Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

patersongroup

Phase I Environmental Site Assessment

443 and 447 Kent Street 423 and 425 McLeod Street Ottawa, Ontario

Prepared For

CHSS International Investments and Management Inc.

Paterson Group Inc.

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by CHSS International Investments and Management Inc. to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 443 and 447 Kent Street, and 423 and 425 McLeod Street, in the City of Ottawa, Ontario. The purpose of this Phase I-Environmental Site Assessment (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.

According to the historical research, the subject site was first developed with the existing detached residential dwellings at 443 and 447 Kent Street and residential duplex dwelling at 423 and 425 McLeod Street as early as 1888. One (1) potentially contaminating activity was identified on the subject property (Canadian Laundry). Several potentially contaminating activities were also identified on surrounding properties. The majority of these activities are not considered to have resulted in areas of potential environmental concern on the subject site. The PCAs that are considered to represent Areas of Potential Environmental Concern on the subject site include the former laundry on the subject site at 447 Kent Street, the former printers and automotive service garage at 430 Gladstone Avenue (adjacent to the north of the subject site), and a former automotive service garage and coal and oil storage site, located beside 430 Gladstone Avenue to the northeast, at 426 Gladstone Avenue.

Following the historical research, a site inspection was conducted of the subject site and Phase I ESA study area. The subject site is currently occupied by a two two-storey residential dwelling at 443 Kent Street, a two-storey residential building with two apartment units at 447 Kent Street, and a two-storey duplex building on McLeod Street (currently 4 apartment units). No ASTs or signs of USTs were observed at the subject site. No concerns were noted with respect to the current use of the subject site, or adjacent properties.



Recommendations

Based on the results of this Phase I-ESA a Phase II Environmental Site Assessment is required for the property.

Based on the original construction period of the building, it is considered possible that asbestos containing materials have been used. If one has not already been prepared, an asbestos survey should be conducted at the building. Lead-containing paints may be present within the subject building based on its date of construction. Lead testing should be conducted within the building prior to the disturbance of painted surfaces. Major works involving lead painted surfaces including the demolition of the on-site building must be done in accordance with Ontario Regulation 843, under the Occupational Health and Safety Act.



1.0 INTRODUCTION

At the request of CHSS International Investments and Management Inc., Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the properties located at 443 and 447 Kent Street and 423 and 425 McLeod Street, 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.

Paterson was engaged to conduct this Phase I ESA by Mr. Roberto Campagna of Roca Homes. Roca's offices are located at 24 George Street West, Ottawa Ontario, K1S 3J2. Mr. Campagna can be reached at 613-422-3737.

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

This Phase I-ESA report has been prepared in general accordance with Ontario Regulation 153/04 as amended by O.Reg. 269/11 (Environmental Protection Act), and also complies with the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA 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.



2.0 PHASE I PROPERTY INFORMATION

Address: 443 and 447 Kent Street, 423 and 425 McLeod

Street, Ottawa, Ontario.

Legal Description: North and South Parts of Lot 2, Plan 30; Lot 3, Plan

30; WPT Kent East, City of Ottawa.

Property Identification

Number: 04119-0261; 04119-0259; 04119-0258.

Location: The subject site is located at the northeast corner of

the intersection of Kent Street and McLeod Street. The subject site is shown on Figure 1 - Key Plan

following the body of this report.

Latitude and Longitude: 45°24'39" N, 75°41'43" W.

Site Description:

Configuration: Irregular.

Site Area: 885 square meters (approximate).

Zoning: R4S – Residential Fourth Density.

Current Use: The subject property consists of two (2) residential

dwellings (one of which has two apartment units) and one (1) residential duplex with four apartment units.

Services: The subject site is serviced with municipal sewer and

drinking water services.

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3.0 SCOPE OF INVESTIGATION

The scope of work for this Phase I – Environmental Site Assessment was as follows:

- Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases and regulatory agencies;
- Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
- Conduct interviews with persons knowledgeable of current and historic operations on the subject property, and if warranted, neighbouring properties;
- Present the results of our findings in a comprehensive report in general accordance with the requirements of Ontario Regulation 269/11 amending O.Reg. 153/04 made under the Environmental Protection Act and in compliance with the requirements of CSA Z768-01;
- Provide a preliminary environmental site evaluation based on our findings;
- Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.

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4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

A radius of approximately 250 m was determined to be appropriate as a Phase I ESA study area for this assignment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distance from the site.

First Developed Use Determination

The earliest documentation reviewed as part of this Phase I-ESA showing the subject site is the 1888 fire insurance plan, which indicates buildings on the subject property that match the site's current configuration. For the purposes of this report, the first developed use of the site is considered to be residential.

Fire Insurance Plans

Fire Insurance Plans (FIPs) from 1888, 1912, 1948, and 1956 were reviewed for the area of the subject property.

In 1888, the subject property was occupied by a two residential dwellings and a residential duplex. Neighbouring properties appeared to be primarily residential, with a vacant lot to the south, across McLeod Street. No Potential Contaminating Activities were noted in the 1888 FIPs.

In 1912, the subject site and adjacent properties appear to be unchanged, with the exception of the property to the south, which has been developed with a residential dwelling. Properties in the surrounding area were primarily of residential use, with some commercial uses. Two (2) printing shops were located in the Phase I study area, at 478 and 502 Bank Street, 146 m to the east and 182 m to the southeast, respectively.

Fire insurance plans from 1948 were not available for the entire Phase I study area. However, an automotive service garage was located at 464 Bank Street (108 m east), an automotive service garage was located at 400 McLeod Street (117 m east), a printing shop was located at 43 Flora Street (118 m to the east), an automotive service garage was located at 37 Flora Street (130 m east), a dry cleaners and underground fuel storage tank (UST) were present at 255 Argyle Avenue (211 m to the east), and Martin's Cleaners and Dyers was located at 249 Argyle Avenue (245 m to the east).

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In 1956, the subject property was occupied by the present day building, and listed as a residential duplex. Adjacent properties were used primarily for residential purposes, with some commercial and industrial uses. The PCA nearest the subject site was a printers at 430 Gladstone Avenue (22 m to the north). A retail fuel outlet was located 60 m to the north, at 429 Kent Street and had 2 USTs. Two (2) more retail fuel outlets were located at the intersection of Bank Street and McLeod Street (128 and 176 m to the east), with 4 and 3 USTs, respectively. Three (3) automotive service garages were located approximately 120 m to the east of the subject site, at 37 Flora Street and 400 McLeod Street. A printers was located between these service garages at 43 Flora Street. An automotive service garage was located at 480 Gladstone Avenue, 120 m to the west). A hydro substation with transformers (still existing) was located at 453 Lyon street, 175 m to the west.

Based on a review of the fire insurance plans, several potentially contaminating activities (PCAs) were identified in relatively close proximity to the subject site, although the large majority of the PCAs were considered to be too far away from the site to pose a concern.

City of Ottawa Street Directories

City directories at the National Archives were reviewed in approximate 10 year intervals from 1910 to 2011 as part of the Phase I ESA.

The subject properties have always been listed as occupied by residential tenants, with the exception of 447 Kent Street, which was listed as Canadian Laundry from 1959 to 1962. This business is not considered to have had the potential to have impacted the subject site.

Properties in the surrounding area consisted primarily of a combination of commercial and residential properties. Potentially contaminating activities were identified in the search of City of Ottawa street directories.

