Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Studies

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Phase I - Environmental Site Assessment

1987 Robertson Road Ottawa, Ontario

Prepared For

Hadwen Properties Limited

Paterson Group Inc.

Consulting Engineers 154 Colonnade Road South Ottawa (Nepean), Ontario Canada K2E 7J5

Tel: (613) 226-7381 Fax: (613) 226-6344 www.patersongroup.ca August 3, 2018

Report: PE4378-1

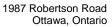




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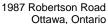
EXECUTIVE SUMMARY

Paterson Group conducted a Phase I-Environmental Site Assessment (ESA) 1987 Robertson Road, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and neighbouring properties and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research, the subject property was first developed before the 1950's. A farmstead on the subject site occupied the property in 1951, with the majority of the lands being used for agriculture. Sometime in the mid-1960's the subject property operated as a lumber distribution facility until mid-1990's. The surrounding properties were primarily residential since the early 1960's with some commercial. No environmental concerns were identified with the historical use of the surrounding area of the Phase I Property.

An inspection of the subject site and the surrounding area was conducted on July 26, 2018. The subject site is currently occupied by a large storage/warehouse style building, currently used for storage of automobiles. The surrounding land use currently consisted of trailer parks, commercial office spaces and retail store, which are not considered to pose a concern to the Phase I Property.

Based on the findings of the Phase I - ESA, it is our opinion that a Phase II - Environmental Site Assessment is not required for the subject property.





1.0 INTRODUCTION

At the request of Hadwen Properties Limited, Paterson conducted a Phase I - Environmental Site Assessment (ESA) at 1987 Robertson Road, in the City of Ottawa, Ontario. The purpose of this Phase I - ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all our findings and results of the environmental conditions at this site.

2.0 SITE INFORMATION

Address: 1987 Robertson Road, Ottawa, Ontario.

Legal Description: Part of Lot 11, Concession 2, Nepean (Ottawa Front),

in the City of Ottawa, Ontario.

Part of the Road Allowance between Lots 10 and 11, Concession 2 of Nepean (Ottawa Front), in the City of

Ottawa, Ontario.

Location: The subject property is located north east of the

Robertson Road and Moodie Drive intersection, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan

for the site location.

Latitude and Longitude: 45° 19' 30.31" N, 75° 47' 33.21" W

Site Description:

Configuration: Irregular

Site Area: 6.4 hectares (approximate)

Zoning Code: IP2 – Industrial zone, subzone 2

Current Use: The subject site is occupied by large

storage/warehouse style building. The remainder of the

site is vacant, and grass covered.

Services: The property is situated in a municipally serviced area.



3.0 SCOPE OF WORK

The states	scope of work for this Phase I - Environmental Site Assessment was as s:
	Investigate the existing conditions present at the subject site by carrying out a field study and historical review in general accordance with CSA Z768-01.
	Present the results of our findings in a comprehensive report.
	Provide a preliminary environmental site evaluation based on our findings.
	Provide preliminary remediation recommendations and further investigative work if contamination is encountered or suspected.



4.0 METHOD OF INVESTIGATION

4.1 Historical Research

Federal Records

The methodology for the Phase I - Environmental Site Assessment program was carried out in two segments. The first consisted of a historical review which included a brief research of the past use of the site. This portion of the program was carried out by Paterson personnel from the Environmental Division. The following is a list of the key information sources reviewed by our firm.

	Maps and photographs (Geological Survey of Canada surficial and subsurface mapping). Air photos at the Energy Mines and Resources Air Photo Library. National Archives. PCB Waste Storage Site Inventory.
Provi	ncial Records
_ _ _	MOECC document titled "Waste Disposal Site Inventory in Ontario". MOECC Brownfields Environmental Site Registry. MOECC Freedom of Information. Office of Technical Standards and Safety Authority, Fuels Safety Branch.
Muni	cipal Records
	The Corporation of the City of Ottawa. City of Ottawa document entitled "Old Landfill Management Strategy; Phase 1- Identification of Sites, City of Ottawa, Ontario"; finalized October 2004.
Local	Information Sources
	Personal Interviews. Previous Engineering Reports.



