vibration measurements during construction and demolition (If applicable) as a record to defend any future claims, should they arise. For confirmatory purpose, extensive measurements are not required, provided that the measurements are sufficient and vibration levels are acceptable.

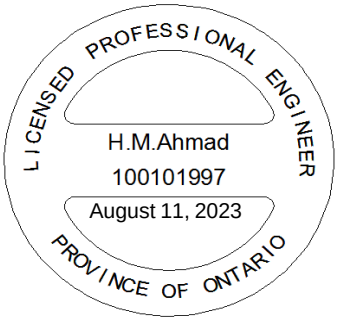
10 CLOSURE

We trust that this information is satisfactory for your present requirements. Should you have any questions or require additional information, please do not hesitate to contact this office.

For and Behalf of Orbit Engineering Limited

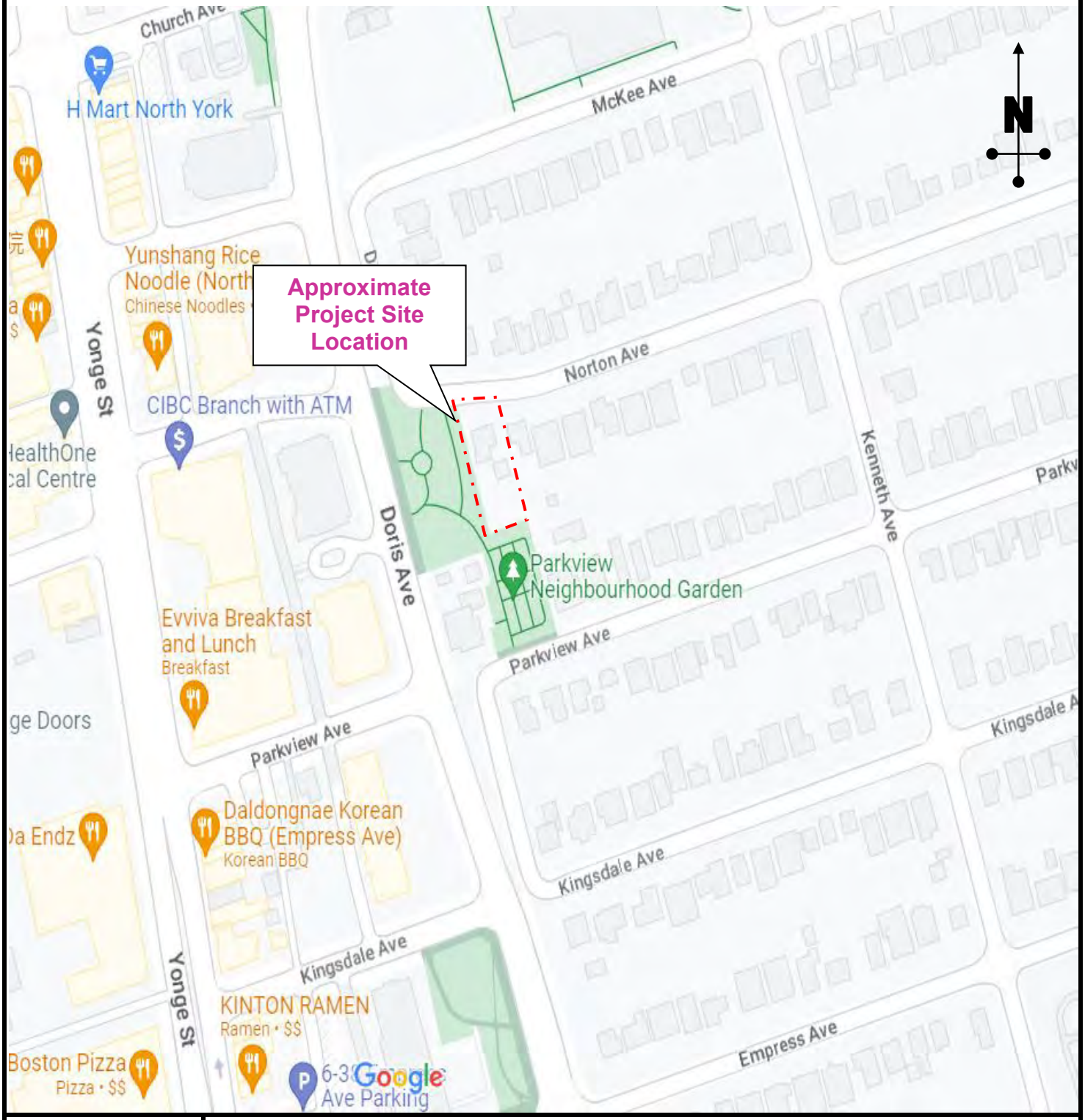
Dr. Aly Ahmed, Ph.D., P.Eng., QP$_{ESA}$
Principal Geotechnical Engineer