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Table 1: City Directories – Potentially Contaminating Activities in the Phase I Study Area					
Address	Listed Activity	Years Listed	Approximate Distance / Orientation from Site		
McLeod Stree	t				
377	Jos. R. McKenny Garage	1920	145 m NE		
Kent Street	Kent Street				
400	Custom Muffler Service Ltd.	1970, 1980	45 m NW		
428	McDonald Brothers Garage	1921	45 111 1999		
490	General Bearing Service	1990, 2001, 2010	62 m S		
Gladstone Av	enue				
406	Capital Gas Tank Service	1990, 2000, 2011	- 45 m NE		
400	Spic and Span cleaners	1979	45 III INC		
410	Capital and Dominion Radiator Co. Ltd.	1970, 1980, 1990, 2000, 2011	- 50 m NE		
410	Axle Automotive Inc.	2011			
417	Savasta Automotive Repair	1990, 2000, 2011	50 m N		
	Mike's Gladstone Auto Repair	2000, 2011			
426	Art's Auto Repair	2000			
420	Detroit Motors auto repairs	1930	10 m NE		
	Edward Watt Coal Oil	1910			
	Love Printing Srvice Ltd.	1965			
400	Progressive Printers	1930, 1939, 1949	Adiacont to north		
430	Yellow Arrow Taxi Co.	1921	- Adjacent to north		
	John Fern's Garage	1920			
431-437	Charles Regan Service Station	1960	40 m N		
	Main Garage	1990, 2000	- 40 m N		
435	Main Garage Gas Bar	2000			
400	Sunys Petroleum	1990			
	Centretown Service Centre	1980			
449	Century Motors used cars	1955, 1960	50 m NW		

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Table 1: City Directories – Potentially Contaminating Activities in the Phase I Study Area				
Address	Listed Activity	Years Listed	Approximate Distance / Orientation from Site	
	Long Island Motors car repairs	1970		
457	Canadian Skycap Service Ltd. transportation	1970	- 77 m W	
437	Unico Auto Service / Repair	1990, 2000	77 III W	
459	Wally Biggs Garage	1955	77 m W	
461	Unico Auto Body	1990	92 m W	
474	Appointment Auto Body	1980	115 m W	
474	Jazer Collision Centre	1990	- 115 m W	
475	Alek's Auto Body Works	1990	120 m W	
477	Hurd's Garage	1955, 1960	120 m W	
478	Lewis Motors Ltd garage and body shop	1970	120 m W	
	Alek's Auto Body Works	1990, 2000	- 120 m W	
480	Lewis Motors Ottawa body shop	1960, 1965		
400	U-Fix-It garage	1965		
	Wally Biggs auto garage	1950		
486	Print Action Limited	2000	145 m W	
Flora Street				
37	Uptown Automotive	2000	130 m E	
17-51	Welch and Johnsen auto garage	1930, 1939, 1949, 1959, 1969	115 m E	
45	Flora Printers	1939	115 m E	
Florence Stre	eet	1		
24	Skuce Maynard Garage	1941, 1950	110 m N	
Bank Street				
396	Sunlight Oil Co. Service Station	1940, 1950	180 m N	

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Table 1: City Directories – Potentially Contaminating Activities in the Phase I Study Area				
Address	Listed Activity	Years Listed	Approximate Distance / Orientation from Site	
407	Waverly Motors Ltd.	1931	225 m NE	
429	Weiner's Cleaners	1939	183 m NE	
	Weiner's Cleaners	1949, 1959		
443	Horner Motor Sales / Imperial Oil Service Station	1930	170 m NE	
448	McColl-Frontenac Service Station	1930	120 m NE	
	McDonald Garage	1910		
450	Retail Fuel Outlet (various names / owners)	1949, 1969, 1979, 1990, 2000, 2010	110 m NE	
451	Mike O'Connor Service Station	1939, 1959	170 m NE	
464	BF Goodrich service garage	1959, 1969	125 m E	
475	Lett Hydo Automobiles	1959	175 m E	
482, 484	Clean-O-Mat	1959	155 m SE	
479-493	Ottawa Motor Sales / Capital Motor Sales	1930, 1939	200 m SE	

Given their proximity to the subject site, the former printers and automotive service garages at 426 and 430 Gladstone Avenue are considered to have had the potential to impact the subject property, and have resulted in the creation of an area of potential environmental concern on the subject property.

Previous Reports

Paterson has conducted several environmental investigations in the study area. Based on information in these reports, the former retail fuel outlet to the north of the subject site at 429 Kent Street is not considered to have impacted the subject property.

Paterson completed a geotechnical investigation at the subject site in 2010. Environmental conditions of the subsurface profile were not noted in the geotechnical report.

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Current Plan of Survey

A current plan of survey was not available at the time of preparing this Phase I-ESA.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on December 12, 2017. The subject site and adjacent properties were not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites are located within the Phase I study area.

Ontario Ministry of Environment and Climate Change (MOECC) Instruments

A request was submitted to the MOECC Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MOECC issued instruments for the site. At the time of issuing this report, a response had not been received from the MOECC. Should the response contain pertinent information, the response will be forwarded to the client.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment and Climate Change document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No former coal gasification plants are located in the Phase I study area.

MOECC Incident Reports

A request was submitted to the MOECC Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MOECC for the site or adjacent properties. At the time of issuing this report, a response had not been received from the MOECC. Should the response contain pertinent information, the response will be forwarded to the client.

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MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. At the time of issuing this report, a response had not been received from the MOECC. Should the response contain pertinent information, the response will be forwarded to the client.

MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions have been submitted to the MOECC. At the time of issuing this report, a response had not been received from the MOECC. Should the response contain pertinent information, the response will be forwarded to the client.

MOECC Brownfields Environmental Site Registry

A search of the MOECC Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No Records of Site Condition (RSCs) were filed for the subject property. RSCs were filed for the property at 486 Gladstone Avenue, approximately 145 m west of the subject site; for 453 Bank Street, approximately 175 m to the east; and for 390 Bank Street, 220 m to the north. Paterson also completed a remediation of the former retail fuel outlet at 429 Kent Street.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment and Climate Change document titled "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. There are no active sites listed within the Phase I study area in the waste disposal site inventory. No closed waste disposal sites were identified in the study area.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. Based on this report, no former landfills are located in the Phase I study area.

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Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the web site of the Ontario Ministry of Natural Resources and Forestry (MNRF) on December 12, 2017. The search did not reveal any natural features or areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on December 12, 2017 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. At the time of issuing this report, a response had not been received from the TSSA. Should the response contain pertinent information, it will be forwarded to the client.

City of Ottawa Historical Land Use Inventory

A requisition form was sent to the City of Ottawa to request information from the City's Historical Land Use Inventory (HLUI 2005) database for the subject property. At the time of issuing this report, a response had not been received from the City. Should the response contain pertinent information, the response will be forwarded to the client.

Former Industrial Sites

The report entitled "Mapping and Assessment of Former Industrial Sites, City of Ottawa" was also reviewed. The subject site was not listed in the report, however three properties in the study area were listed:

- Site 37: Beach Motors at 474 Bank Street (125 m to the east), which operated as a battery manufacturer in the 1930s.
- Site 38: Flora Printers and Bookshop at 45 Flora Street (115 m to the southeast), which operated as a printing and publishing industry from the 1930s to 1950s.
- Site 39: Progressive Printers at 430 Gladstone Avenue (adjacent to the north), which operated as a printing and publishing house from 1927 to the 1950s.

Based on their distances, anticipated downgradient location with respect to anticipated groundwater flow, and a review of available reports regarding properties in the area, the former battery manufacturer and Flora Printers are not



considered to represent APECs on the subject property; however, the former Progressive Printers is considered to represent an APEC based on its proximity and length of operating time.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. The review period dates back to the first available air photos for the site. Based on the review, the following observations have been made:

1928	The subject property appears to be occupied by the existing residential buildings. Surrounding properties also appear to be fully developed with residential and/or commercial buildings.
1947	(Poor quality) No significant changes appear to have been made to the subject site or surrounding properties.
1969	No changes appear to have been made to the subject property. Surrounding properties appear to be mostly residential. Retail fuel outlets are present to the east at 450 Bank Street and to the north at 429 Kent Street.
1976	No significant changes appear to have been made to the subject site or surrounding properties.
1985	No significant changes appear to have been made to the subject site or surrounding properties.
1999	(Poor quality) No significant changes appear to have been made to the subject site or surrounding properties.
2008	(City of Ottawa) No significant changes appear to have been made to the subject site or surrounding properties.
2017	(City of Ottawa) No significant changes appear to have been made to the subject site. The retail fuel outlet to the north at 429 Kent Street has been redeveloped with a residential apartment building.

