



Kollaard Associates
Engineers

210 Prescott Street
P.O. Box 189
Kemptville, Ontario K0G 1J0

Civil • Geotechnical •
Structural • Environmental •
Hydrogeology •

(613) 860-0923

FAX: (613) 258-0475

REPORT ON

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT
1234 PRESTONE DRIVE
ORLEANS WARD
OTTAWA, ONTARIO**

Submitted to:

St. Helen's Anglican Church
1234 Prestone Drive
Orleans, Ontario
K2S 1A3

DATE September 3, 2013

DISTRIBUTION

6 copies St. Helen's Anglican Church
1 copy Kollaard Associates Inc.

130476



September 2013

- i -

130476

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment was carried out by Kollaard Associates Inc. for Helen's Anglican Church of Orleans, Ontario. The subject site for this assessment consists of a parcel of land some 0.91 hectares (2.25 acres) in area located at civic address 1234 Prestone Drive, Orleans, in the City of Ottawa, Ontario.

The purpose of the Phase I Environmental Site Assessment was to identify, if possible, through non-intrusive investigation the existence of any significant, actual or potential environmental liabilities associated with the property. The Phase I Environmental Site Assessment (ESA) has been prepared in general conformity with our interpretation of the requirements of CSAZ768-01 as well as Ontario Regulation 153/04 (as amended in December 2009 through Ontario Regulation 511/09) for conducting environmental site assessments.

The Phase I Environmental Site Assessment was based on a site reconnaissance visit, a review of available geological, topographical and historical information for the site including a review of the surficial and bedrock geology maps, a review of air photographs, title search documentation, information provided by Environmental Risk Information Services Ltd. (Ecolog ERIS) and zoning information obtained from the City of Ottawa.

The results of this Phase I ESA indicate that the most significant environmentally related issues identified at the site are the potential for possible pesticide and herbicide residue from past agricultural use of the site.

Based on the results of this study no major issues of environmental concern were identified with respect to soil and/or groundwater quality and no further investigation is considered warranted at this time.



TABLE OF CONTENTS

| | |
|--|-----------|
| EXECUTIVE SUMMARY | i |
| TABLE OF CONTENTS..... | ii |
| 1.0 INTRODUCTION | 1 |
| 2.0 SITE DESCRIPTION | 2 |
| 2.1 Location and Legal Description | 2 |
| 2.2 Site and Area Characteristics..... | 2 |
| 2.3 Sewage Disposal..... | 2 |
| 2.4 Water Supply..... | 2 |
| 2.5 Past and Present Property Uses and Activities..... | 3 |
| 3.0 HISTORICAL INFORMATION REVIEW | 3 |
| 3.1 Geological, Topographical and Hydrogeological Setting..... | 3 |
| 3.2 Air Photograph Review..... | 4 |
| 3.3 Ministry of the Environment (MOE) Records..... | 4 |
| 3.4 City of Ottawa..... | 4 |
| 3.5 Geotechnical Investigation | 5 |
| 3.6 Ecolog ERIS – Environmental Risk Information Services Standard Report..... | 5 |
| 4.0 SITE RECONNAISSANCE..... | 6 |
| 4.1 Storage..... | 6 |
| 4.2 Storage Tanks..... | 6 |
| 4.3 Polychlorinated Biphenyls (PCBs)..... | 7 |
| 4.4 Suspect Asbestos Containing Materials (ACMs)..... | 7 |
| 4.5 Solid Waste Disposal Practices..... | 7 |
| 4.6 Adjacent Properties | 7 |
| 4.7 Noise, Dust and Vibration..... | 7 |
| 4.8 General Storage and Debris (Housekeeping) | 7 |
| 5.0 ISSUES OF POTENTIAL ENVIRONMENTAL CONCERN | 8 |
| 6.0 CONCLUSIONS | 8 |
| 7.0 LIMITATIONS AND USE OF REPORT..... | 8 |
| QUALIFICATIONS OF THE ASSESSORS | 10 |



TABLE OF CONTENTS (continued)

LIST OF FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

LIST OF ATTACHMENTS

ATTACHMENT A – TITLE SEARCH DOCUMENTATION

ATTACHMENT B – AIR PHOTOGRAPH REVIEW

ATTACHMENT C – ONTARIO MINISTRY OF THE ENVIRONMENT CORRESPONDENCE

ATTACHMENT D – CITY OF OTTAWA CORRESPONDENCE

ATTACHMENT E – ECOLOG ERIS - ENVIRONMENTAL RISK INFORMATION SERVICES

ATTACHMENT F – SITE PHOTOGRAPHS



1.0 INTRODUCTION

The subject site for this assessment consists of about a 0.91 hectare (2.25 acres), irregular shaped property located at civic address 1234 Prestone Drive, Orleans, in the City of Ottawa, Ontario (see Key Plan, Figure 1).

