

**Geotechnical
Engineering**

**Environmental
Engineering**

Hydrogeology

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Materials Testing

Building Science

**Archaeological
Services**

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Phase I Environmental Site Assessment

2710 Draper Avenue
(2704, 2706, 2724 and 2734 Draper Avenue)
Ottawa, Ontario

Prepared For

Greatwise Developments

Paterson Group Inc.

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April 28, 2017

Report: PE4018-1

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Greatwise Developments to conduct a Phase I Environmental Site Assessment (ESA) on a residential property located at 2704, 2706, 2724, and 2734 Draper Avenue, 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.

According to the historical research, the subject site and surrounding properties were used for agricultural purposes until the early 1960s when residential development of the area started.

The subject site has been occupied by four residential townhome buildings each with twelve units, since its development in the early 1960s. The buildings were initially heated by fuel oil. As previously discussed, the past use of furnace oil on the site is considered to have been addressed and therefore does not represent an environmental concern to the subject property.

Following the historical research, an inspection was conducted of the subject site and Phase I ESA study area. The buildings are residential townhome complexes with twelve units in each building. No environmental concerns were identified during the site visit.

Conclusion

Based on the results of this Phase I Environmental Site Assessment, **in our opinion a Phase II-Environmental Site Assessment will not be required for the property at this time.**

Recommendations

Building Materials

Based on the approximate age of the subject buildings, asbestos containing materials may be present within the structures. Potential ACMs observed were vinyl floor tiles, drywall joint compound, ceiling tiles, and hard plaster. These materials were noted to be in fair to good condition at the time of the site visit and do not represent an immediate concern. An asbestos survey of the building must be conducted in accordance with Ontario Regulation 278/05, under the Occupational Health and Safety Act, prior to the disturbance of any potential ACMs.

Lead-based paints may be present within the subject building based on their approximate age (1960s). Lead testing should be conducted in the buildings prior to the disturbance of painted surfaces. Major work involving lead painted surfaces, including demolition of the subject buildings, must be done in accordance with Ontario Regulation 490/09, under the Occupational Health and Safety Act.

1.0 INTRODUCTION

At the request of Greatwise Developments, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) of 2704, 2706, 2724 and 2734 Draper Avenue, 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 Greatwise Developments, whose office is located at 333 Wilson Avenue, Toronto, Ontario.

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 the requirements of 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: 2704, 2706, 2724 and 2734 Draper Avenue, City of Ottawa.

Legal Description: Draft Plan of Condominium of Part of Block G Registered Plan 447761, City of Ottawa

Location: The subject site is located on the south side of Draper Avenue, at the intersection of Morrison Drive. The subject site is shown on Figure 1 - Key Plan following the body of this report.

Latitude and Longitude: 45° 20' 23" N, 75° 47' 39" W.

Site Description:

Configuration: Irregular.

Site Area: 1.2 hectares (approximate).

Zoning: R5 – Residential.

Current Use: Residential

Services: The neighbourhood is serviced with municipal services.

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.

4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

A radius of 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

Based on the personal interviews, aerial photographs, and documents reviewed, the subject site was used for agricultural purposes until its development with the existing townhome complex in the early 1960s.

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) are not available for the subject site.

City of Ottawa Street Directories

City directories at the National Archives were reviewed in approximate 10 year intervals from 1945 to 2011 as part of the Phase I ESA.

Based on a review of the street directories, the subject site is not listed until 1965 when it is initially listed as apartments. The subject site remains listed as apartments or townhouses during all years reviewed in the city directories.

Properties on adjacent roadways are listed as primarily residential properties with the occasional commercial business.

No concerns were identified with respect to the subject property in the city directories.

No potentially contaminating activities within the Phase I Study Area were identified in the review of the city directories. As a result, no areas of potential environmental concern (APEC) were identified during the review of the city directories.

Chain of Title

A chain of title was requested from Read Abstracts for the subject site. The property was owned by private individuals until 1956 when it was transferred to Redwood Land Company Limited. The property has remained in the hands of Redwood or a similar company since that time. The property is currently owned by Redwood Residences Limited.

Other Engineering Reports

- 'Phase I – Environmental Site Assessment, Residential Property, 2781, 2791, and 2797 Baseline Road 2704, 2706, 2724, and 2734 Draper Avenue, Ottawa, Ontario', prepared by Paterson, dated May 12, 2008.

Paterson completed a Phase I – ESA for a larger parcel of land which included the subject site. The historical research, including a review of a 1999 Phase I-II ESA report completed by John D. Paterson and Associates, indicated that the buildings were originally heated with fuel oil stored in underground storage tanks (USTs) reportedly buried outside of each of the buildings. John D. Paterson completed a Phase II ESA consisting of sixteen hand auger holes, placed in the area of the former USTs. No visual or olfactory signs of hydrocarbons were noted in any of the samples collected. Based on the findings of the hand auger holes no impacts were identified on the subject site.

A geotechnical investigation was completed concurrently at the time of the 2008 Phase I ESA. The investigation consisted of 17 boreholes placed throughout the site, as shown on the attached site plan. The subsurface profile consists of silty clay over silty sand, followed by glacial till. No evidence of furnace oil or other environmental concerns were identified during the subsurface investigation.

Based on the above investigations the former tanks are not considered to represent areas of potential environmental concern (APECs).

Site Plan

A plan of the proposed development was provided for review. The property boundaries are the same as the existing layout. The adjacent building to the southeast is in the same configuration as the time of the site visit. The building to the southwest has not been constructed.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on April 17, 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 (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 issuance of this report, a response had not been received. A copy of the response will be forwarded to the client should it contain any pertinent information.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within 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 issuance of this report, a response had not been received. A copy of the response will be forwarded to the client should it contain any pertinent information.

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 issuance of this report, a response had not been received. A copy of the response will be forwarded to the client should it contain any pertinent information.

MOECC Submissions

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

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 or any properties in the Phase I study area.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment 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. No active or closed waste disposal sites or any of the other listed sites were identified in the vicinity of the subject site.

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 (MNR) on April 17, 2017. The MNR website indicated that there were no recorded 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 April 19, 2017 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. The response from the

TSSA indicated that no records were found in the TSSA database for the subject site. At the time of issuance of this report, a response has not been received. A copy of the response will be forwarded to the client should it contain any pertinent information.