Laser copies of selected aerial photographs reviewed are included in Appendix 1.



Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate that the regional topography in the general area of the site slopes gradually downward to the south/southeast. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada – The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: "The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets." The subject site is located in the Central St. Lawrence Lowland, which is generally less than 150 m above sea level.

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of shale of the Billings formation. Overburden soils consist of alluvial sediment, with a drift thickness on the order to 5 to 10 m.

Water Well Records

A search for water well records was conducted online on December 13, 2017 using the Well Records mapping system provided by the MOECC. A total of 16 well records and one well abandonment record were returned. Seven of the records pertained to groundwater monitoring wells located at 37 Flora Street (former automotive service garages and printers). No new concerns were identified in the water well record search. No records of potable water wells were returned.

Water Bodies and Areas of Natural Significance

No creeks, rivers, streams, lakes or any other water body was identified in the Phase I study area.



5.0 INTERVIEWS

Property Owner Representative

Mr. Dave Brady, the current property manager, was interviewed as part of the Phase I-ESA. Mr. Brady indicated that he has been involved in the management of the property for approximately 30 years and that the buildings are at least 60 years old. The buildings have been used since their construction as residential dwellings.

Currently, each building is heated with a natural gas furnace; there are two furnaces at 423 and 425 McLeod Street. A basement is present beneath each building, covering the original building footprints. Additions have been made to all three structures, towards the rear of each property.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site visit was conducted on December 14, 2017. Ms. Anna Graham from the Environmental Department of Paterson Group conducted the site assessment. In addition to the site, the uses of neighbouring properties within the Phase I study area were also assessed at the time of the site visit.

6.2 Specific Observations at Phase I Property

Buildings and Structures

443 Kent Street

The subject building at 443 Kent Street is a two storey residential building with a basement. The building occupies approximately half of the property, while the eastern/rear portion is used for surface parking. The building is heated by a natural gas furnace. The exterior of the building is finished primarily with vinyl siding.

447 Kent Street

The subject building at 447 Kent Street is a two storey residential building with two apartment units and a basement. The building occupies the majority of the property, while the eastern/rear portion is used for surface parking. The building



is heated by a natural gas furnace. The exterior of the building is finished primarily with vinyl siding.

423 and 425 McLeod Street

The subject building at 423/425 McLeod Street is a two storey residential duplex building with four apartment units and a basement. The building occupies the majority of the property, while the eastern laneway is used for surface parking. The building is heated by two natural gas furnaces. The exterior of the building is finished primarily with brick.

Underground Utilities

The buildings on the subject site are serviced with municipal water and sewers.

Site Features

The majority of the property is occupied by the three subject buildings. The rear portion of 443 and 447 Kent Street is used as a parking area. The site was snow covered at the time of the site visit. No unusual staining or odours were noted on the property exterior.

Interior Assessment

At the time of the site inspection, all units and the majority of the basement areas were accessed.

A general description of the interior of the subject building at 443 Kent Street is as follows:

- Floors within the tenant spaces consisted of a combination of carpet, linoleum, and vinyl flooring, with concrete in the basement.
- Walls within the tenant spaces consisted of drywall and plaster.
- Ceilings consisted of drywall and/or plaster.

A general description of the interior of the subject building at 447 Kent Street is as follows:

- Floors within the tenant spaces consisted of a combination of carpet on the stairs, laminate flooring, vinyl flooring and ceramic tile.
- Walls within the tenant spaces consisted of drywall and plaster

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 Ceilings consisted of drywall and plaster, including some stucco and decorative plaster finishes.

A general description of the interior of the subject building at 423/425 McLeod Street is as follows:

- Floors within the tenant spaces consisted of a combination of carpet, laminate, vinyl flooring and ceramic tile.
- Walls within the tenant spaces consisted of drywall, paneling, and plaster including stucco finishes.
- Ceilings consisted of drywall and plaster.

Storage Tanks

No underground or aboveground storage tanks were noted on the property.

Heating/Cooling System

The buildings are heated with natural gas forced air furnaces.

Drains, Pits and Sumps

No floor drains or sump pits were observed in any of the buildings. According to the property manager, there are no drains or moisture problems in the buildings.

Unidentified Substances

There were no unidentified substances on the interior or exterior of the subject property at the time of this assessment.

Sewage Works

The site is connected to the City of Ottawa sanitary sewer system. Given the urban setting, no private sewage systems are suspected to exist on the subject site or in the Phase I study area.

Waste Storage and Disposal

Domestic waste is collected on a regular basis by the City of Ottawa.

Railway Lines

There are no rail yards, tracks or spurs within the Phase I study area.

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Ozone Depleting Substances (ODSs)

No significant potential sources of ODSs were observed on site at the time of the site inspection, with the exception of fire extinguishers and refrigerator units.

Building Material Assessment

Possible asbestos-containing materials observed during the site include drywall joint compound, laminate flooring, plaster, and vinyl floor tiles. These materials were observed to be in poor to good condition at the time of the assessment.

Based on the age of the building, lead based paint may be present beneath more recent coats of paint, on any original or re-painted surfaces. Painted surfaces were generally in good condition at the time of the assessment.

Urea Formaldehyde Foam Insulation (UFFI) was not identified during the site visit; however, the wall cavities were not inspected for insulation type.

Neighbouring Properties

An inspection of the neighbouring properties was conducted from publicly accessible roadways at the time of the site inspection. Land use adjacent to the subject site was as follows:

- North Residential row homes, Couvrette Photography, and Mike's Gladstone Auto Repair, followed by Gladstone Avenue;
- South McLeod Street, followed by residential dwellings;
- East Residential dwellings;
- West Kent Street, followed by residential dwellings.

With the exception of the automotive repair garage at 426 Gladstone Avenue, the current use of the immediately adjacent properties is not considered to pose an environmental concern to the subject site. Surrounding land use is shown on Drawing PE4194-2 – Surrounding Land Use Plan in the Figures section of this report.



7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following table indicates the current and past uses of the site as well as associated potentially contaminating activities dating back to the first developed use of the site.

Table 2 - Land Use History					
Time Period	Land Use	Potentially Contaminating Activities	Potential Environmental Concerns		
Prior to 1888	Residential	None	None		
1888 to 1960	Residential	None	None		
1960	Residential, laundry (1959 to 1962 at 447 Kent Street)	None	None		
1960 to Present	Residential	None	None		

Potentially Contaminating Activities

The following potentially contaminating activities were identified on the subject site and in the Phase I study area:

- Former Progressive Printers, 430 Gladstone Avenue (adjacent north)
- Former John Fern's Garage, 430 Gladstone Avenue (adjacent north)
- Former Art's Repair Garage and former Detroit Motors Repairs, 426
 Gladstone (adjacent north-northeast) currently Mike's Gladstone Auto Repair
- Former retail fuel outlet and automotive service garage, 429 Kent Street
- Former automotive service garage, 428 Kent Street
- Former automotive service garage, 417 Gladstone Avenue
- Former dry cleaners, 406 Gladstone Avenue
- Former automotive service garage, 490 Kent Street

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- Former automotive service garage, 478, 480 Gladstone Avenue
- Former automotive service garage, 24 Florence Street
- Former retail fuel outlet, 396 Bank Street
- Former retail fuel outlet, 455 Bank Street
- Former automotive service garage, 377 McLeod Street
- Former automotive service garage, 464 Bank Street
- Former printers, 482 Bank Street
- Former printers and automotive service garages, 37-47 Flora Street
- Former dry cleaners, 255 Argyle Street
- Former printers, 502 Bank Street
- Retail fuel outlet, 450 Bank Street
- Hydro transformer substation, 497 Gladstone Avenue (PCA 55)
- Automotive service garage, 410 Gladstone Avenue
- Former retail fuel outlet and automotive service garage, 431-437 Gladstone Avenue
- Former automotive repair garages, 459-461 Gladstone Avenue
- Former body shop, 474 Gladstone Avenue
- Former automotive service garage, 477 Gladstone Avenue
- Former printers, 486 Gladstone Avenue

None of the PCAs are considered to result in APECs on the subject site, with the exception of the PCAs on 426 and 430 Gladstone Avenue.