For the purposes of this assessment, project north lies in a direction perpendicular to Prestone Drive immediately north of the subject site.

The site is located within an area of residential and institutional development. The site is bordered by Prestone Drive followed by residential development on the north, residential development on the east and institutional development on the south (retirement home and church), and Kennedy Lane E followed by residential development on the west. Currently, the subject site is occupied by a church building and an asphaltic concrete surfaced driveway and parking area on the east and north sides of the church building, respectively.

The primary objective of this Phase I ESA is to document the site conditions on the day of a walk-through site reconnaissance and, if possible, to identify former operations or practices that may present potential environmental risks. The study is based on current and historical information and observations of site conditions during a site reconnaissance visit conducted on August 14, 2013.

The scope of the Phase I ESA is sufficient to identify existing and/or potential environmental liabilities that are obvious from visual examination of surface features and from available sources of information. This level of work is a method of risk reduction, not risk elimination. No building materials, soil, water, liquid, gas, or chemical product sampling and/or testing on or in the vicinity of the subject site were carried out as part of this assessment. This assessment included only a cursory overview of the present neighbouring land uses and does not constitute a complete assessment of the adjacent facilities.

Sections 2.0 and 3.0 of this report provide details of the site and information review. Section 4.0 outlines the site reconnaissance findings. Section 5.0 outlines issues of potential environmental concerns that were identified. Sections 6.0 and 7.0 present a summary of the assessment and limitations of the report, respectively.



2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The site consists of about a 0.91 hectare (1.38 acre) parcel of land located on Prestone Drive, Orleans, in the City of Ottawa, Ontario.

The legal description for the site is Parcel 8-1, Section 50M-77; Part of Block 8, Plan 50M-77, being Part 1 on Plan 50R-5659, formerly City of Cumberland, City of Ottawa, Ontario. PIN 14509-0147.

2.2 Site and Area Characteristics

The attached Key Plan, Figure 1, and air photographs (Attachment B) show the relative location of the subject site with respect to the surrounding land and the existing roadway network. The site is located within an area of residential and institutional development, including a retirement home and churches south of the subject site. Currently, the site is occupied by St. Helen's Anglican Church.

The ground surface across the site is relatively flat lying with slight slope towards the south. Catch basins exist within the asphaltic concrete surfaced parking area to drain surface water from the site to existing storm sewers on Prestone Drive.

The topographical map for the site area is provided (Figure 2).

2.3 Sewage Disposal

The site is serviced by municipal sanitary sewers which exist along Prestone Drive north of the site.

2.4 Water Supply

The site is serviced by municipal water supply, which exists along Prestone Drive north of the site.



2.5 Past and Present Property Uses and Activities

A chain of title for this site (see Attachment A) was provided by Wentzell Titles Ltd. Based on a review of information obtained from a title search, the property is indicated to have been owned by individuals and companies/organizations. The companies/organizations consist of Canada Company, les Freres des Ecoles Chretiennes d' Ottawa, Campeau Corporation, The Corporation of the Township of Cumberland, Parish of St. Hilda's and St. David's of the Diocese of Ottawa and Parish of St. Helen's of the Incorporated Synod of the Diocese of Ottawa, Anglican Church of Canada (current owner).