Reviewed By:

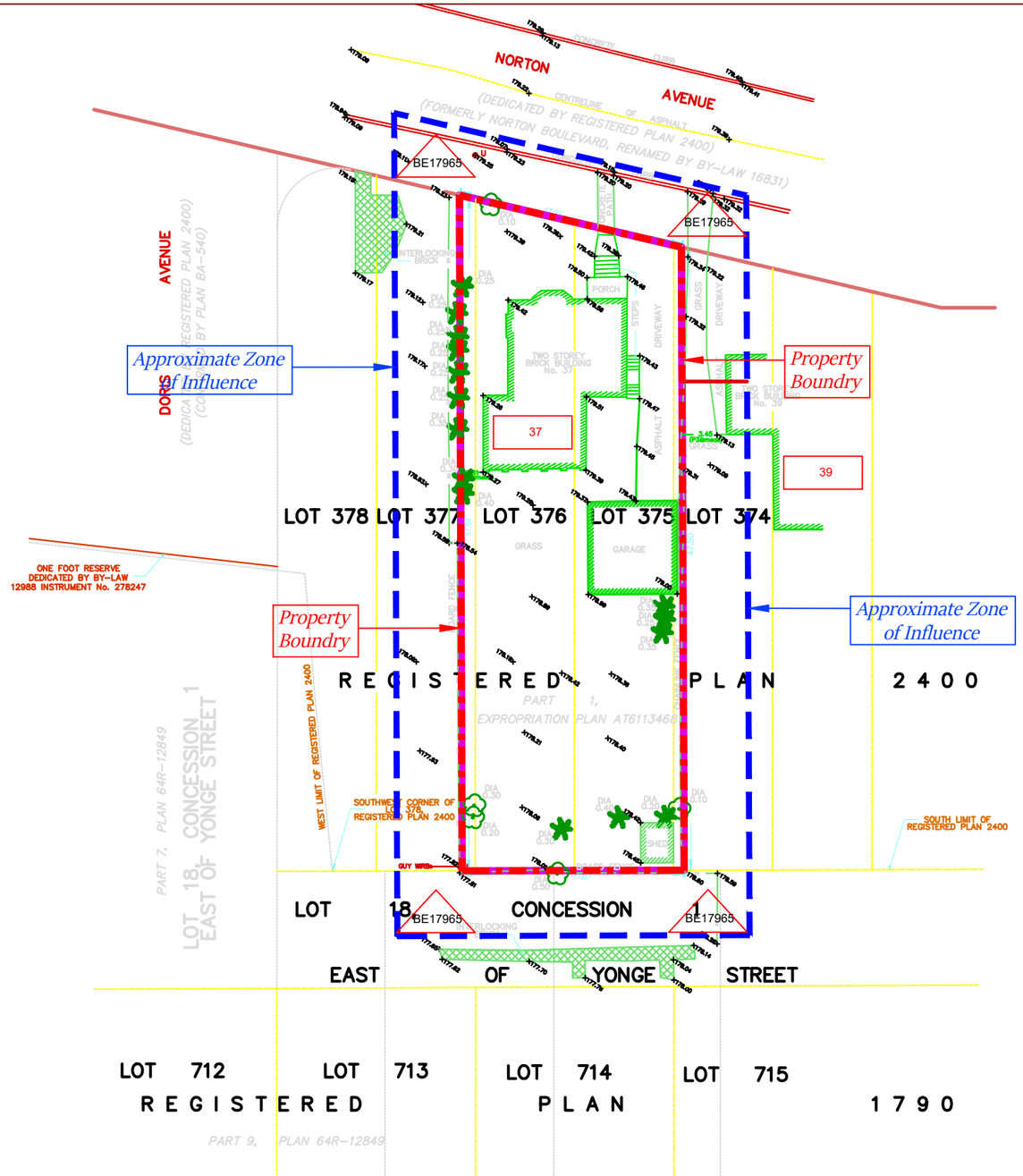


Hafiz Muneeb Ahmad, M.Eng. M.Sc., M. Eng., P.Eng., QP$_{ESA}$.
Senior Principal Engineer

Drawings



ORBITENGINEERING	**APPROXIMATE SITE LOCATION PLAN**		
	Date: **August 2023**	**Vibration Control Assessment** **Proposed Development** **37 Norton Ave, North York, ON**	Prepared By: **FM**
	Project: **OE231465EG**		Reviewed By: **HA**
		Prepared for: **City of Toronto**	Drawing No. **1**



SKETCH SHOWING TOPOGRAPHIC INFORMATION OF
37 NORTON AVENUE
CITY OF TORONTO
FORMERLY CITY OF NORTH YORK

0 4 8 12 16m
SCALE: 1:200

METRIC DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

CAUTION **THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE IN THE TITLE BLOCK**

DISTANCES **ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR : 0.999887.**

ELEVATIONS **SHOWN HEREON ARE REFERRED TO GEODETIC DATUM AND ARE DERIVED FROM CITY OF TORONTO BENCHMARK No. 12319653429 HAVING AN ELEVATION OF 176.586m.**

NOTE **BOUNDARY INFORMATION HAS BEEN COMPILED FROM OFFICE RECORDS.**

UNDERGROUND SERVICE INFORMATION IS NOT PROVIDED ON THIS PLAN

LEGEND

U DENOTES UTILITY POLE
DIA DENOTES DIAMETER
DENOTES DECIDUOUS TREE
DENOTES CONIFEROUS TREE

FIELD WORK WAS COMPLETED ON AUGUST 05, 2022.

LEGEND

BE17965 — Number at the end notifying the model number of vibration instrument used for reading at location

37 — House Number

Approximate Zone of Influence 5m offset from the Property Boundry

Property Boundry

Drawn	Z.A.
Approved	H.A
Date	AUG, 2023
Scale	AS SHOWN
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ORBITENGINEERING
Consulting Engineers

Client:	CITY OF TORONTO
Project:	VIBRATION ASSESMENT PROPOSED RESIDENTIAL DEVELOPMENT 37 NORTON AVE NORTH YORK, ONTARIO
Title:	ESTIMATED ZONE OF INFLUENCE BOUNDRY
Project No:	OE231465EG
Drawing No:	2

Appendix A

Limitations of Report

LIMITATIONS OF REPORT

This report is intended solely for the Client named. The material in it reflects our best judgment in light of the information available to Orbit Engineering Limited at the time of preparation. Unless otherwise agreed in writing by Orbit Engineering Limited, it shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. No portion of this report may be used as a separate entity, it is written to be read in its entirety.

The conclusions and recommendations given in this report are based on information determined at the testhole locations. The information contained herein in no way reflects on the environment aspects of the project, unless otherwise stated. Subsurface and groundwater conditions between and beyond the testholes may differ from those encountered at the testhole locations, and conditions may become apparent during construction, which could not be detected or anticipated at the time of the site investigation. The benchmark and elevations used in this report are primarily to establish relative elevation differences between the testhole locations and should not be used for other purposes, such as grading, excavating, planning, development, etc.