Areas of Potential Environmental Concern

The Areas of Potential Environmental Concern identified in this Phase I ESA are described in Table 2.



Table 3 - Areas of Potential Environmental Concern					
Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern with respect to Phase I Property	Potentially Contaminating Activity	Location of PCA (on-site or off- site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
Former Progressive Printers; Former John Fern's Garage	Adjacent to the north, at 430 Gladstone Avenue	Printers (no item); Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems	Off-site	PHC F1-F4, BTEX	Soil, Groundwater
Former automotive repair garages; Former Edward Watt Coal and Oil	Shared property corner to the north of the subject site at 426 Gladstone Avenue	Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems	Off-site	PHC F1-F4, BTEX	Soil, Groundwater

Contaminants of Potential Concern

Based on the identified areas of potential environmental concern, the following Contaminants of Potential Concern (CPCs) have been identified:

- Petroleum Hydrocarbons Fractions 1 through 4 (PHCs F1-F4) this suite of parameters encompasses gasoline (Fraction 1), diesel and fuel oil (Fraction 2), and heavy oils (Fractions 3 and 4). PHCs F1-F4 was selected as a CPC due to the former presence of coal and oil storage and repair garages to the north. PHCs may be present in the soil matrix, sorbed to soil particles, as well as in free or dissolved phase in the groundwater system.
- Benzene, toluene, ethylbenzene, xylenes (BTEX) this suite of parameters includes benzene, toluene, ethylbenzene, and xylenes, associated with gasoline products used at service garages.

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7.2 Conceptual Site Model

Geological and Hydrogeological Setting

The Phase I property is located in an area of shale of the Billings formation. Overburden soils consist of alluvial sediment, with a drift thickness on the order to 5 to 10 m.

Contaminants of Potential Concern

Contaminants of potential concern include BTEX and PHC F1-F4.

Existing Buildings and Structures

The subject site is currently occupied by three (3) two-storey residential buildings with one basement level below each.

Water Bodies

There are no water bodies on the subject site or within the Phase I study area.

Areas of Natural Significance

No areas of natural significance were identified on the site or in the Phase I study area.

Drinking Water Wells

No drinking water wells are located at the subject site or within the Phase I study area.

Neighbouring Land Use

Currently, neighbouring land use in the Phase I study area is commercial and residential.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

Potentially Contaminating Activities resulting in Areas of Potential Environmental Concern identified on the subject site include the northern part of the site (443 Kent Street) due to Mike's Gladstone Auto Repair currently at 426 Gladstone Avenue, and the former Progressive Printers, John Fern's Garage, Art's Auto Repair, Detroit Motors Auto Repairs, and Edward Watt Coal and Oil, located to the northeast. Other potentially contaminating activities in the area are not considered to have created areas of potential environmental concern on the

December 14, 2017

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subject site, based on their separation distances, downgradient location with respect to groundwater flow direction, and/or available documentation regarding those concerns.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I ESA is considered to be sufficient to conclude that there are areas of potential environmental concern on the subject site. The presence of potentially contaminating activities was confirmed by a variety of independent sources, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

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8.0 CONCLUSIONS

Assessment

Paterson Group was retained by CHSS International Investments and Management Inc. to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 443 and 447 Kent Street, and 423 and 425 McLeod Street, in the City of Ottawa, Ontario. The purpose of this Phase I-Environmental Site Assessment (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.

According to the historical research, the subject site was first developed with the existing detached residential dwellings at 443 and 447 Kent Street and residential duplex dwelling at 423 and 425 McLeod Street as early as 1888. No potentially contaminating activities were identified on the subject property.

Several potentially contaminating activities were identified on surrounding properties. The majority of these activities are not considered to have resulted in areas of potential environmental concern on the subject site. The PCAs that are considered to represent Areas of Potential Environmental Concern on the subject site include the former printers and automotive service garage at 430 Gladstone Avenue (adjacent to the north of the subject site), and a former automotive service garage and coal and oil business, at 426 Gladstone Avenue.

Following the historical research, a site inspection was conducted of the subject site and Phase I ESA study area. The subject site is currently occupied by a two two-storey residential dwelling at 443 Kent Street, a two-storey residential building with two apartment units at 447 Kent Street, and a two-storey duplex building on McLeod Street (currently 4 apartment units). No ASTs or signs of USTs were observed at the subject site. No concerns were noted with respect to the current use of the subject site. Several properties in the Phase I study area are currently considered to be potentially contaminating activities, including automotive service garages to the north, at 406-410 and 426 Gladstone Avenue.

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Recommendations

Based on the results of this Phase I-ESA a Phase II Environmental Site Assessment is required for the property.

Based on the age of the buildings, it is considered possible that asbestos containing materials have been used. If one has not already been prepared, an asbestos survey should be conducted at the building. Lead-containing paints may be present within the subject building based on its date of construction. A designated substances survey (DSS) must be completed on the subject building prior to commencing any renovation or demolition activities.

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9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04 as amended by O.Reg. 269/11, and meets the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA 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 CHSS International Investments Management Inc. Permission and notification from CHSS International Investments and Management Inc. and Paterson will be required to release this report to any other party.

ROFESSION

M. S. D'ARCY 90377839

VCE OF ON

Paterson Group Inc.

Anna Graham, M.E.S.

Mark S. D'Arcy, P.Eng.

Report Distribution:

- CHSS International Investments and Management Inc.
- Paterson Group Inc.

Report: PE4194-1



10.0 REFERENCES

Federal Records

Air photos at the Energy Mines and Resources Air Photo Library.

National Archives.

Maps and photographs (Geological Survey of Canada surficial and subsurface mapping).

Natural Resources Canada – The Atlas of Canada.

Environment Canada, National Pollutant Release Inventory.

PCB Waste Storage Site Inventory.

Provincial Records

MOECC Freedom of Information and Privacy Office.

MOECC Municipal Coal Gasification Plant Site Inventory, 1991.

MOECC document titled "Waste Disposal Site Inventory in Ontario".

MOECC Brownfields Environmental Site Registry.

Office of Technical Standards and Safety Authority, Fuels Safety Branch.

MNRF Areas of Natural Significance.

MOECC Water Well Inventory.

Chapman, L.J., and Putnam, D.F., 1984: 'The Physiography of Southern Ontario, Third Edition', Ontario Geological Survey Special Volume 2.

Municipal Records

City of Ottawa Document "Old Landfill Management Strategy, Phase I - Identification of Sites.", prepared by Golder Associates, 2004.

The City of Ottawa Historical Land Use Inventory.

Intera Technologies Limited Report "Mapping and Assessment of Former Industrial Sites, City of Ottawa", 1988.

The City of Ottawa eMap website.

Local Information Sources

Personal Interviews.

Public Information Sources

Google Earth.

Google Maps/Street View.