3.0 HISTORICAL INFORMATION REVIEW

In order to assess some of the historical conditions at the property, a preliminary review of information from the following sources was conducted:

- Topographic and geological maps
- National Air Photo Library - Energy Mines and Resources, Ottawa, Ontario
- Ministry of Environment (MOE), Ottawa, Ontario
- City of Ottawa Website for Zoning
- Old Landfill Management Strategy Phase 1 – Identification of Sites, City of Ottawa, Ontario, December 2003, Reference Number 021-2785 by Golder Associates Ltd.
- Geotechnical Investigation, 1234 Prestone Drive, August 2013, by Kollaard Associates Inc.
- Ecolog ERIS – Environmental Risk Information Services Standard Report

3.1 Geological, Topographical and Hydrogeological Setting

Based on a review of the surficial geology map for the site area, it is expected that the site is underlain by deposits of clay. A review of the bedrock geology map indicates that the bedrock underlying the site consists of dolomite or limestone of the Oxford Formation or limestone with some shaly partings of the Ottawa Formation. A review of the topographical map for the site area indicates no major surface water bodies within at least 500 metres of the subject site.



3.2 Air Photograph Review

A review of air photographs for the site for the years 1946, 1968, 1976, 1991, 1999 and 2011 was carried out as part of this Phase I ESA (see Attachment B). The 1946, 1968 and 1976 air photographs indicate the site and surrounding area in use for agriculture with gradual residential development north of the site (St. Joseph Blvd). Significant residential development is observed west and south of the site between the 1968 and 1976 air photographs. Commercial development north of the site along St. Joseph and residential development is visible in the 1991 air photograph, however the site is undeveloped. The 1999 air photograph indicates a building at the site and a building south of the site. There are no significant changes visible in the 2011 air photograph.

3.3 Ministry of the Environment (MOE) Records

The MOE office in Ottawa, Ontario, was contacted to determine if the Ministry has maintained a file with respect to the subject property. Specifically, the MOE was asked to respond (in writing) with information concerning any historical or existing incidents at or in the vicinity of the subject site. At the time of the preparation of this report, a response from the MOE had been received, which indicates that there are no active orders or approvals issued for the subject site (see Attachment C).

3.4 City of Ottawa

A review of a report entitled Old Landfill Management Strategy Phase 1 – Identification of Sites, City of Ottawa, Ontario, December 2003, Reference Number 021-2785 by Golder Associates Ltd. indicates no old landfill sites exist within at least five hundred metres of the subject site. The closest former landfill site is approximately 720 metres northeast of the site, east of the Highway 174 on ramp and northeast of the intersection of St. Joseph Boulevard and Old Tenth Line Road. There are no current landfill sites identified in the topographical map and City of Ottawa website within at least 500 metres of the site.

The City of Ottawa Website was reviewed for the zoning designation of the subject site. The website indicates that the site is currently zoned I1B – Minor Institutional Zone, according to the City of Ottawa Zoning By-law 2008-250. This type of zoning permits a range of community and institutional uses, including places of worship and retirement facilities.



The City of Ottawa was also contacted to conduct a search of all environmental databases, including Historical Land Use Inventory (HLUI) and any information pertaining to the environmental condition of the property and adjoining areas including, but not limited to past environmental reports, orders, violations of environmental statutes, regulations or by-laws, certificates, approvals, permits and any other environmental information. At the time of this report, a response from the City of Ottawa had not been received. However, if new environmentally relevant information is provided, an addendum report will be provided (Attachment D).

3.5 Geotechnical Investigation

In August 2013, Kollaard Associates Inc. put down two boreholes and one augerhole to depths of some 2.4 to 9.8 metres, below existing ground surface. The two boreholes were put down west and south of the building, respectively, and an augerhole was put down in the parking area east of the building. Fill materials were observed to depths of about 0.5 to 1.1 metres. No visible evidence of deleterious fill materials or signs of soil contamination were observed within the soils at the boreholes and augerhole.

3.6 Ecolog ERIS – Environmental Risk Information Services Standard Report

A review of information provided by Ecolog ERIS – Environmental Risk Information Services (see Attachment E) was carried out as part of this Phase I ESA. Based on that review, no records were found in the databases for the subject site.

Some information noted in the Ecolog ERIS report for properties within 250 metres of the subject site were identified.

In the TSSA Historic Incidents, a 2007 natural gas pipeline strike is listed at 1295 Turner Crescent, some 170 metres northeast of the site.

In the Ontario Spills section, one spill was reported to the MOE of about 200 litres of transformer oil due to a vehicle collision near 1402 Turner Crescent, some 246 metres east of the site.

No other significant environmental concerns were identified in the Environmental Risk Information Services Standard Report.