4.2 Field Assessment

The second segment of the Phase I-ESA consisted of a site visit which included a walk-through inspection and detailed visual assessment of the environmental conditions of the subject property. The site visit was carried out on June 18, 2018 by personnel from our Environmental Division.

As part of the field assessment, the site was inspected for signs of the following:

	Evidence of previous or existing fuel storage tanks.
	On-site use or storage of hazardous materials.
	On-site handling or disposal of liquid or solid waste materials.
	Aboveground piping systems, including pumps, valves, and joints.
	Truck or rail loading or unloading areas.
	Electrical conduits, abandoned pipelines or pumping stations.
	Remnants of old buildings.
	Signs of surficial contamination (i.e. staining, distressed vegetation).
	Unnaturally discoloured, ponded, or flowing waters.
	Surficial drainage, wetlands, natural waterways, or watercourses through
	the property (i.e. ditches, creeks, ponds, poor drainage).
	Any evidence of potable water supply wells or groundwater monitoring wells
	(such as leak detection monitoring wells for underground storage tank
	systems or abandoned systems).
	Any abnormal odours associated with the site, whether from on-site or off-
_	site sources.
	The presence of any recent soil disturbances such as soil removal, filling,
_	tilling, grading, etc.
	Asbestos containing materials (ACMs).
	Urea formaldehyde foam insulation (UFFI).
	Products containing Polychlorinated Biphenyls (PCBs).
	Ozone depleting substances (ODS).
	Lead-containing materials.
	Current use of neighbouring properties.

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5.0 FINDINGS OF THE ENVIRONMENTAL ASSESSMENT

5.1 Historical Review

Air Photo Research

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. Based on the review, the following observations have been made:

1951	The subject site is occupied by a farmstead and associated outbuildings at this time. Another farmstead can be seen to the east of the subject site while the remainder of the neighbouring properties are vacant and appear to be primarily used for agricultural purposes. A railway line can be seen to the north in this photo. Robertson Road is present to the south at this time.
1963	The subject and neighbouring properties to the north and west are unchanged from the previous photo. The neighbouring property to the south is now occupied by a trailer park, while increased commercial development can be seen further to the east at this time.
1968	The neighbouring properties are unchanged since the previous photo. The northern portion of the subject site appears to be used for lumber storage at this time.
1975	The subject site has been re-developed with the farmstead and associated outbuildings having been removed in this photo. The site is utilized as a lumber yard at this time with approximately six large shed type structures visible in this photo. The trailer park on the neighbouring property to the south has expanded at this time and now occupies the neighbouring property to the west. The remaining neighbouring properties are unchanged from the previous photo.
1984	The subject and neighbouring properties are relatively unchanged from the previous photo.
1993	The subject and neighbouring properties are unchanged from the previous photo.
4000	

The subject property appears to have gone through significant changes – three (3) warehouse structures no longer exit on the sit as

1999

Ottawa, Ontario



	they have been removed. The concrete pads where two (2) buildings existed are what is left of the buildings, an increase in residential density south and southwest of the subject property is noticeable.
2002	The subject and neighbouring properties are unchanged from the previous photo.
2011	The subject and neighbouring properties are unchanged from the previous photo.
2017	A property east of the subject property has been developed, but otherwise, no significant changes have been made to the surrounding area or subject property. The subject and neighbouring properties are depicted as they appear today.

Copies of selected aerial photographs reviewed are included in the Appendix.

National Archives

Fire insurance plans (FIPs) were not available for the subject property or surrounding area.