The design recommendations given in this report are applicable only to the project described in the text and then only if constructed substantially in accordance with the details stated in this report.

The comments made in this report on potential construction problems and possible methods are intended only for the guidance of the designer. The number of testholes may not be sufficient to determine all the factors that may affect construction methods and costs. For example, the thickness of surficial topsoil or fill layers may vary markedly and unpredictably. The contractors bidding on this project or undertaking the construction should, therefore, make their own interpretation of the factual information presented and draw their own conclusions as to how the subsurface conditions may affect their work. This work has been undertaken in accordance with normally accepted geotechnical engineering practices.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Orbit Engineering Limited accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

We accept no responsibility for any decisions made or actions taken as a result of this report unless we are specifically advised of and participate in such action, in which case our responsibility will be as agreed to at that time. Any user of this report specifically denies any right to claims against the Consultant, Sub-Consultants, their officers, agents and employees in excess of the fee paid for professional services.

APPENDIX G

Arborist's Agreement and Insurance

AGREEMENT FOR ARBORISTS RETAINED BY PRIVATE PROPERTY OWNERS TO UNDERTAKE WORK ON CITY TREES

THIS AGREEMENT made this _____ (day) of _____ (month, year)

BETWEEN

CITY OF TORONTO
(the "City")
and

the **"Owner"**
and

the **"Arborist"**

WHEREAS The *City of Toronto Municipal Code, Chapter 813, Trees, Article II*, regulates the planting, care, maintenance and protection of trees on City highways/roads and street allowances, and *Chapter 608, Parks, Article VII*, (the "**Municipal Code**") regulates the protection of trees in City parks, and through its associated policies, ensures sustainability of the urban forest; and

WHEREAS the General Manager of Parks, Forestry and Recreation ("the **General Manager**") is authorized to care for and maintain, or cause to be cared for and maintained, trees located on City streets and in City parks and may authorise work to be performed on City trees by an arborist that has been retained by an **immediately adjacent** private property owner in accordance with the Municipal Code and this agreement;

IN CONSIDERATION of the **Permission** granted herein by the City of Toronto (the "**City**") and the mutual covenants and agreements set out below, the Arborist and the Property Owner agree as follows:

1. The Property Owner(s) signing below (the "Owner") is/are the registered owner(s) of the property municipally known as:

Street Number		Street Name		Suite #	
Toronto		Ontario		Postal Code	

and have/has requested permission to retain an arborist to undertake certain work (the "Work") on certain City trees immediately adjacent to their property, as requested in the application form attached as Schedule "A" (the "Application") and approved as set out in Schedule "B" ("the Permission").

2. Arborists performing Work on City trees must meet one or more of the following requirements:

- Be qualified by the Ontario College of Trades
- Be a certified arborist qualified by the International Society of Arboriculture
- Be a consulting arborist registered with the American Society of Consulting Arborists
- Be a Registered Professional Forester (R.P.F.) or
- Have equivalent qualifications as approved by the General Manager

3. The Arborist signing below ("the **Arborist**") represents and warrants that he/she meets one or more of the arborist requirements as set out above and is qualified to undertake the Work.

4. The Owner and the Arborist acknowledge and agree that the Work is to be undertaken and completed at the sole risk and expense of the Owner. All agreements for payment shall be between the Arborist and the Owner. The Arborist shall receive no compensation, remuneration or reimbursement by the City whatsoever. For greater certainty, the City shall not be responsible for any non-payment on the part of the Owner.

5. The Arborist is responsible for arranging for all necessary utility clearances including, but not limited to: hydro, gas, water and sewage, telephone and cable and for providing all necessary clearance receipts to Urban Forestry prior to execution of this agreement by the City. More specifically, and without limiting the generality of the foregoing, the Arborist acknowledges that no Work shall take place within 3 meters of primary conductors (the "**Limit of Approach)**. The Arborist is responsible for any damage to Toronto Hydro property and other utilities.