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FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4194-1 – SITE PLAN

DRAWING PE4194-2 – SURROUNDING LAND USE PLAN

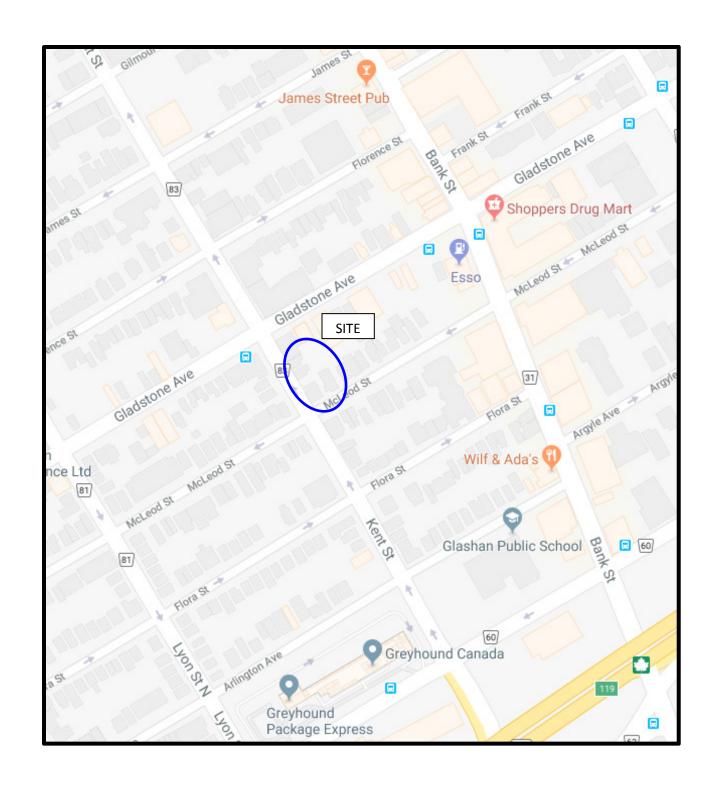


FIGURE 1 KEY PLAN

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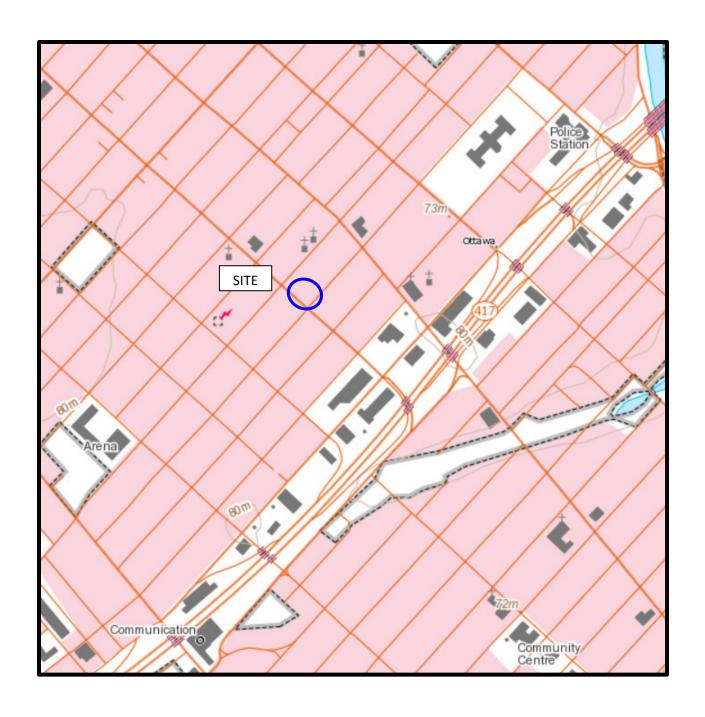
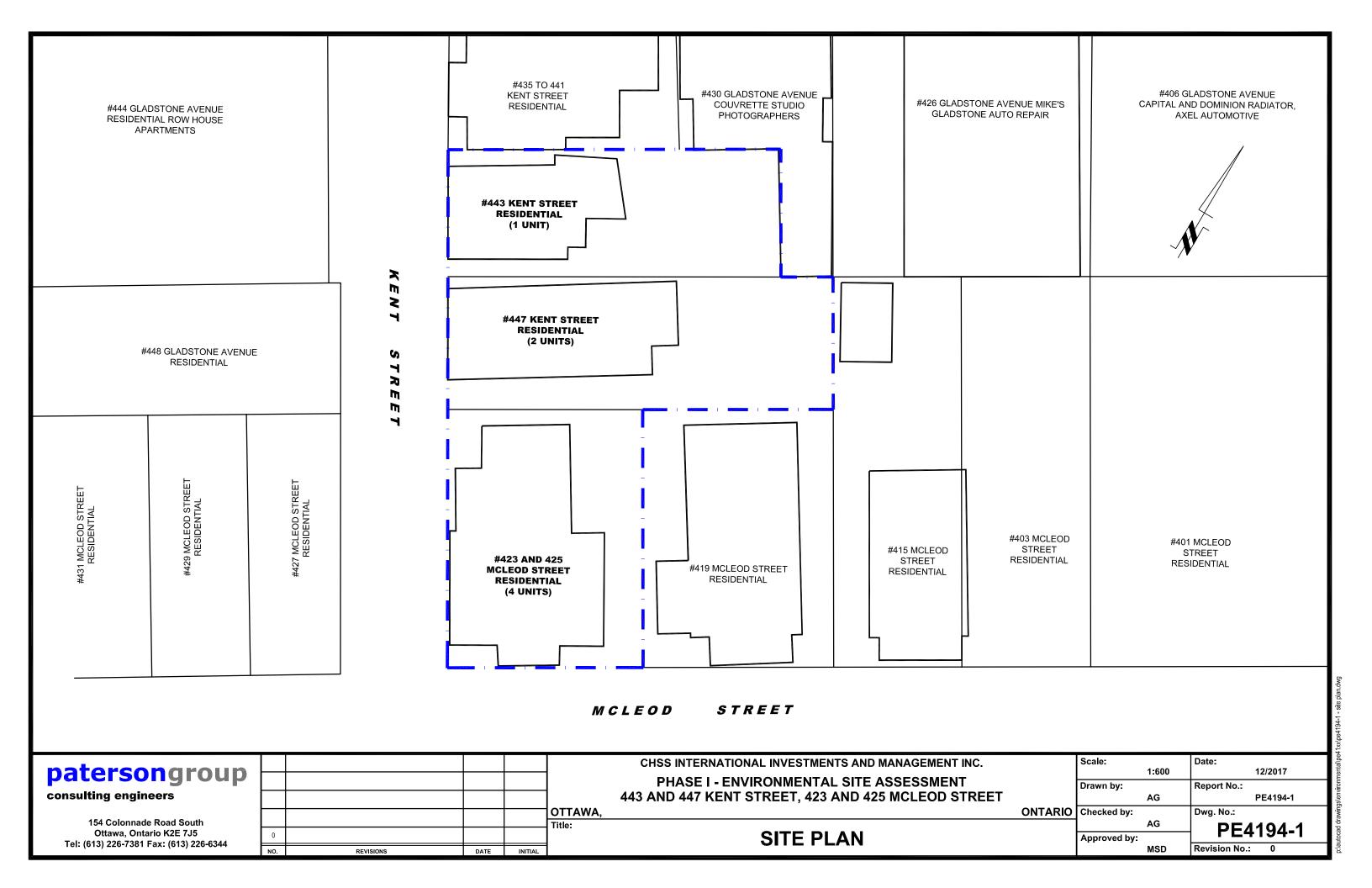
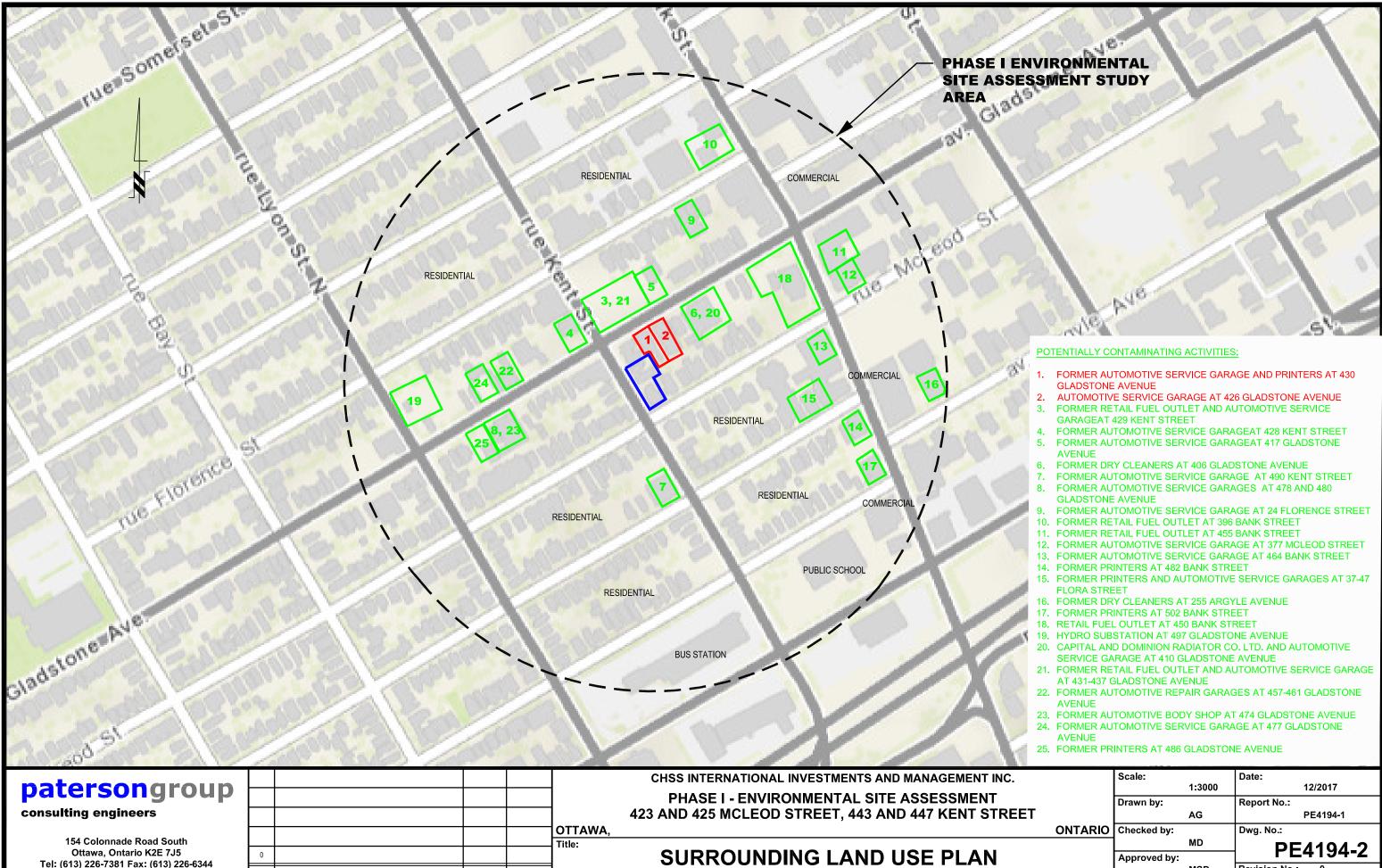