City directories from 1964 to 2000 were reviewed for the subject site and surrounding properties. City directories are not available for the area of the subject site prior to 1964. The subject property is listed in the city directories from the 1960's to 1980's as Steenbakkers Lumber Company Inc. Based on the available information, the adjacent properties that are occupied by buildings have been used for residential or commercial purposes (business offices). No concerns were noted in the city directories reviewed.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto, was contacted on July 11, 2018, to inquire about current and former underground/aboveground storage tanks, spills and incidents for the subject and neighbouring properties. According to the TSSA response, none of the listed properties have any records of fuel storage tanks.

PCB Inventory

A search of national PCB waste storage sites was conducted as part of our assessment. There were no PCB waste storage sites within the study area.



Natural Resources Canada (NRCAN)

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, the majority of the site is comprised of sandstone of the Nepean Formation while the northern part of the subject site is comprised of dolomite of the Oxford Formation. Based on the maps, the surficial geology consists of offshore marine sediments with an overburden thickness ranging from 2 to 10 m.

Ontario Ministry of Environment and Climate Change (MOECC)

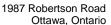
The Ontario Ministry of Environment and Climate Change document entitled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. Based on this document, there are no active or closed waste disposal sites or above mentioned industrial site within the vicinity of the subject property.

MOECC Brownfields Environmental Site Registry

A search of the MOECC Brownfields Environmental Site Registry was conducted for the subject and neighbouring properties, as well as the general area of the site. No Records of Site Condition (RSCs) were filed for the subject property or any properties within the vicinity of the subject property.

City of Ottawa Old Landfill Document

The document prepared by Golder Associates entitled "Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa", was reviewed. No landfill sites were identified within 250 meters of the subject property.





Previous Engineering Reports

The following report was reviewed prior to conducting this assessment:

□ "Phase I, II - Environmental Site Assessment, 3818 Richmond Road, Ottawa," prepared by Paterson Group, dated March 2012.

A change in address has since been made for this Phase I, II – ESA property to 1987 Robertson Road. The report indicated that the property has most recently been used as a lumber supply business. While no specific concerns were identified, the general use of the land was considered to warrant the completion of a limited Phase II – ESA, which Paterson subsequently completed. The results of the Phase II ESA did identify some limited impacted soil in the northwest corner of the site from the former railway spurline, but no grass contamination.

Personal Interviews

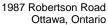
Mr. Patrick Kelahear with Ontario Rental and Supply, is the current tenant at the subject property, which they took possession of a few moths ago, but are now terminating the lease agreement. The building on the subject site has been used for automobile storage. Mr. Kelahear is unware of any potential environmental concerns associated with the subject site or neighbouring properties.

5.2 Exterior Assessment

The Phase I - ESA site visit was conducted on June 18, 2018 by Paterson personnel from the environmental division. The site visit included a review of the subject site and adjacent lands, including their current use.

Building

The subject property is currently occupied by a slab-on-grade warehouse style building. The structure, which is unheated, is currently used for vehicular storage. The building has a steel joist roof, concrete floor and is finished on the exterior with metal siding.





Site

The building occupies the southern portion of the property. Concrete pads from the former on-site buildings can be seen at several locations on the subject site. The majority of the site is grass or brush covered with the exception of the gravel laneway and parking area in the eastern portion of the property. The majority of the subject site is relatively flat, however, the western side of the property slopes downward to a creek which transects the western portion of the site. A former railway line is situated in the north eastern corner of the property. Surface infiltration is the primary method of directing surface water away from the site. No surficial staining or ponded water was observed at the time of the site visit.

Potential Environmental Concerns		
	Fuels and Chemical Storage	
	No signs of underground storage tanks (USTs) or above ground storage tanks (ASTs) were observed on the exterior of the site at the time of the assessment.	
	Waste Management	
	No waste or recycling materials are currently being produced on the subject site.	
Interior Assessment		
Tł	ne subject building is an open warehouse style storage building.	
Α	A general description of the interior of the building is as follows:	

☐ The floors consisted of concrete;

- lacktriangledown The walls consisted of metal siding;
- ☐ The ceilings consisted of steel deck; and,
- ☐ Lighting throughout the building is provided by fluorescent lighting.

