

Executive Summary

GHD Limited (GHD) was retained by Crown Communities Developments Inc. and Crown (Bradford) Developments Inc. (Crown) to complete a Phase Two Environmental Site Assessment (ESA) of the property located at 126, 136 and 140 Bradford Street in Barrie, Ontario (hereinafter referred to as the Site or Property). The Site is currently used for the following commercial purposes:

- NAPA Autocare Centre (126 Bradford Street)
- Get Moving Physio (136 Bradford Street).
- Barrie Foot Clinic (140 Bradford Street)

The Phase Two ESA was undertaken in accordance with the requirements of Ontario Regulation 153/04, as amended (O. Reg. 153/04 or the Regulation). It is GHD's understanding that the Phase Two ESA was completed in support of a potential property transaction, and that a Record of Site Condition (RSC) is planned to be filed in the future to support the change in land use from commercial property use to residential property use.

The Site is located in Barrie, Ontario in an area that has been developed for mixed industrial, commercial, residential and/or agricultural purposes since at least 1917. The Site is approximately 0.5 hectares, with frontage along Bradford Street to the east. The Site currently in use for commercial purposes with associated asphalt surface. One contiguous building is currently present in the central portion of the Site. The Site surfaces are largely covered by an asphalt surface.

GHD completed a Phase One ESA of the Site in January 2023. The purpose of the Phase One ESA was to identify, through a non-intrusive investigation, the existence of any Potentially Contaminating Activities (PCAs) and Areas of Potential Environmental Concern (APECs) associated with the Site. The Phase One ESA was completed in accordance with O. Reg. 153/04, which defines PCAs and APECs. Based on the findings of the Phase One ESA and Phase Two ESA (presented herein), the following APECs were identified to be associated with the Site:

APEC	Location of the APEC on Phase One Property	PCA(s)	Location of PCA (on-site or off-site)
APEC #1 – Automotive Repair Facility at 120 Bradford Street (adjacent to the north of Site)	Northern Portion of the Site	27. Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-Site
APEC #2 – Automotive Repair Facility (On-Site at 126 Bradford Street)	Northern Portion of the Site	27. Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On-Site
APEC #3 – Former Used Oil AST	Northwestern Portion of Site	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site
APEC #4 – Importation of Fill Material of Unknown Quality	Entire Site	30. Fill Material of Unknown Quality	On-Site
APEC #5 – Overhead Transformer	Southwestern Portion of Site	55. Transformer Manufacturing, Processing and Use	On-Site
APEC #6 – Current Bulk and Used Oil ASTs	Northern Portion of Site	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site
APEC #7 – De-icing Activities	Entire Site	-	

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1. Introduction

GHD Limited (GHD) was retained by Crown Communities Developments Inc. and Crown (Bradford) Developments Inc. (Crown). A Site Location Map and a Site Plan are provided on **Figure 1** and **Figure 2**, respectively.

GHD previously completed a Phase One ESA¹ of the Site in January 2023. The Phase Two ESA was undertaken in accordance with the requirements of Ontario Regulation 153/04, as amended (O. Reg. 153/04 or the Regulation). The Phase Two ESA was completed in support of a potential property transaction, and that a Record of Site Condition (RSC) is planned to be filed in the future to support the change in land use from commercial property use to residential property use.

The objective of this Phase Two ESA was to investigate soil and groundwater quality, as applicable, in the areas of potential environmental concern (APECs) identified during the Phase One ESA. This report summarizes the investigative activities completed and presents the data generated therefrom.

1.1 Site Description

The Site is currently used for the following commercial purposes: NAPA Autocare Centre (126 Bradford Street); Get Moving Physio (136 Bradford Street); and Barrie Foot Clinic (140 Bradford Street).

The NAPA Autocare Centre is an automotive repair facility while the operations conducted by Barrie Foot Clinic and Get Moving Physio are limited to professional health related services. The Site is located in Barrie, Ontario in an area that has been developed for mixed commercial and residential purposes since at least 1917. The Site is approximately 0.5 hectares, with frontage along Bradford Street to the east. The Site currently in use for commercial purposes with associated asphalt surface. One contiguous building is currently present in the central portion of the Site. The Site surfaces are largely covered by an asphalt surface.