FIGURE 2 TOPOGRAPHIC MAP

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lautocad drawingslenvironmentalloe41xx\oe4194-2 surrounding land.dw

MSD

Revision No.:

APPENDIX 1

AERIAL PHOTOGRAPHS
SITE PHOTOGRAPHS



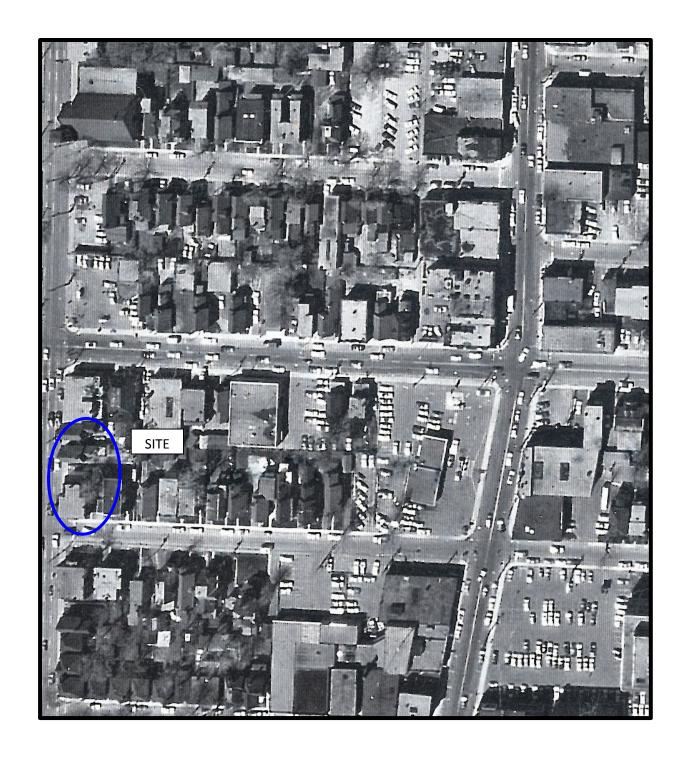
AERIAL PHOTOGRAPH 1928

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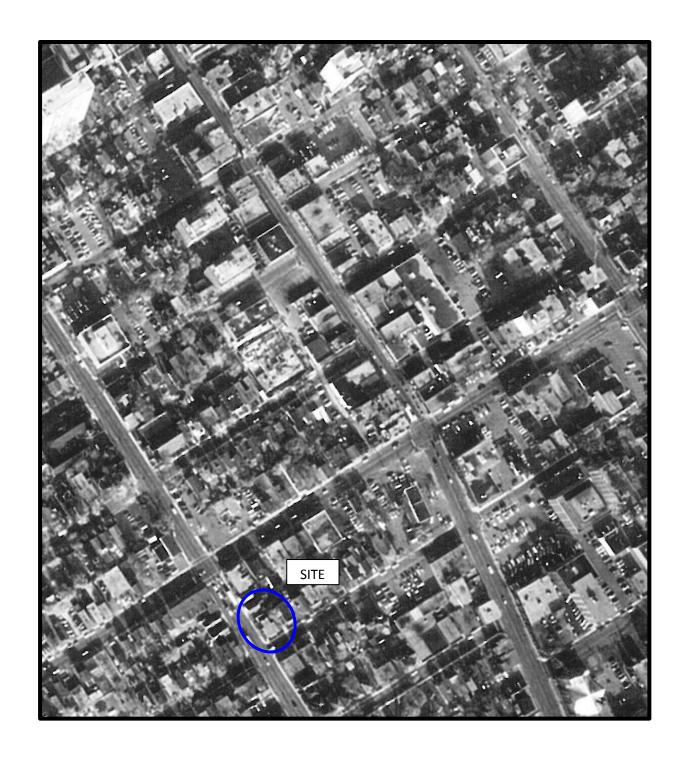
AERIAL PHOTOGRAPH 1947