6. The Arborist shall obtain all necessary permits, licenses and approvals, required in connection with the undertaking of the Work including without limitation, any permits required in accordance with *Municipal Code Chapter 743, Streets and Sidewalks* and shall pay all fees as required by law or policy prior to commencement of the Work.

7. The Arborist shall be qualified to perform and shall carry out the Work to the satisfaction of the General Manager, in a good and professional manner in accordance with the terms and conditions of this Agreement, the City's current policies, standards and requirements, the terms and conditions of the Permit, or any other permit or written approval issued by the City and all other legislative requirements including, without limitation the *Infrastructure, Health and Safety Association Rules*, the *Occupational Health and Safety Act*, the *Highway Traffic Act*, the *Workplace Safety and Insurance Act*, the *Pesticides Act* and the *Pest Control Products Act*, and the American National Standards, *ANSI 300* and best management practices identified by the International Society of Arboriculture.

8. Without limiting the generality of the foregoing, the Arborist shall comply with the *Occupational Health and Safety Act* ("**the OHSA**") and acknowledges that the Arborist is competent, as defined in the OHSA. The Arborist acknowledges that all personnel engaged by the Arborist are qualified to undertake the Work, are trained in the health and safety hazards expected to be encountered in carrying out the Work, and possess the knowledge and skills to allow them to work safely. The Arborist will provide all necessary personal protective equipment for their protection and the protection of all workers engaged in the undertaking of

the Work. The Arborist acknowledges and agrees that employees of the City, including senior officers, have no authority to direct, and will not direct, how employees, workers or other persons employed or engaged by the Arborist undertake the Work. The Arborist will immediately notify the City in the event of any accident or critical injury that arises out of the performance of this Agreement.

9. The Arborist represents and warrants that it is in good standing with the Workplace Safety and Insurance Board ("**the WSIB**") and shall provide the City with a Clearance Certificate issued by the WSIB, confirming that the Arborist has paid its assessment based on a true statement of the amount of its current payroll prior to the City signing this agreement. The Arborist shall also ensure that any subcontractors retained by the Arborist shall have secured WSIB coverage.

10. Upon approval of the Application, the City will issue a Permission in the form attached to this agreement, which the Arborist shall post in a conspicuous location, visible from the street, for a minimum period of one day prior to the commencement of the Work and until such time as the Work has been completed to the satisfaction of Urban Forestry.

11. a) Where the Work to be performed includes tree planting, trees shall be planted in the locations set out in Schedule A, as approved by the General Manager. The selected tree species must be acceptable to Urban Forestry. They must be a minimum of 50 mm (2 inch) caliper and conform to Canadian Nursery Standards.

11. b) Where proposed tree planting includes planting in a tree pit, raised bed, raised planter or sidewalk opening, the planting must be completed in accordance with the latest City of Toronto tree planting details and drawings and in consultation with Urban Forestry Commercial Trees unit.

11. c) The Owner agrees to maintain the newly planted trees in good and healthy condition, as determined by the General Manager, for 2 years after the date of planting.

12. Tree pruning shall be carried out in accordance with the following general standards, to the satisfaction of the General Manager:

- To encourage the health of a tree
- According to good arboricultural practice to prune to provide for moderate clearance of tree limbs and branches interfering with structures, street lighting, pedestrian and vehicular traffic, utility conductors and traffic signals or signs
- To encourage the natural form of the tree species
- To remove dead limbs
- To maintain structural stability and balance of a tree
- In accordance with line clearing standards

Tree pruning will only be approved and shall only be undertaken if deemed to be necessary under the above noted criteria. Pruning is not to be used to improve scenic views, to obtain uninterrupted paths for signals or satellite dishes, to increase light to swimming pools, solar panels, patios, lawns or gardens.

13. a) Any approved tree removal, must be followed by stump removal to a minimum depth of 30 cm. Stump grindings must be removed, and the hole must be filled with topsoil and dressed with grass seed.