4.0 SITE RECONNAISSANCE

On August 14, 2013, a walk-through site reconnaissance was conducted at the subject property by a member of Kollaard Associates Inc. engineering staff. The site is located within an area of residential and institutional development.

The site is bordered on the south side by institutional development consisting of a retirement home (Queenswood Villa), followed by a church property (Queenswood United Church). The site is bordered by Prestone Drive on the north followed by residential development. Residential development exists east and west of the site.

At the time of the site visit, the site was observed to consist of a church building and asphaltic concrete surfaced parking area and access driveway. The remainder of the site not occupied by the building and parking area is vegetated mainly with mature trees and shrubs and manicured lawn at the north, west and south portions of the site. Two catch basins exist within the parking area for storm water drainage.

The building exterior is clad with brick and siding. The interior consists of office space, a larger area for the congregation and washrooms. The building was constructed in 1993. The building is heated by natural gas.

4.1 Storage

No storage of hazardous materials was observed. Based on the indicated past usage of the property, past storage of hazardous materials is considered unlikely.

4.2 Storage Tanks

No evidence of above ground or underground storage tanks were observed at the site or are expected based on the indicated past use of the site. The building is serviced with natural gas.



4.3 Polychlorinated Biphenyls (PCBs)

No evidence of any PCBs was observed. The building was constructed in 1993. Consequently, it is considered unlikely that any PCB containing equipment/material is present at the site.

4.4 Suspect Asbestos Containing Materials (ACMs)

No ACMs were observed. The building was constructed in 1993. Consequently, it is considered unlikely that any ACM containing materials are present at the site.

4.5 Solid Waste Disposal Practices

No disposal of solid waste was observed at the site.

4.6 Adjacent Properties

The site is bordered on the south side by institutional development consisting of a retirement home (Queenswood Villa), followed by a church property (Queenswood United Church), with a community park beyond. The site is bordered by Prestone Drive on the north followed by residential development. Residential development exists east and west of the site. There are no concerns with the current use of the adjacent properties.

4.7 Noise, Dust and Vibration

There is little potential for vehicular noise, dust and vibrations to exist at the site from the use of Prestone Drive, which is a collector road for nearby local roadways to access St. Joseph Boulevard to the north.

4.8 General Storage and Debris (Housekeeping)

At the time of the site reconnaissance, housekeeping at the site is considered to be good.



5.0 ISSUES OF POTENTIAL ENVIRONMENTAL CONCERN

In summary, based on the information gathered during this Phase I ESA, the following issues of potential environmental concern have been identified.

- Possible pesticide and herbicide residue from past agricultural use of the site.

6.0 CONCLUSIONS

The results of this Phase I ESA indicate that the potential risks associated with this site are limited to those outlined in Section 5 above. Based on the results of this study no major issues of environmental concern were identified with respect to soil and/or groundwater quality and no further investigation is considered warranted at this time.

7.0 LIMITATIONS AND USE OF REPORT

The results of this Phase I ESA should in no way be construed as a warranty that the subject property is free from any and all contaminants other than those noted in this report, nor that all compliance issues have been addressed.

This report was prepared for the exclusive use of St. Helen's Anglican Church and is based on data and information collected during the Phase I ESA of the property conducted by Kollaard Associates Inc. This report may not be relied upon by any other person or entity without the express written consent of St. Helen's Anglican Church and Kollaard Associates Inc. In evaluating this site, Kollaard Associates Inc. has relied in good faith on information provided by others. The assessment of environmental conditions and possible site hazards presented has been made using available technical data collected and provided by others. We accept no responsibility for any deficiencies, or inaccuracies in this report as a result of omissions, misinterpretations, or fraudulent acts of others.



QUALIFICATIONS OF THE ASSESSORS

Dean Tataryn, B.E.S., EP – Senior Environmental Professional/Project Manager

Mr. Dean Tataryn is a Senior Environmental Professional (EP) with Kollaard Associates Inc. in Kemptville, Ontario. Mr. Dean Tataryn has been conducting Phase I ESAs in accordance with the CSA Standard and Environmental Protection Act for more than 15 years. Mr. Tataryn has conducted more than 150 Phase I, II and III ESAs for commercial/residential clients over his career. Mr. Tataryn obtained a Bachelor of Environmental Studies (Honours Urban and Regional Planning) and a Certificate in Environmental Assessment from the University of Waterloo in 1995. Mr. Tataryn obtained his Environmental Professional (EP) designation in June of 2010.