4.3 Physical Setting Sources

Aerial Photographs

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 and adjacent properties are being used for agricultural purposes. The occasional farmhouse can be seen along Baseline Road. |
| 1963 | The subject site is now under construction. Morrison Drive is visible. Several residential dwellings have been built or remain under construction to the north of the site. Further development takes place in the surrounding area as well. |
| 1973 | The subject site has been developed with the existing townhome complex. The adjacent properties are now developed approximately with the existing buildings. Several vacant lots remain in the Phase I ESA study area. |
| 1983 | No significant changes have been made to the subject site or the surrounding properties. |
| 1996 | No significant changes have been made to the subject site or surrounding properties. |
| 2007 | (City of Ottawa website) No significant changes have been made to the subject site or surrounding properties. |
| 2016 | (Google Earth) No significant changes have been made to the subject site. The adjacent property to the south has now been partially redeveloped. A large townhome complex has been constructed on the southeast portion of the adjacent property, while the southwest portion of the adjacent property remains under development. |

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 gently downward towards west. The nearest major water body is Graham Creek, approximately 200 m south of the subject site. 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 dolomite of the Oxford Formation. Overburden soils are shown to be clay and silt, with a drift thickness of approximately 10-15 m.

Water Well Records

A search of MOECC’s online water well records database was completed on April 17, 2017, for all drilled wells within 300 m of the subject site. Two well records were identified during the search. Both well records are for drinking water wells drill in the 1950s prior to the development of the area. Based on the development of the area with municipal water after the 1960s the water wells identified in the search are no longer considered to be in use.

No well records were identified for the subject site.

Water Bodies and Areas of Natural Significance

No areas of natural significance are known to exist within the Phase I study area.

Graham Creek is present approximately 200m to the south of the subject site. The creek runs east to west and eventually drains into the Ottawa River, approximately 4km to the north of the subject site.

5.0 INTERVIEWS

Property Owner Representative

Mr. Donald Morton, the site superintendent, was present during the site visit. Mr. Morton indicated that the property was developed with the existing residential buildings in approximately 1965. Mr. Morton indicated that the small maintenance building only ever contained small quantities of fuel for landscaping and maintenance equipment. Mr. Morton did not know of any environmental concerns relating to the subject site.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site assessment was conducted on April 24, 2017 between 9:30 AM and 11:00 AM. Weather conditions were mostly sunny with a temperature of approximately 7°C. Michael Beaudoin from the Environmental Department of Paterson Group conducted the site visit. Access was provided to each building and sample townhouse units at this time. 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 assessment.

6.2 Specific Observations at Phase I Property

Buildings and Structures

There are townhouse complexes and a sales centre on the subject site. Each townhouse complex is approximately of the same configuration with twelve rental units. One of the townhome complexes has a small maintenance shed attached to it. No other buildings and structures are present on the subject site.

The townhouse complexes are all of generally the same construction with brick exterior with either vinyl or wooden siding accents and a sloped asphalt shingled

rood. The interior of the building consisted of a communal hallway and twelve townhouse units. The interiors were finished with drywall and/or plaster walls and ceilings. The floors were finished with either carpet, vinyl floor tiles, hardwood, concrete, or linoleum.

Storage Tanks

No underground storage tanks were observed during the Phase I ESA site visit. A small aboveground tank used to power a backup generator for the adjacent property was observed on a trailer in the parking lot of the subject site. No stains or signs of spills were noted in the area of the tank. The tank is not considered to be an area of potential environmental concern.

Water Source

The subject site is situated in a municipally serviced area. Municipal drinking water is provided to all buildings.

Unidentified Substances

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

Groundwater Monitoring Wells

No groundwater monitoring wells were observed on the subject property at the time of this assessment.

Sewage Works

The subject site is located in a municipally serviced area. City sewer services are provided to all buildings.

Waste Storage and Disposal

The buildings all produce municipal solid waste. Waste is disposed of curbside during municipal pickup. No concerns relating to waste storage and disposal were observed on the subject site.

Railway Lines

There are no railway lines within the Phase I study area.

Ozone Depleting Substances (ODSs)

Refrigerators and fire extinguishers were observed in the townhome units at the subject site. These items are not considered to be a concern to the subject site provided they are properly maintained. There were no other potential sources of ODSs observed on site during the assessment.

Site Features

The subject property consists of four residential townhouse buildings, each with twelve units. Each unit has a small landscaped backyard area. Parking is located in communal areas along the south and east sides of the property.

Potentially Contaminating Activities (PCA)

No PCAs were observed on the subject site.

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 - Draper Avenue followed by residential properties and St. Paul High School;
- ☐ South - Residential buildings followed by Baseline Road, Grahams Creek, and residential properties;
- ☐ East - Residential townhouses;
- ☐ West - Morrison Drive followed by residential properties.

The current use of the immediately adjacent properties is not considered to pose an environmental concern to the subject site. Current land use in the Phase I Study area is illustrated on Drawing: PE4018-2 – Surrounding Land Use Plan in the Figures section of this report, following the text.

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 any associated potentially contaminating activities dating back to the first developed use of the site (if present).

Table 1 - Land Use History – 2704, 2706, 2724 and 2734 Draper Avenue			
Time Period	Land Use	Potentially Contaminating Activities	Potential Environmental Concerns
1951 (earliest air photo reviewed)- 1963	Agricultural	No	No
1963- Present	Residential	No	No

Potentially Contaminating Activities (PCAs)

No PCAs were identified on the subject site or within the Phase I ESA study area.

Areas of Potential Environmental Concern (APECs)

No PCAs were identified on the subject site or within the Phase I ESA study area therefore there are no APECs on the subject site.

Contaminants of Potential Concern

Since there are no APECs on the subject site there are no contaminants of potential concern for the subject site.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on information from the Geological Survey of Canada, drift thickness in the area of the subject site is shown to be 10 m - 15 m.

Contaminants of Potential Concern

As indicated in Section 7.1 of this report, no contaminants of potential concern exist for the subject site.

Existing Buildings and Structures

The subject site is occupied by four townhouse buildings, each with 12 units, and the associated landscaped and parking areas.

Water Bodies

Graham Creek is located approximately 200m to the south of the subject site. The creek runs east to west and drains into the Ottawa River, approximately 4km to the north of the subject site.