13. b) Where the trees to be removed are planted in hard surface infrastructures such as planter, tree pits, raised beds, raised planter boxes or sidewalk openings, the Arborist shall ensure the following:

- root masses must be exposed using hydro-vac, or similar non-invasive excavation and extracted from the tree pit, raised bed, raised planter or sidewalk opening without compromising or damaging utilities, sidewalks, tree planting infrastructure, street furniture, or any other City or private property
- if guards, rails, panels, grates etc. are present, the Arborist must inform the local BIA (business improvement area office) of the Work to be performed and arrange for removal and reinstallation of guards, rails, panels, grates or other infrastructure
- the site may not be left unoccupied until it is made safe for pedestrian and vehicular traffic in accordance with Transportation Services standards

14. Prior to commencing the Work, the Arborist shall provide the City with a certificate of insurance in the form attached and with an insurer acceptable to the City, evidencing the following policies of insurance:

1. Commercial General Liability, provided that the policy:

    i. is in the amount of not less than two million dollars ($2,000,000.00) per occurrence;
    ii. adds the City of Toronto as an additional insured;
    iii. includes Non-Owned Automobile Liability, Employer's Liability and / or Contingent Employer's Liability, and any other provisions relevant to the Work;

2. Automobile Liability insurance with a minimum limit of one million dollars ($1,000,000.00) for all owned or leased licensed motorized vehicles used in the performance of the Work.

15. It is understood and agreed that the coverage and limits of liability noted above are not to be construed as the limit of liability of the Arborist in the performance of the Work. It is also agreed that the above insurance policies may be subject to reasonable deductible amounts, which deductible amounts shall be borne by the Arborist. At the expiry of the policies of insurance, original signed certificates evidencing renewal will be provided to the City without notice or demand.

16. The Arborist is responsible for any loss or damage whatsoever to any of its material, goods equipment or supplies and will maintain appropriate all-risk coverage as any prudent owner of such materials, goods, supplies and equipment. The Arborist shall have no claim against the

City or the City's insurer for any damage or loss to its property and shall require its property insurers to waive any right of subrogation against the City.

17. The Arborist hereby waives any claim whatsoever that the Arborist may have against the City that may arise as a result of, or in connection with this agreement and the permission being granted for the Work herein described to be undertaken by the Arborist.

18. The City assumes no liability for any damages or injury that may occur to City or private property during, as a result of, or in connection with this agreement and any Work undertaken, or omitted to be undertaken by the Arborist. In the event that the Arborist causes unauthorized damage or injury to City trees, in the course of carrying out the Work, and such injury or damage is not rectified to the satisfaction of the City, the City may issue an order to comply and penalties or set fines may apply in accordance with the *Municipal Code Chapters 813 and 608*.

19.The Owner hereby waives any claim whatsoever that the Owner may have against the City in connection with this Agreement or that may arise as a result of the permission being granted for the Work herein described and to be undertaken by the Arborist.

20. The Arborist and the Owner shall indemnify and save harmless the City, its employees, officers, directors, agents, representatives and elected officials (collectively, the "**City**") from all actions, suits, claims and demands whatsoever, which may be brought against or made upon the City in connection with this agreement and from and against all losses, costs, damages, charges and expenses whatsoever for injuries and/or damages, including but not limited to, damage to trees, property, equipment and utilities, that may be incurred, sustained or paid by the City for, or by reason of, or on account of the permission hereby granted.

21. The Work shall commence by:

yyyy-mm-dd		the "**Commencement Date**"

and shall be completed by:

yyyy-mm-dd		the "**Completion Date**"

unless the City agrees in writing to an extension of these dates. In the event that the Work is not commenced within 15 days of the Commencement Date, or such extended date as the City may have agreed to in accordance with this section, this agreement and the permission granted herein shall expire on the 15th day following the Completion Date.