EP certification is available exclusively to experienced professionals who have five or more years of relevant environmental work experience. Recipients of the EP designation have demonstrated that their skills and knowledge meet or exceed the National Occupational Standards (NOS) to ensure that they possess the specific environmental competencies required in their fields of practice. The NOS are a comprehensive list of skill statements that describe the competencies required for environmental work in Canada. The NOS provides a rigorous, nationally validated benchmark of the skills, knowledge and experience relevant for practice within the environment sector in the areas of environmental protection, resource management, environmental sustainability, environmental management, environmental auditing and/or greenhouse gas reporting.

Mr. Tataryn joined Kollaard Associates Inc. in 2005 and has worked on numerous environmental, geotechnical and hydrogeological assessment projects over his career. Mr. Tataryn is fully trained in coordinating and conducting environmental site assessments, environmental remediation, reclamation and restoration, contamination and spill inspections, and storage tank assessment and removal.

Colleen Vermeersch, B.Eng. – Engineer-in-training

Colleen Vermeersch is an engineer-in-training with Kollaard Associates Inc. in Kemptville, Ontario. Colleen has been conducting Phase I ESAs in accordance with the CSA Standard and Environmental Protection Act for more than four years. Colleen has conducted more than thirty Phase I ESAs for commercial/residential clients over her career and several Phase II ESAs, some of which have involved clean up supervision. Colleen Vermeersch obtained a Bachelor of Engineering (Environmental) from Carleton University in 2007. Colleen is expected to earn her professional engineering designation in 2012.

Colleen joined Kollaard Associates Inc. in 2007 and has worked on numerous environmental and hydrogeological projects since that time. Colleen is fully trained in carrying out and analyzing pumping tests, and field and lab based testing to determine soil and aquifer properties, such as hydraulic conductivity, transmissivity and groundwater flow directions/gradients, as these apply to contaminant transport and migration, coordinating and conducting environmental site assessments, environmental remediation, and storage tank assessment and removal.



William Kollaard, P.Eng. – Owner – Kollaard Associates Inc.

Mr. William Kollaard is the founding member of Kollaard Associates and is a professional engineer and principal consultant with more than 15 years of experience in the environmental consulting industry. Mr. Kollaard provides leadership, technical guidance to other project staff, senior review of deliverables and direct consulting to clients. His work experience has included: project management, conducting site and field work, business development, report and proposal writing and review. His duties also include providing technical and professional advice to various clients throughout the industry. Mr. Kollaard provides liaison between clients, other stakeholders, regulatory officials and legal counsel where required.

As principal, Mr. Kollaard actively participates in the direction and planning of the company, and has various active roles in mentorship, business development, protocols and procedures and quality control/quality assurance.

Kollaard Associates is an engineering consulting firm that provides a complete range of engineering services for developers, builders and homeowners in Eastern Ontario. Kollaard Associates specializes in providing civil, structural, geotechnical, hydrogeological and environmental services to our clients. Kollaard Associates Inc. has been established as a team of engineers and consultants since 2005. Mr. William Kollaard is responsible for the overall company development and management of the firm.

KEY PLAN

FIGURE 1



NOT TO SCALE



Kollaard Associates
Engineers

Project No. 130476
Date September 2013



NOT TO SCALE



Kollaard Associates
Engineers

Project No. 130476
Date September 2013



ATTACHMENT A

TITLE SEARCH DOCUMENTATION



ATTACHMENT B

AIR PHOTOGRAPHS



ATTACHMENT C

ONTARIO MINISTRY OF THE ENVIRONMENT CORRESPONDENCE



ATTACHMENT D

CITY OF OTTAWA CORRESPONDENCE



ATTACHMENT E

ECOLOG ERIS – ENVIRONMENTAL RISK INFORMATION SERVICES



ATTACHMENT F

SITE PHOTOGRAPHS



Church entrance (north side of building)



West side view of church



South side view of church



Parking lot area and entrance



South lawn and view to south (retirement home)



North lawn and view to northwest(residential)