Potentially Hazardous Building Products

□ Asbestos-Containing Materials (ACMs)

No potential ACMs were observed on the subject property at the time of the inspection.

5.3



	Lead-Based Paint
	No suspected lead-based paint was observed on the subject property at the time of our assessment.
	Polychlorinated Biphenyls (PCBs)
	Fluorescent light fixtures were observed throughout the building. Fluorescent light ballasts manufactured prior to 1981 may contain PCBs. It is expected that all light ballasts would have been replaced in the past thirty (30) years and do not contain PCBs.
	Urea Formaldehyde Foam Insulation (UFFI)
	No signs indicating the presence of UFFI were observed within the structure during our inspection.
Othe	r Potential Environmental Concerns
	Fuels and Chemical Storage
	One compressed gas cannister was observed within the building. No concerns were noted regarding the storage of this cannister. No signs of underground storage tanks (USTs) were observed at the time of the site inspection.
	Wastewater Discharges
	There currently is no liquid discharge from the subject property.
	Ozone Depleting Substances (ODSs)
	No potential sources of ODSs were observed on the subject site at the time of our site inspection.
	Waste Management
	No concerns with respect to waste management were noted in the interior of the subject building.



5.4 Adjacent Properties

_and	use adjacent to the subject site was as follows:
	North – Railway line followed by vacant land;
	South – Residential trailer park;
	East – Office complex;
	West – Residential trailer park, followed by commercial office spaces, No concerns were identified regarding the adjacent properties. Current land use adjacent to the subject site is illustrated on Drawing PE4378-1 – Site
	Plan in the Appendix.

6.0 CONCLUSION

6.1 Assessment

Paterson Group conducted a Phase I-Environmental Site Assessment (ESA) 1987 Robertson Road, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and neighbouring properties and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research, the subject property was first developed before the 1950's. A farmstead occupied the subject property in 1951, with the majority of the lands being used for agriculture. Sometime in the mid-1960's the subject property operated as a lumber distribution facility until mid-1990's. The surrounding properties were primarily residential since the early 1960's with some commercial. No environmental concerns were identified with the historical use of the surrounding area of the Phase I Property.

An inspection of the subject site and the surrounding area was conducted on July 26, 2018. The subject site is currently occupied by a large storage/warehouse style building, currently used for storing automobiles. The surrounding land use currently consists of trailer parks, commercial office spaces and retail stores, which are not considered to pose a concern to the Phase I Property.

Based on the findings of the Phase I - ESA, it is our opinion that a Phase II - Environmental Site Assessment is not required for the subject property.



7.0 STATEMENT OF LIMITATIONS

This Phase I-Environmental Site Assessment report has been prepared in general accordance with the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review along with a field inspection program and testing program. The findings of the Phase I are based on a review of readily available geological, historical, and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of Hadwen Properties Limited. Permission and notification from Hadwen Properties Ltd. and Paterson Group Inc. will be required to release this report to any other party.

Paterson Group Inc.

Mandy Witteman, M.A.Sc.

Mark D'Arcy, P.Eng.

Report Distribution:

Hadwen Properties Limited.