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AERIAL PHOTOGRAPH 1969

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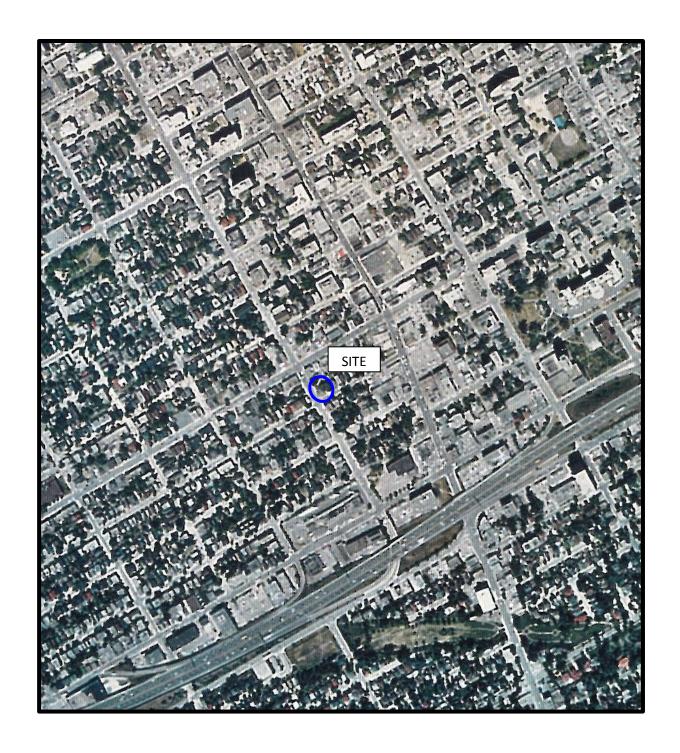
AERIAL PHOTOGRAPH 1976

patersongroup _____



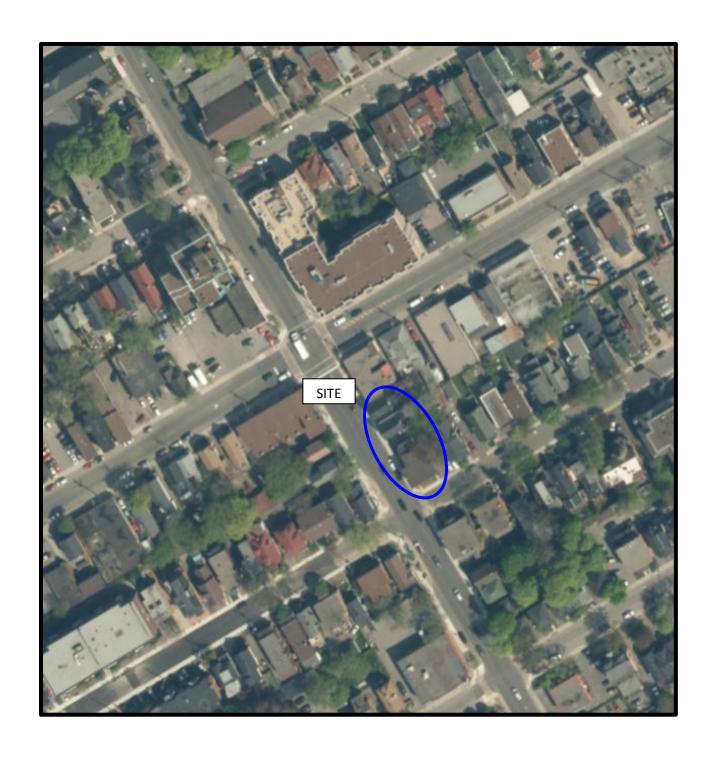
AERIAL PHOTOGRAPH 1985

patersongroup _____



AERIAL PHOTOGRAPH 1999

patersongroup



AERIAL PHOTOGRAPH 2017

patersongroup —

Site Photographs

PE4194

443 and 447 Kent Street, 423 and 425 McLeod Street, Ottawa, ON December 14, 2017



Photograph 1: Front of 423 and 425 McLeod Street, looking north.



Photograph 2: View of 443 and 447 Kent Street, looking north, up Kent Street.

Site Photographs

PE4194

443 and 447 Kent Street, 423 and 425 McLeod Street, Ottawa, ON December 14, 2017



Photograph 3: Stone foundation and plastered ceiling in the basement at 447 Kent Street.



Photograph 4: Stone foundation in the basement at 423 McLeod Street.

Site Photographs

PE4194

443 and 447 Kent Street, 423 and 425 McLeod Street, Ottawa, ON December 14, 2017



Photograph 5: Vinyl floor tile in poor condition at 423/425 McLeod Street.



Photograph 6: Cleaning supplies in the basement at 443 Kent Street.

APPENDIX 2

MOECC FREEDOM OF INFORMATION REQUEST
CITY OF OTTAWA HISTORICAL LAND USE INVENTORY REQUEST



Freedom of Information Request

This form is for requesting documents which are in the Ministry's files on environmental concerns related to properties. Please refer to the guide on completion and use of this form. Our fax no. is (416) 314-4285.

Requester Data		For Ministry Use Only					
Name, Company Name, Mailing Address and Email Address of Requester Anna Graham			FOI Requ	est No.		Date Request Received	
Paterson Group Inc.							
154 Colonnade Road Ottawa, ON K2E 7J5			Fee Paid			\/\6\\\\\ □	
Email address: agraham@patersongroup.ca			□ ACCT	□ CHQ	<u></u>	VISA/MC □ CASH	
Telephone/Fax Nos.		Your Project/Reference No.	Signature/Print /Name of Requester			NO	
Tel. 613-226 Fax 613-226		PE4194	Anna Graham	□ CNR □ SAC		NOI EA	
			Request Parameter				
			address essential for cities, towns or region	ons)			
443 and 447 Kent Si PIN: 04119-0261; 04		va, Ontario. One site, sa	nme owner				
Present Property Owner(s) an	d Date(s) of Own	nership Seun Kan					
Previous Property Owner(s) and	nd Date(s) of Ow	vnership					
Present/Previous Tenant(s),(if	applicable)						
Search Parameters						Specify Year(s) Requested	
Files older than 2 years	s may require	e \$60.00 retrieval cost. The	ere is no guarantee that records responsive	e to your reques	st will be located.		
Environmental concerns (General correspondence, occurrence reports, abatement)						all	
Orders					-	all	
Spills all							
Investigations/prosecutions ➤ Owner AND tenant information must be provided				_	all		
Waste Generator number/classes				all			
Certificates of Approval ➤ Proponent information must be provided 1985 and prior records are searched manually. Search fees in excess of \$300.00 could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number(s) (if known). If supporting documents are also required, mark SD box and specify type e.g. maps, plans, reports, etc.							
					SE		Specify Year(s) Requested
air - emissions			-	1986-present			
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)				\perp	1986-present		
Sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations					1986-present		
waste water - industrial discharges					1986-present		
waste sites - disposal, landfill sites, transfer stations, processing sites, incinerator sites				\perp	1986-present		
waste systems - PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste				\perp	1986-present		
pesticides - licenses					1986-present		

A \$5.00 non-refundable application fee, payable to the Minister of Finance, is mandatory. The cost of locating on-site and/or preparing any record is \$30.00/hour and 20 cents/page for photocopying and you will be contacted for approval for fees in excess of \$30.00.

0026 (05/02) Page 1 of 1



Freedom of Information Request

This form is for requesting documents which are in the Ministry's files on environmental concerns related to properties. Please refer to the guide on completion and use of this form. Our fax no. is (416) 314-4285.