22. The Arborist shall advise Urban Forestry upon completion of the Work and shall submit photos of the completed Work to the assigned Urban Forestry staff. Following review of the photographs, Urban Forestry may perform an inspection of the Work. In the

event that the City is not satisfied with the Work, the Arborist shall, at the expense of the Owner, undertake such further work as may be required by Urban Forestry in order to ensure that the Work is completed to the satisfaction of the City. The Arborist and the Owner agree that no payment shall be made until such time as the City has advised the owner and the Arborist in writing that the Work has been completed to the satisfaction of the City.

23. Any notice required or permitted to be given under this Agreement shall be mailed or delivered personally or sent by facsimile transmission as set out below or to such person or such address as the parties may advise in writing:

The City at:

City of Toronto
Urban Forestry Data Management Centre
18 Dyas Road, 1st Floor
Toronto, ON, M3B 1V5
Fax: 416 392 1915

The Owner at:

Name	
Attention	
Address	
Postal code	
City	
Email:	
Fax:	
Phone:	

Any notice given in accordance with this section is deemed to have been given and received on the day of personal delivery, mail or facsimile transmission if such day is a business day and delivery is made prior to 3:30 p.m. and otherwise on the next business day.

The parties shall give notice under this section of any change of address and the changed address shall then be substituted for the address set out above.

In Witness whereof, the parties have executed this agreement on _____ (d/m/y)

OWNER(S) (where owner(s) are individuals)

Please print clearly

Name(s) of Owner(s)			
Signature		Witness	
Signature		Witness	

Where Owner is a corporate entity

Name of Corporation			
Signature		Signature	

I/We have the authority to bind the corporation

ARBORIST

Name of Arborist			
Signature		Witness	

Where Arborist is a corporate entity

Name of Corporation			
Signature		Witness	

We have the authority to bind the corporation.

CITY OF TORONTO

Signature		Print name	

For General Manager, Parks, Forestry and Recreation

Certificate of Insurance

Parks, Forestry & Recreation – Urban Forestry

Information about the Insured

To be completed only by the insurer or by its representative

Name of Insured	City of Toronto contact name, Address and Telephone Number
Address and Telephone Number of Insured	City of Toronto Urban Forestry Services, Data Management Centre 18 Dyas Road, Toronto, ON M3B 1V5 Fax: 416-392-7815

Address of the property adjacent to the proposed work / tree location

1. Commercial General Liability

minimum limit to be evidenced - $2,000,000.00 per occurrence

Insuring Company	Policy Number	Policy Limit(s) ($ per occurrence)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)
Primary Insurer:				
Umbrella/Excess Insurer Applicable to Auto Coverage				

Call 311

Commercial General Liability policy provisions:

a) The CITY OF TORONTO, ITS BOARDS, AGENCIES, COMMISSIONS OR SUBSIDIARY OPERATIONS, AS APPLICABLE, are included as Additional Insureds but only with respect to liability arising out of the operations of the Insured for which a contract or proposal is issued by the City of Toronto.

b) The policy includes a Cross-Liability and Severability of Interest, Blanket Form Contractual Liability, Owner's and Contractor's Protective Liability, Broad Form Property Damage, Contingent and/or Employer's Liability, Non-Owned Automobile Liability, Products/Completed Operations and any other provision relevant to the contract work.

c) The Commercial General Liability Policy(ies) identified above shall apply as primary insurance and not excess to any other insurance available to the City.

d) If cancelled during the period of coverage as stated herein, thirty (30) days, (fifteen (15) days if cancellation is due to non-payment of premium), prior written notice by registered mail will be given by the Insurer(s) to the CITY OF TORONTO at the address provided on this Certificate.

2. Automobile Liability
minimum limit to be evidenced - $2,000,000.00 per occurrence

Insuring Company	Policy Number	Policy Limit(s) ($)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)

Certification

I certify that the insurance is in effect as stated in this Certificate and that I have authorization to issue this Certificate for and on behalf of the insurer(s). This Certificate is valid until the expiration date(s) stated in the "Expiry Date" provision, unless notice is given in writing in accordance with the provision of this Certificate.

Date:	Broker's or Insurer's Name and Address	Signature and Stamp or Certifying Official