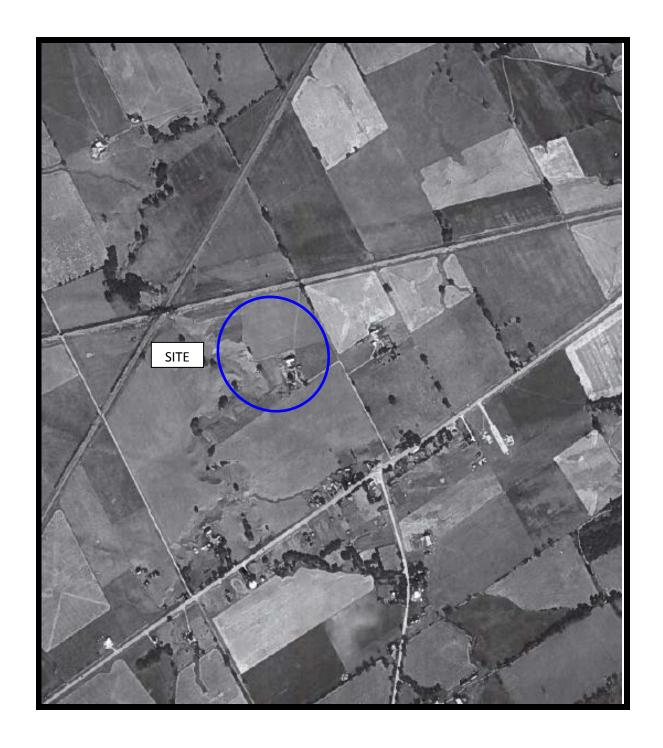
□ Paterson Group

APPENDIX

AERIAL PHOTOGRAPHS
TSSA CORRESPONDENCE

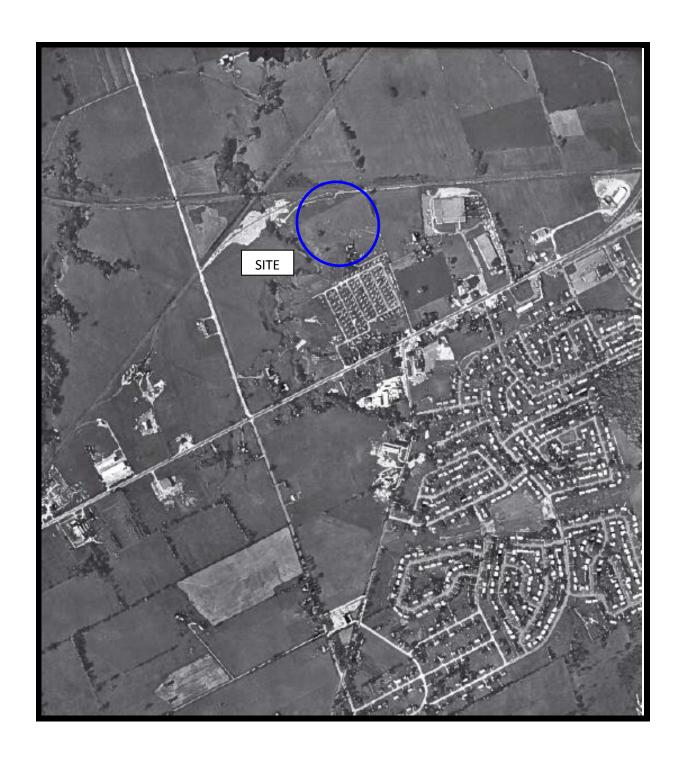
FIGURE 1 – KEY PLAN

DRAWING: PE4378-1 - SITE PLAN