Requester Da	For Ministry Use Only				
Name, Company Name, Mailing Address and Email Address of Requester	FOI Request No.	Date Request Received			
Anna Graham		i Oi Nequest No.			
Paterson Group Inc. 154 Colonnade Road		For Dold			
Ottawa, ON K2E 7J5	Fee Paid ACCT CHQ	□ VISA/MC □ CASH			
Email address: agraham@patersongroup.ca			UNA/IVIU LI CAOFI		
Telephone/Fax Nos. Your Project/Reference No	Signature/Print /Name of Requester				
Tel. 613-226-7381	Anna Graham		NOR □ SWR □ WCR EAA □ EMR □ SWA		
Fax 613-226-6344					
	Request Parameters				
Municipal Address / Lot, Concession, Geographic Township (Munici		ons)			
423 and 425 McLeod Street, Ottawa, Ontario. One s PIN: 04119-0258	ite (one building), same owner				
Present Property Owner(s) and Date(s) of Ownership Seun K	an				
Previous Property Owner(s) and Date(s) of Ownership					
Present/Previous Tenant(s),(if applicable)					
s	Specify Year(s) Requested				
Files older than 2 years may require \$60.00 retrieval cost.	There is no guarantee that records responsive	e to your request will be located.			
Environmental concerns (General corresponde	all				
Orders	all				
Spills all					
Investigations/prosecutions > Owner AND te	all				
Waste Generator number/classes	all				
Certificates of Approval ➤ Proponent information must be provided 1985 and prior records are searched manually. Search fees in excess of \$300.00 could be incurred, depending on the types and years to be searched. Specify					
Certificates of Approval number(s) (if known). If supporting documents are also required, mark SD box and specify type e.g. maps, plans, reports, etc.					
		SD	Specify Year(s) Requested		
air - emissions	1986-present				
water - mains, treatment, ground level, standpipes & elev	1986-present				
sewage - sanitary, storm, treatment, stormwater, leachat	1986-present				
waste water - industrial discharges	1986-present				
waste sites - disposal, landfill sites, transfer stations, pro	1986-present				
waste systems - PCB destruction, mobile waste proces	1986-present				
pesticides - licenses	1986-present				

A \$5.00 non-refundable application fee, payable to the Minister of Finance, is mandatory. The cost of locating on-site and/or preparing any record is \$30.00/hour and 20 cents/page for photocopying and you will be contacted for approval for fees in excess of \$30.00.

0026 (05/02) Page 1 of 1

	Office Use Only		
Application Number:	Ward Number:	Application Received:	(dd/mm/yyyy):
Client Service Centre Staff:		Fee Received: \$	



Historic Land Use Inventory

Application Form

Notice of Public Record

All information and materials required in support of your application shall be made available to the public, as indicated by Section 1.0.1 of *The Planning Act*, R.S.O. 1990, C.P.13.

Municipal Freedom of Information and Protection Act

Personal information on this form is collected under the authority the *Planning Act*, RSO 1990, c. P. 13 and will be used to process this application. Questions about this collection may be directed by mail to Manager, Business Support Services, Planning Infrastructure and Economic Development Department, 110 Laurier Avenue West, Ottawa, K1P 1J1, or by phone at (613) 580-2424, ext. 24075

		Background In	formation
*Site Address or Location:	* Mandatory Field		
Applicant/Agent Ir	nformation:		
Name:			
Mailing Address:			
Telephone:		Email Address:	
Registered Proper	ty Owner Information:	Same as abov	e
Name:			
Mailing Address:			
Telephone:		Email Address:	

Site Details	
m Lot depth: m Lot area: m² area: (irregular lot) m² have Full Municipal Services: Yes No	
Required Fees	
e to visit <u>the Historic Land Use Inventory</u> website ees must be paid in full at the time of application submission.	
Submittal Requirements	

The following are required to be submitted with this application:

- 1. Consent to Disclose Information: Consultants and other third parties may make requests for information on behalf of an individual or corporation. However, if the requester is not the owner of the property, the requester must provide the City of Ottawa with a 'consent to disclose information' letter, signed by the property owner. This will authorize the City of Ottawa to release any relevant information about the property or its owner(s) to the requester. Consent for disclosure is required in the event that personal information or proprietary company information is found concerning the property and its owner. All consents must clearly indicate the name of the property owner as well as the name of the requester, and must be signed and dated.
- 2. **Disclaimer:** Requesters must read and understand the conditions included in the attached disclaimer and submit a signed disclaimer to the City of Ottawa's Planning, Infrastructure and Economic Development Department. This disclaimer is related to the Historic Land Use Inventory and must be received by the City of Ottawa, signed and dated by the requestor, before the process can begin.
- **3.** A site plan or key plan of the property, its location and particular features.
- **4.** Any significant dates or time frames that you would like researched.

Disclaimer For use with HLUI Database

CITY OF OTTAWA ("the City") is the owner of the Historical Land Use Inventory ("HLUI"), a database of information on the type and location of land uses within the geographic area of Ottawa, which had or have the potential to cause contamination in soil, groundwater or surface water.

The City, in providing information from the HLUI, to	("the Requester") does so only under the following
conditions and understanding:	

- 1. The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.
- 2. City staff will perform a search of the HLUI based on the information given by the Requester. City staff will make every effort to be accurate, however, the City does not provide an assurance, guarantee, warranty, representation (express or implied), as to the availability, accuracy, completeness or currency of information which will be provided to the Requester. The HLUI in no way confirms the presence or absence of contamination or pollution of any kind. The information provided by the City to the Requester is provided on the assumption that it will not be relied upon by any person whatsoever. The City denies all liability to any such persons attempting to rely on any information provided from the HLUI database.
- 3. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.
- 4. Copyright is reserved to the City.
- 5. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.
- 6. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.
- 7. All information collected under this request and all records provided in response to this request are subject to the provisions of the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. M.56, as amended.

Signed:	
Dated (dd/mm/yyyy):	
Per:	
(Please print name)	
Title:	
Company:	

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Anna Graham, M.E.S.

patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

Environmental Assessor

EDUCATION

McGill University, B.Sc. 2010 Biology and English Literature

Queen's University, M.E.S. 2012 Environmental Studies

EXPERIENCE

2014 to Present

Paterson Group Inc.

Consulting Engineers Environmental Assessor

2013 to 2014

Civica Infrastructure Inc.

Municipal Water Resources Engineering - Vaughan Project Support Coordinator, Project Proposal Writer

PROJECTS

Environmental Impact Statements – various, Ottawa Phase I Environmental Site Assessments – various, Ottawa Flood Mapping Project Coordination – Credit Valley Conservation Authority Manhole Survey Tool Design and Data Processing – City of Markham Proposal Preparation – Utilities Kingston Inflow and Infiltration Study, City of Peterborough Drainage Study

Mark S. D'Arcy, P. Eng.

patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

Associate and Supervisor of the Environmental Division Senior Environmental/Geotechnical Engineer

EDUCATION

Queen's University, B.A.Sc.Eng, 1991 Geotechnical / Geological Engineering

MEMBERSHIPS

Ottawa Geotechnical Group Professional Engineers of Ontario

EXPERIENCE

1991 to Present

Paterson Group Inc.

Associate and Senior Environmental/Geotechnical Engineer Environmental and Geotechnical Division Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island

Agricultural Supply Facilities - Eastern Ontario

Laboratory Facility – Edmonton (Alberta)

Ottawa International Airport - Contaminant Migration Study - Ottawa

Richmond Road Reconstruction - Ottawa

Billings Hurdman Interconnect - Ottawa

Bank Street Reconstruction - Ottawa

Environmental Review - Various Laboratories across Canada - CFIA

Dwyer Hill Training Centre - Ottawa

Nortel Networks Environmental Monitoring - Carling Campus - Ottawa

Remediation Program - Block D Lands - Kingston

Investigation of former landfill sites - City of Ottawa

Record of Site Condition for Railway Lands - North Bay

Commercial Properties - Guelph and Brampton

Brownfields Remediation - Alcan Site - Kingston

Montreal Road Reconstruction - Ottawa

Appleford Street Residential Development - Ottawa

Remediation Program - Ottawa Train Yards

Remediation Program - Bayshore and Heron Gate

Gladstone Avenue Reconstruction – Ottawa

Somerset Avenue West Reconstruction - Ottawa