Areas of Natural Significance

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

Drinking Water Wells

A search of MOECC's online water well records database was completed on April 17, 2017, for all drilled wells within 300 m of the subject site. Two drinking water wells, drilled in the 1950s prior to the development of the subject site and surrounding area, were identified during the online search. The wells are no longer considered to be active and are likely to have been decommissioned with the development of the area and the installation of municipal water and sewer services.

Neighbouring Land Use

Neighbouring land use in the Phase I study area is residential. No APECs were identified during a study of the neighbouring land use.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no potentially contaminating activities were identified therefore there are no APECs present on the subject site.

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 no areas of potential environmental concern on the subject site which have the potential to have impacted the subject site.

As such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Greatwise Developments to conduct a Phase I Environmental Site Assessment (ESA) on a residential property located at 2704, 2706, 2724, and 2734 Draper Avenue, 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.

According to the historical research, the subject site and surrounding properties were used for agricultural purposes until the early 1960s when residential development of the area started.

The subject site has been occupied by four residential townhome buildings each with twelve units, since its development in the early 1960s. The buildings were initially heated by fuel oil. As previously discussed, the past use of furnace oil on the site is considered to have been addressed and therefore does not represent an environmental concern to the subject property.

Following the historical research, an inspection was conducted of the subject site and Phase I ESA study area. The buildings are residential townhome complexes with twelve units in each building. No environmental concerns were identified during the site visit.

Conclusion

Based on the results of this Phase I Environmental Site Assessment, **in our opinion a Phase II-Environmental Site Assessment will not be required for the property at this time.**

Recommendations

Building Materials

Based on the approximate age of the subject buildings, asbestos containing materials may be present within the structures. Potential ACMs observed were vinyl floor tiles, drywall joint compound, ceiling tiles, and hard plaster. These materials were noted to be in fair to good condition at the time of the site visit and do not represent an immediate concern. An asbestos survey of the building must be conducted in accordance with Ontario Regulation 278/05, under the

Occupational Health and Safety Act, prior to the disturbance of any potential ACMs.

Lead-based paints may be present within the subject building based on their approximate age (1960s). Lead testing should be conducted in the buildings prior to the disturbance of painted surfaces. Major work involving lead painted surfaces, including demolition of the subject buildings, must be done in accordance with Ontario Regulation 490/09, under the Occupational Health and Safety Act.

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 Greatwise Developments. Permission and notification from Greatwise Developments and Paterson will be required to release this report to any other party.

Paterson Group Inc.



Michael Beaudoin, P.Eng.



Mark S. D'Arcy, P.Eng.



Report Distribution:

- Greatwise Developments
- Paterson Group

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.

MNR 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.

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

The City of Ottawa eMap website.

City of Ottawa Historical Land Use Inventory (HLUI) Database Request

Local Information Sources

Personal Interviews

Previous Engineering Reports

Public Information Sources

Google Earth.

Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4018-1 – SITE PLAN

DRAWING PE4018-2 – SURROUNDING LAND USE PLAN

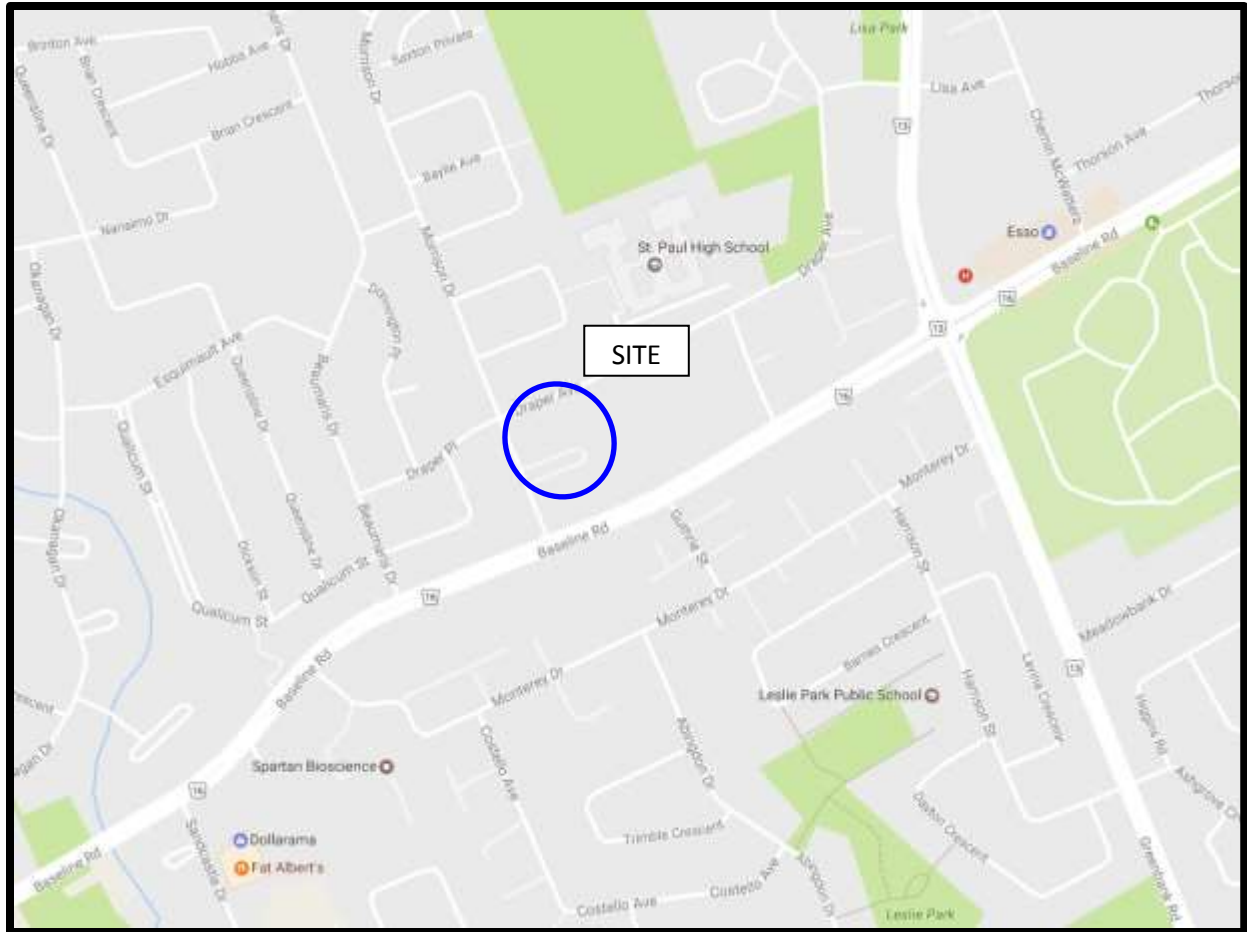


FIGURE 1
KEY PLAN

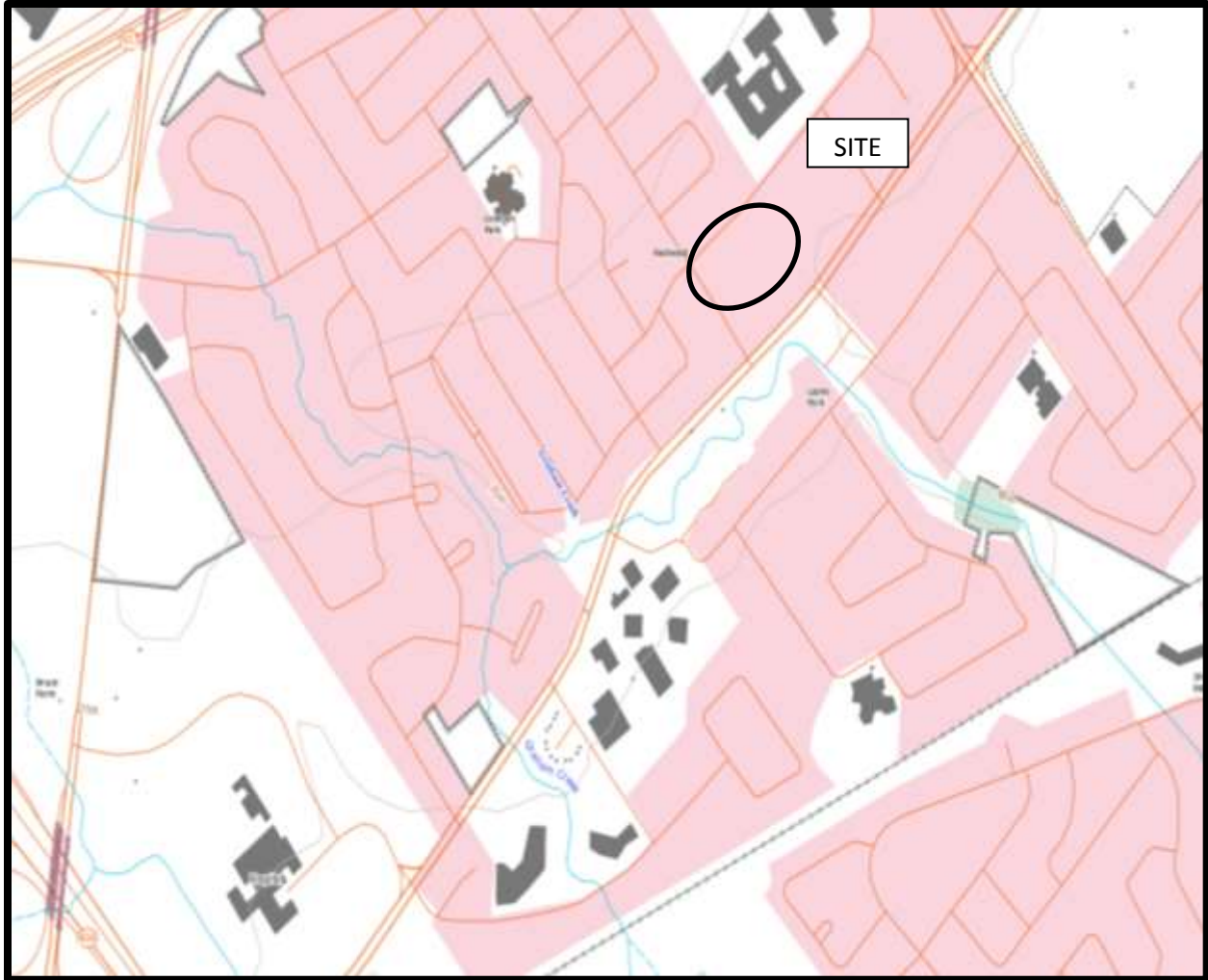
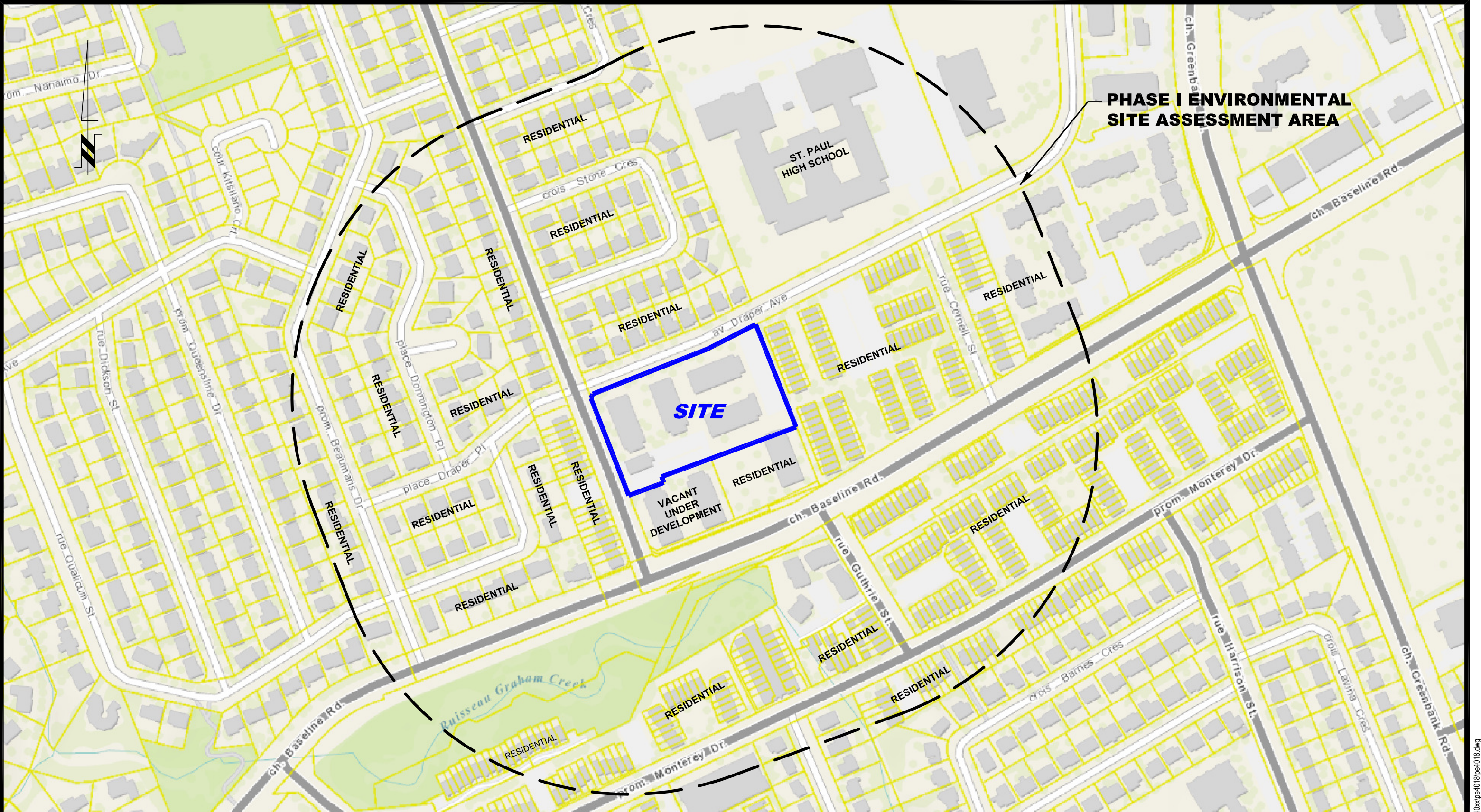