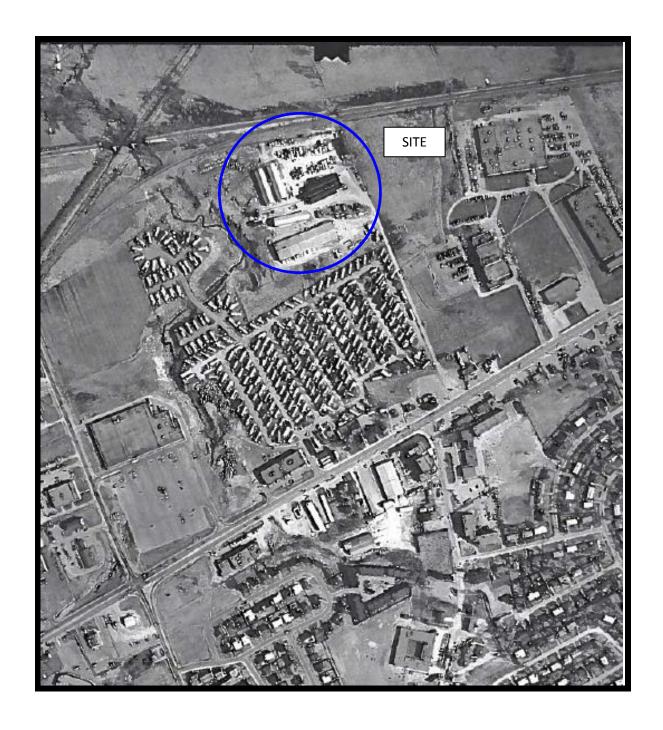


AERIAL PHOTOGRAPH 1951

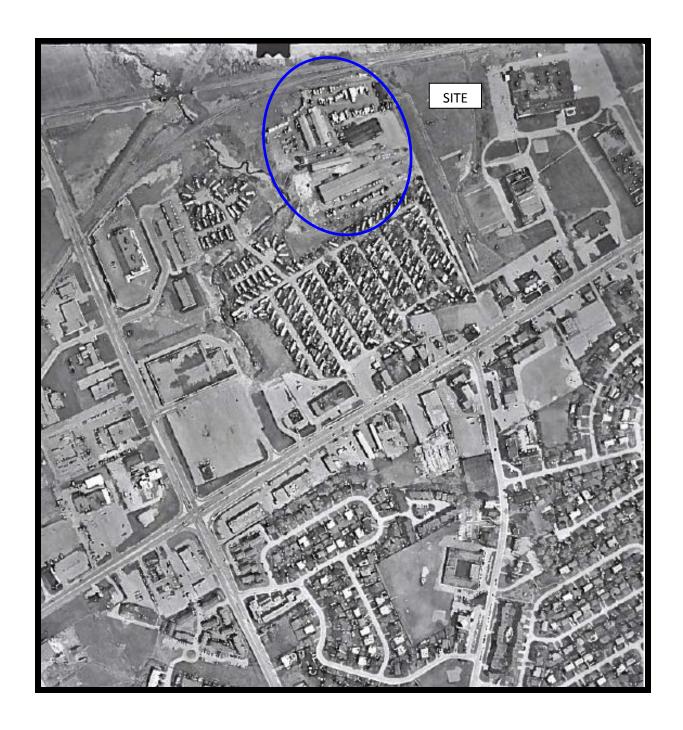
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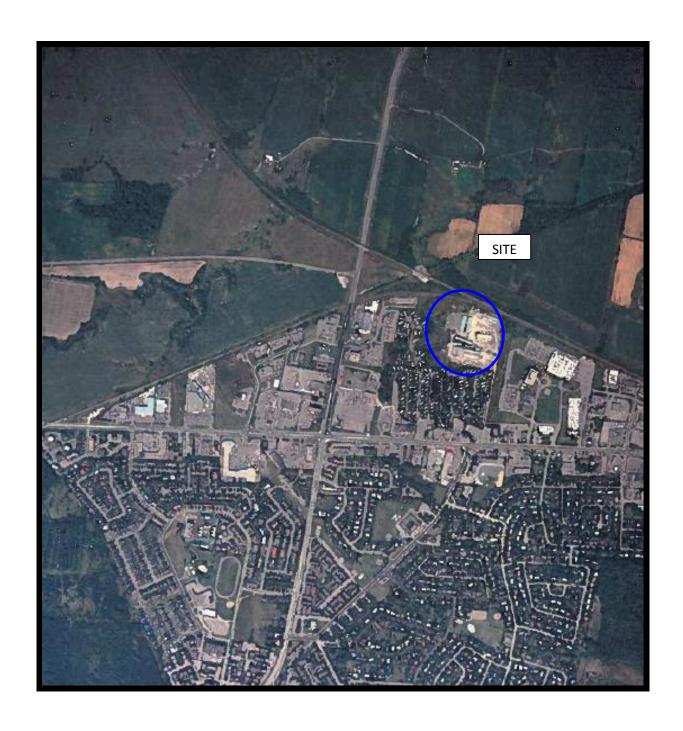
AERIAL PHOTOGRAPH 1963