1.2 Property Ownership

The Property is owned by owned by Mr. Raymond Lalande. Contact information for the property owner is listed below:

Mr. Raymond Lalande
2463744 Ontario Inc.
1025 Lakeshore Road East
Oro-Mendonte, Ontario, L0L 1T0
1-705-791-7754

1.3 Current and Proposed Future Uses

Based on the Phase One ESA, the Site is currently owned by Mr. Raymond Lalande and is currently in use for commercial purposes. It is GHD's understanding that the Site is proposed to be redeveloped for residential use.

¹ Phase One Environmental Site Assessment, 126, 136 and 140 Bradford Street, Barrie, Ontario, prepared for Crown and dated January 20, 2023.

- Field measurements of groundwater quality parameters.
- Hydraulic monitoring [groundwater level measurements and measurements for non-aqueous phase liquid (NAPL), if present].
- Quality assurance and quality control (QA/QC) measures.
- Elevation Surveying.
- Analytical testing.
- Residue management.

The QP_{ESA} determined that the sampling program (including the QA/QC program) undertaken during the Phase Two ESA met the requirements of O. Reg. 153/04 and was sufficient to ensure the quality and reliability of the analytical results. A summary of the APECs identified at the Site and the associated PCAs is provided in the section below.

The purpose of the Phase Two ESA was to investigate the APECs identified in the Phase One ESA. The objective of the Phase Two ESA was to investigate soil and groundwater quality, as applicable, in the APECs identified at the Site.

The Phase One ESA Study Area and the Phase One ESA Conceptual Site Model for the Site and the are shown on **Figure 2** and **Figure 3**, respectively. The locations of the boreholes and monitoring wells at the Site are shown on **Figure 4**. A summary of the APECs identified at the Site and associated PCA(s) is provided below:

Area of Potential Environmental Concern ¹	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity ²	Location of PCA (on-site or off-site)	Contaminants of Potential Concern ³	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
3 When completing this column, identify all contaminants of potential concern using the Method Groups as identified in the "Protocol for Analytical Methods in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:					
Acid base neutral extractable (ABNs)	Petroleum hydrocarbons (PHCs)	Benzene, toluene, ethylbenzene and xylenes (BTEX)	Boron, hot water soluble (B-HWS)	Mercury (Hg)	
Chlorophenols (CPs)	Polychlorinated biphenyls (PCBs)	Calcium (Ca), magnesium (Mg)	Chloride (Cl ⁻)	Methyl Mercury	
1,4-Dioxane	Polycyclic aromatic hydrocarbons (PAHs)	Metals	Cyanide (CN ⁻)	high pH	
Dioxins/Furans, PCDDs/PCDFs	Trihalomethanes (THMs)	Arsenic (As), antimony (Sb), selenium (Se)	Electrical conductivity (EC)	low pH	
Organochlorine pesticides (OCs)	Volatile organic compounds (VOCs)	Sodium (Na)	Chromium (hexavalent) [Cr (VI)]	Sodium adsorption ratio (SAR)	

6. Conclusions

The following conclusions are provided based on the results of the Phase Two ESA:

- All soil samples submitted for analysis met the applicable Table 2 Generic Standards, with the application of Section 49.1 of O. Reg. 153/04.
- All groundwater samples submitted for analysis met the applicable Table 2 Generic Standards, with the application of Section 49.1 of O. Reg. 153/04.
- Groundwater VOC parameters had concentrations below the Table 8 Generic Standard at the Site.

All of Which is Respectfully Submitted,



David J. Hutchinson, P. Eng., QP_{ESA}



Tom Guoth, P. Eng., QP_{ESA}

Figures

Tables

Appendices

Appendix A

Sampling and Analysis Plan

Appendix B

Stratigraphic and Instrumentation Logs