FIGURE 2
TOPOGRAPHIC MAP



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consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

0			
NO.	REVISIONS	DATE	INITIAL

GREATWISE DEVELOPMENTS	
PHASE I - ENVIRONMENTAL SITE ASSESSMENT	
2704, 2706, 2724 AND 2734 DRAPER AVENUE	
OTTAWA,	ONTARIO
Title:	SURROUNDING LAND USE PLAN

Scale:	1:3000	Date:	04/2017
Drawn by:	RCG	Report No.:	PE4018-1
Checked by:	MB	Dwg. No.:	PE4018-1
Approved by:	MSD	Revision No.:	0

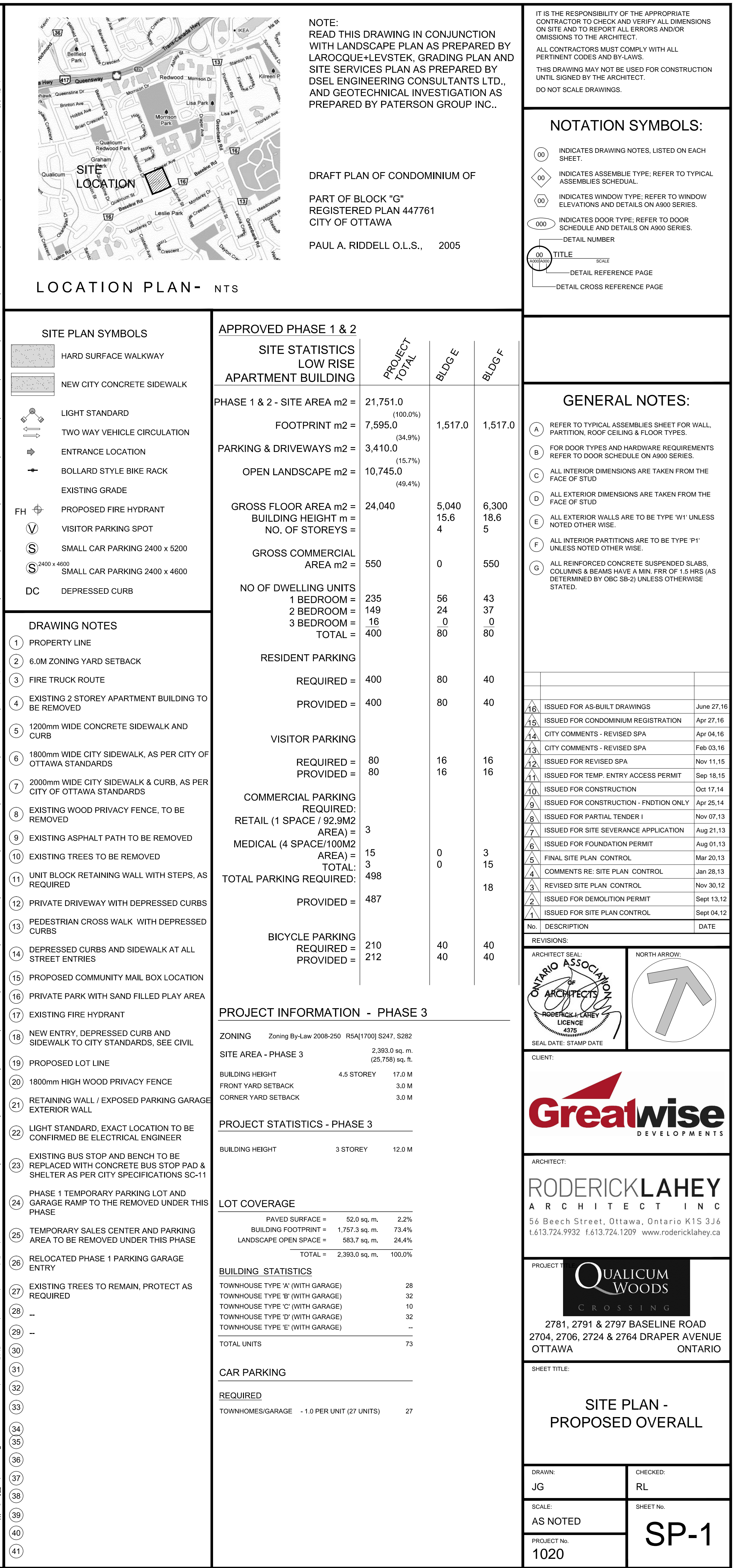
APPENDIX 1

SITE PLAN

CHAIN OF TITLE

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS





READ Abstracts Limited

331 Cooper Street, Suite 300, Ottawa, Ontario K2P 0A4

Email: search@readsearch.com

Tel.: 613-236-0664

Fax: 613-236-3677

ENVIRONMENTAL SEARCH

April 24, 2017

Patersongroup

Attn: Michael Beaudoin

BRIEF DESCRIPTION OF LAND:

2704, 2706, 2724, 2734 Draper Ave., Ottawa.