AERIAL PHOTOGRAPH 1975



AERIAL PHOTOGRAPH 1984



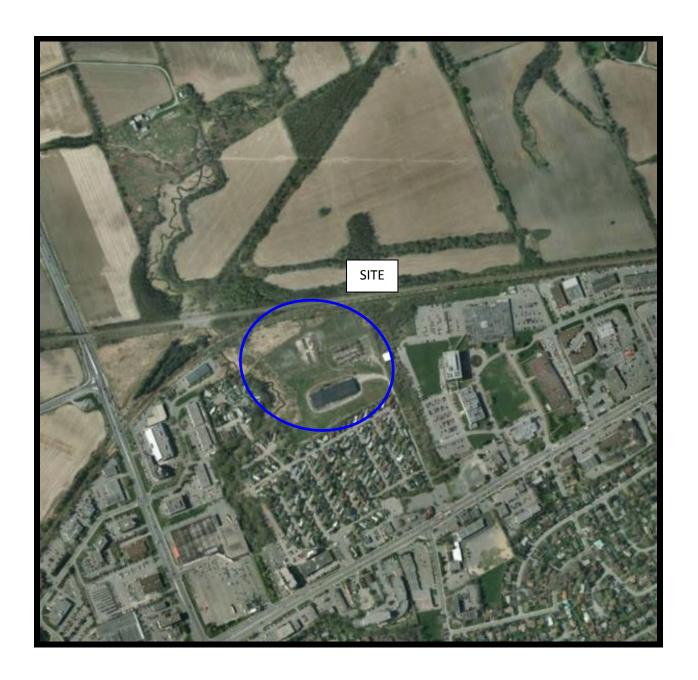
AERIAL PHOTOGRAPH 1993



AERIAL PHOTOGRAPH 1999



AERIAL PHOTOGRAPH 2002



AERIAL PHOTOGRAPH 2011



AERIAL PHOTOGRAPH 2017



FIGURE 1 KEY PLAN

Mandy Witteman

Public Information Services <publicinformationservices@tssa.org> From: Sent: July-12-18 11:58 AM To: Mandy Witteman Subject: RE: Records Search Request PE4378 No Records Found Hello. Thank you for your request for confirmation of public information. We confirm that there are **no fuel storage tanks records** in our database at the subject address(es). For copies of documents, please complete the Release of Public Information form, found at https://www.tssa.org/en/about-tssa/resources/Release-of-Records-form--Jan-2018Final.pdf and email the completed form to publicinformationservices@tssa.org or through mail along with the appropriate fee. TSSA's fee schedule can be found at: https://www.tssa.org/en/about-tssa/resources/Documents/Public-Information-Fee-Schedule Jan 2018.pdf. Fees are payable with a credit card (Visa or MasterCard) or by a cheque made payable to TSSA. 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, Connie From: Mandy Witteman < MWitteman@Patersongroup.ca> Sent: July 11, 2018 4:06 PM To: Public Information Services <publicinformationservices@tssa.org> Subject: Records Search Request PE4378 Good afternoon, Could you please complete a search of your records for underground/aboveground storage tanks, historical spills or other incidents/infractions for the following addresses in the City of Ottawa:

Robertson Rd: 1987, 1941, 1951, and 1931

25 Vanier Rd 1 Bonner St

Thank you very much.

Best Regards,

Mandy Witteman

patersongroup

solution oriented engineering

154 Colonnade Road South Ottawa, Ontario, K2E 7J5 Tel: (613) 226-7381 Ext. 339

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