Part of Block G, Part of Morrison Court and Draper Court closed by CR483411, Plan 447761, being Parts 2 and 25 on 4R29460 and Parts 1, 6-11, and 14 on 4R27845.

PIN: 03947-0251

03947-0253

LAST REGISTERED OWNER: REDWOOD REESIDENCES LIMITED

CHAIN OF TITLE:

Deed RO2360 registered October 17, 1844

From William Bell to John Bell

Deed NP18574 registered June 8, 1900

From John A. Bell to George Bell and Peter Bell

Deed NP46621 registered April 17, 1939

From estate of George Bell and estate of Peter Bell to William S. H. Wilson

Deed NP46675 registered May 3, 1939

From William S. H. Wilson to Kate Arkell

Deed CR347220 registered June 5, 1956

From Kate Arkell to Thomas C. Assaly, in trust

Deed CR351317 registered September 21, 1956

From Thomas C. Assaly, in trust to Redwood Land Company Limited

Deed CR382549 registered December 31, 1958

From Redwood Land Company Limited to Campeau Construction Company Limited

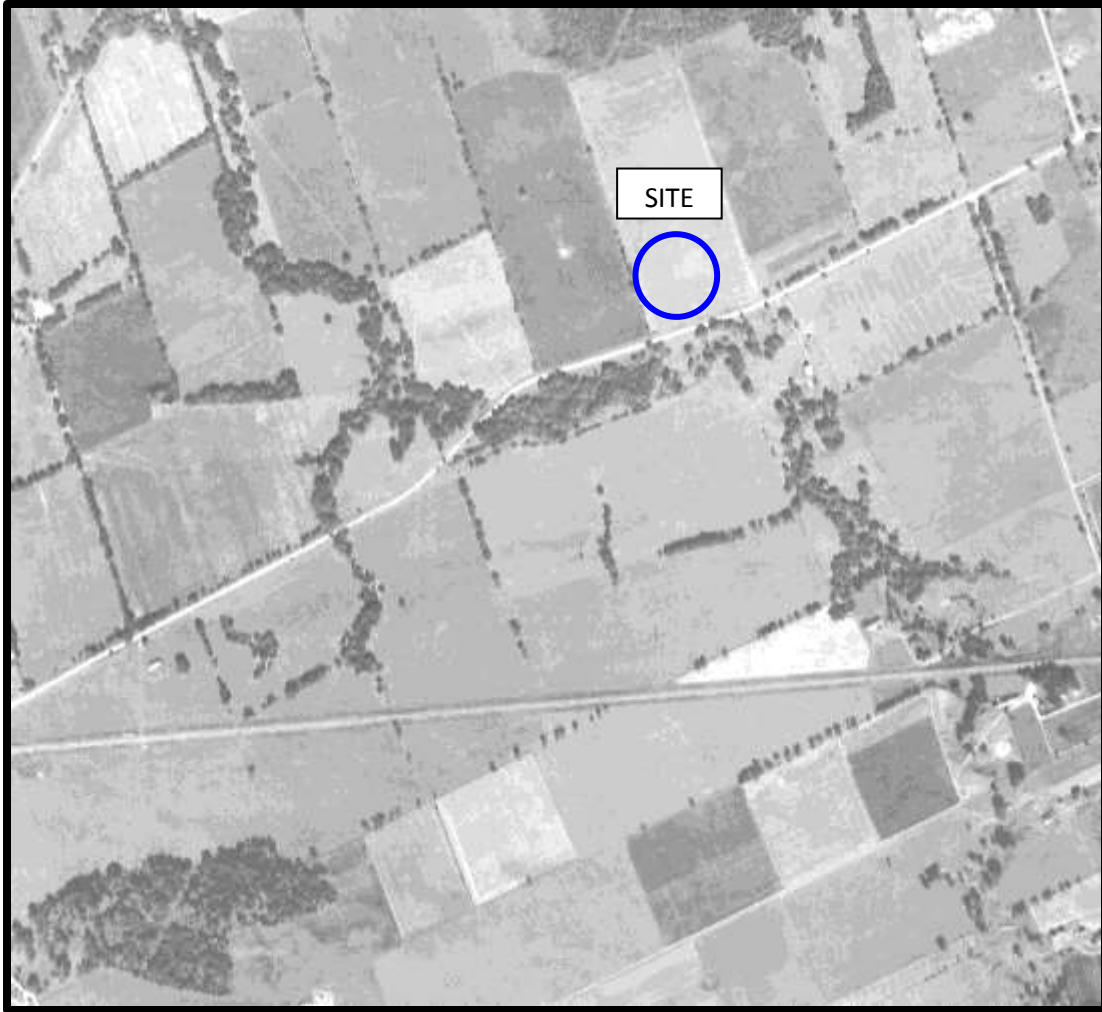
Plan 447761 registered August 14, 1962
By Campeau Construction Company Limited

Deed CR489688 registered February 12, 1965
From The Corporation of the City of Ottawa to Campeau Construction Company Limited
(Roads Closed by Bylaw CR483411 registered December 1, 1964)

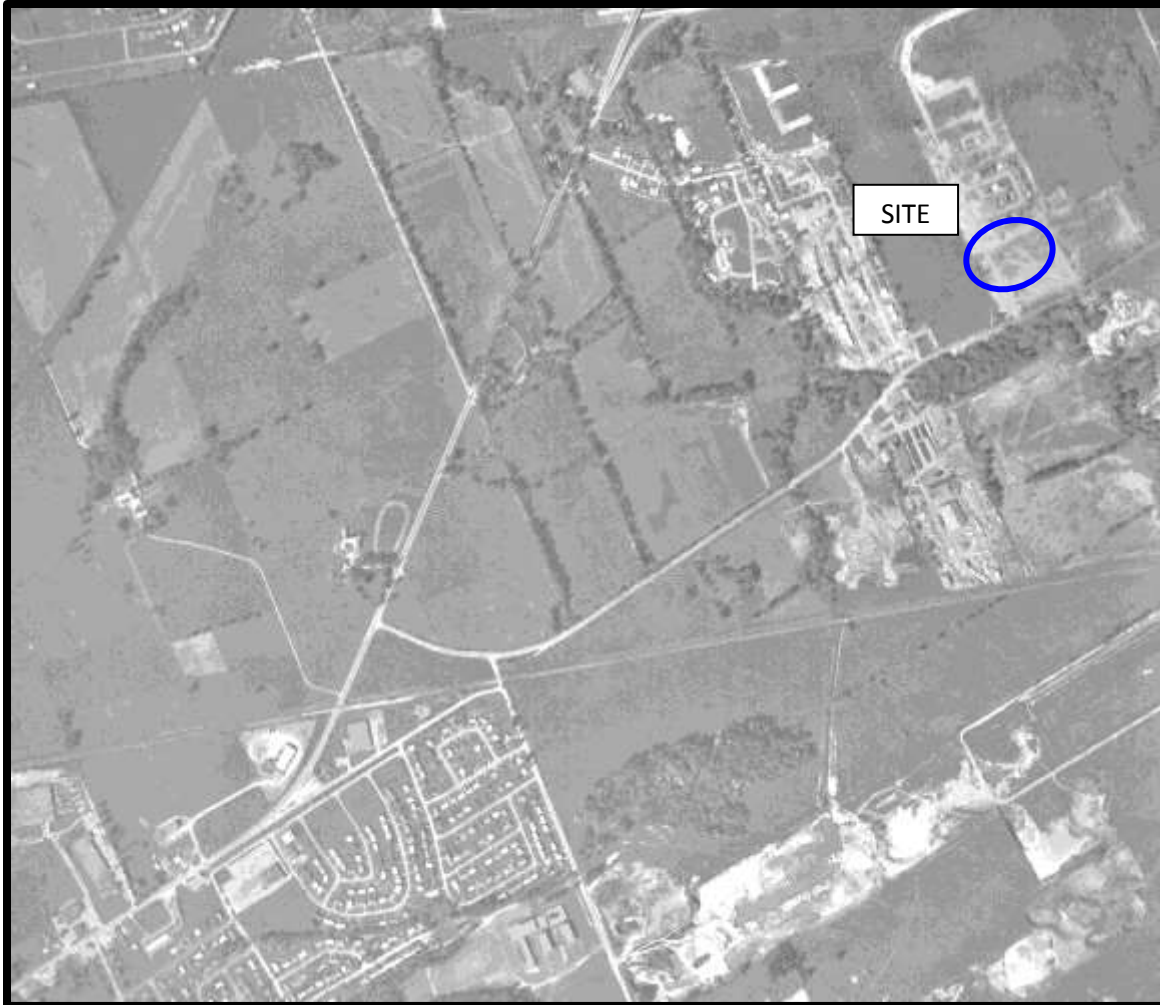
Deed NS206837 registered August 31, 1983
From Campeau Corporation to Redwood Residences Ltd.

Deed N361313 registered October 27, 1986
From The Corporation of the City of Ottawa to Redwood Residences Ltd.
(1 foot reserves on road)

Name Change OC264474 registered October 30, 2003
From Redwood Residences Ltd. To Redwood Residences Limited



AERIAL PHOTOGRAPH
1951



AERIAL PHOTOGRAPH
1963



AERIAL PHOTOGRAPH
1973



AERIAL PHOTOGRAPH
1983



AERIAL PHOTOGRAPH
1996

Site Photographs

PE4018

2704, 2706, 2724, and 2734 Draper Avenue, Ottawa, ON

April 24, 2017



Photograph 1: Landscaped area between the townhomes, looking north towards Draper Avenue.



Photograph 2: Looking east along Draper Avenue. St. Paul High School is visible on the north side of Draper Avenue.

Site Photographs

PE4018

2704, 2706, 2724, and 2734 Draper Avenue, Ottawa, ON

April 24, 2017



Photograph 3: Looking south, at the new development site. Residential properties can be further south, across Baseline Road.



Photograph 4: Looking north, along Morrison Avenue.

APPENDIX 2

MOECC FREEDOM OF INFORMATION

TSSA CORRESPONDENCE



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 Michael Beaudoin Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5 Email address: mbeaudoin@patersongroup.ca			FOI Request No.	Date Request Received
Telephone/Fax Nos. Tel. 613-226-7381 Fax 613-226-6344			Fee Paid <input type="checkbox"/> ACCT <input type="checkbox"/> CHQ <input type="checkbox"/> VISA/MC <input type="checkbox"/> CASH <input type="checkbox"/> CNR <input type="checkbox"/> ER <input type="checkbox"/> NOR <input type="checkbox"/> SWR <input type="checkbox"/> WCR <input type="checkbox"/> SAC <input type="checkbox"/> IEB <input type="checkbox"/> EAA <input type="checkbox"/> EMR <input type="checkbox"/> SWA	
Your Project/Reference No. PE4018	Signature/Print Name of Requester Michael Beaudoin			
Request Parameters				
Municipal Address / Lot, Concession, Geographic Township (Municipal address essential for cities, towns or regions) 2704, 2706, 2724, 2734 Draper Avenue, Ottawa (Adjacent lots, all one owner)				
Present Property Owner(s) and Date(s) of Ownership Greatwise Developments				
Previous Property Owner(s) and Date(s) of Ownership				
Present/Previous Tenant(s) (if applicable) Residential				
Search Parameters			Specify Year(s) Requested	
Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request 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.				
	SD	Specify Year(s) Requested		
air - emissions		1986-present		
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)		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		1986-present		
waste systems - PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste		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.

Michael Beaudoin

From: Michael Beaudoin
Sent: April-19-17 10:17 AM
To: 'publicinformationservices@tssa.org'
Subject: 2704 Draper Avenue

Good Morning

Could you please complete a search of your records for underground/aboveground storage tanks, historical spills or other infractions for the following address(es) for properties located in the City of Ottawa, ON

2701, 2702, 2704, 2706, 2724, 2734, 2735, 2765 Draper Avenue
1320 Morrison Drive
2795 Baseline Road

Michael Beaudoin, P.Eng

patersongroup
Solution Oriented Engineering

154 Colonnade Road South
Ottawa - Ontario - K2E 7J5
Tel: (613) 226-7381
Fax: (613) 226-6344

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

POSITION

Environmental Engineer

EDUCATION

Carleton University, B.Eng. 2010
Environmental Engineering

EXPERIENCE

2010-present

Paterson Group Inc.

Consulting Engineers

Geotechnical and Environmental Division

Environmental Engineer

SELECT LIST OF PROJECTS

Rideau Street Reconstruction - Ottawa

Main Street Reconstruction - Ottawa

Woodroffe Avenue Reconstruction – Ottawa

Westboro Connection Remediation - Ottawa

Former Alcan Plant Redevelopment - Kingston

Former Nordex Facility Redevelopment - Kingston

Jack Garland Airport Remediation – North Bay

Highway 17 Twinning Project – Arnprior

Watermain Construction – North Bay

Waste Audits – Various City of Ottawa Facilities

Parks Recycling Pilot Program – Various City of Ottawa parks

Special Events Recycling Pilot Program – Special Events with the City of Ottawa

Groundwater Remediation and Monitoring Program Supervision – Ottawa

Designated Substance Surveys – Residential and Commercial Sites – Ottawa

Asbestos Air Testing – Various Locations - Ottawa

Mould Testing – Various Locations - Ottawa

Phase I & II Environmental Site Assessments – Residential, Commercial and Industrial Sites –
Ottawa (CSA Z768-01 and O.Reg 269/11)

**Environmental
Engineering**

**Geotechnical
Engineering**

**Materials Testing
Quality Control**

Building Sciences

Hydrogeology

Archeological Services

Mark S. D'Arcy, P.Eng., QP_{ESA} Senior Environmental/Geotechnical Engineer

After receiving his Bachelors of Applied Science from Queen's University in 1991 in Geological Engineering, Mark joined Paterson Group Inc. During the first 10 years of Mark's career, he was heavily involved in all aspects of field work, including drilling boreholes, excavating test pits, conducting phase I site inspections, environmental sampling and analysis and inspection of environmental remediations. During Mark's field experience, he gained invaluable field and office experience, which would prepare Mark to become the Environmental Division Manager. Mark's field experience ranges from Phase I Environmental Site Assessments (ESAs) to on-site soil and groundwater remediations, as well as, environmental/geotechnical borehole investigations. Mark's field experience has provided extensive knowledge of subsurface conditions, contractor relations and project management. These skills would provide Mark with the ability to understand a variety of situations, which has lead Paterson to an extremely successful Environmental Department. Mark became the Environmental Manager in 2006, which consisted of two engineers and two field technicians. Mark has been an integral part in growing the Environmental Division, which now consists of nine engineers and three field technicians. Mark is the Senior Project Manager for a wide variety of environmental projects within the Eastern Ontario area including Phase I ESAs, Phase II ESAs, remediations for filing Records of Site Condition in the Ontario Ministry of the Environment and Climate Change (MOECC) Environmental Site Registry, Brownfield Applications and Landfill Monitoring Programs. As the Senior Project Manager, Mark is responsible for directing project personnel, final report review and overall project success. Mark has proven leadership and ability to manage small to large scale projects within the allotted time and budget.

EDUCATION

B.A.Sc. 1991, Geological Engineering, Queen's University, Kingston, ON

LICENCE/ PROFESSIONAL AFFILIATIONS

Professional Engineers of Ontario

ESA Qualified Person with MOECC

Ottawa Geotechnical Group

Consulting Engineers of Ontario

YEARS OF EXPERIENCE

With Paterson: 26

OFFICE LOCATION

154 Colonnade Road South,
Nepean, Ontario, K2E 7J5

SELECT LIST OF PROJECTS

- 222 Beechwood Avenue, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- 409 MacKay Street, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Art's Court Redevelopment, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Visitor Welcome Centre, Phase II and Phase III, Parliament Hill, Ottawa, Ontario (Senior Project Manager for Environmental Remediation)
- Mattawa Landfill, Mattawa, Ontario (Senior Project Manager, Annual Water Quality Monitoring report)
- Multi-Phase Redevelopment of the Ottawa Train Yards, Ottawa, Ontario (Senior Project Manager)
- Rideau Centre Expansion, Ottawa, Ontario(Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- 26 Stanley Avenue, Ottawa, Ontario, Phase I ESA, Phase II ESA (Senior Project Manager)
- Riverview Development – Kingston, Ontario, Phase I ESA, Phase II ESA, and filing of an RSC in the MOECC Environmental Site Registry (Senior Project Manager)
- Monitoring Landfills for River Valley, Kipling and Lavagine (Senior Project Manager)

PROFESSIONAL EXPERIENCE

May 2001 to present, **Manager of Environmental Division, Paterson Group Inc.,** Ottawa, Ontario

- Manage all aspects of the environmental division (management of personnel, budgeting, invoicing, scheduling, business development, reporting, marketing, and fieldwork).
- Review day to day operations within the environmental division.
- Design, perform, and lead Phase I, II and Phase III ESAs, Remediation's, Brownfield Applications and Record of Site conditions, fieldwork surveys, excavation, monitoring, laboratory analysis, and interpretation.
- Write, present, and publish reports with methodology and laboratory analysis results, along with recommendations for environmental findings.
- Responsible for ensuring projects meet Ministry of Environment and Climate Change Standards and Guidelines.
- Building and fostering relationships with clients, stakeholders, and Ministry officials.
- Supervise and continuous training of staff in environmental methods (environmental sampling techniques, technical expertise and guidance).
- Applied due diligence in ensuring the health and safety of staff and the public in field locations.

1991 to 2001, **Geotechnical and Environmental Engineer, Paterson Group Inc.,** Ottawa, Ontario

- Provide on-site geotechnical and environmental expertise to various clients.
- Oversee geotechnical and environmental investigations for drilling and test pitting on numerous proposed utility installations, residential and commercial developments.
- Problem solving to help advance or maintain project schedules.
- Complete environmental reports with recommendations to meet environmental standards set by MOE and CCME standards.
- Conduct site inspections, bearing medium evaluations, bearing surface inspections, concrete testing and field density testing.
- Liaising with contractors, consultants and government officials.
- Provide cost estimates for geotechnical and environmental field programs and construction costs.
- Review RFI's, submittals, monthly progress reports and other various construction related work.