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Ottawa, Ontario
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December 19, 2018
File: PE4018-LET.02

Greatwise Developments
333 Wilson Avenue, Suite 200
Toronto, Ontario
M3H 1T2

Geotechnical Engineering
Environmental Engineering
Hydrogeology
Geological Engineering
Materials Testing
Building Science
Archaeological Studies

Attention: **Mr. Zaf Kelekvan**

www.patersongroup.ca

Subject: **Phase I - Environmental Site Assessment Update
2704, 2706, 2724 and 2734 Draper Avenue
Ottawa, Ontario**

Dear Sir,

Further to your request, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (ESA) Update for the property addressed 2704, 2706, 2724, and 2734 Draper Avenue, in the City of Ottawa, Ontario. This report updates a Phase I ESA prepared by Paterson, dated April 28, 2017, and is intended to meet the requirements for a Phase I ESA as per the MECP standard O.Reg. 153/04 as amended by O.Reg. 269/11. This report is to be read in conjunction with the previous Phase I ESA report.

Site Information

The Phase I Property is situated approximately 60 m north of Baseline Road, at the southeast corner of the intersection of Draper Avenue and Morrison Drive, in the City of Ottawa, Ontario. It is currently occupied by a construction site trailer, sales centre, and what appears to be a storage shed. The property was previously occupied by four (4) residential apartment buildings in addition to the sales centre. The site topography slopes slightly down to the north, and is at the grade of adjacent roadways, while the regional topography in the general area of the Phase I Property also slopes down to the north. Site drainage consists of infiltration or sheet flow to catch basins on surrounding roadways. The configuration of the subject site is shown on Drawing PE4018-1R - Site Plan, which is appended to this report.

Records Review

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 the potential to impact the subject site, based on their separation distance.

First Developed Use Determination

For the purposes of this report and based on aerial photographs and fire insurance plans reviewed, in combination with the Chain of Title, the Phase I Property was first developed as early as 1960 for residential purposes. The Phase I Property was used for residential purposes until the buildings were demolished in 2018.

Previous Reports

Based on the findings of the Phase I-ESA report, the buildings on the property were originally heated with fuel oil; however, based on previous investigations completed for the Phase I Property, the former use of fuel oil on the site is not considered to be an environmental concern. No historical or existing potentially contaminating activities (PCAs) were identified on or within the immediate vicinity of the Phase I Property. As a result, no areas of potential environmental concern (APECs) were identified on the Phase I Property.

Environment and Climate Change Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on December 19, 2018. The Phase I Property was not listed in the NPRI database. No properties within the 250 m Phase I Study Area were listed in the NPRI database.

Ontario Ministry of the Environment, Conservation and Parks (MECP) Instruments

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

MECP Incident Reports

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

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 (MNR) on December 19, 2018. The search did not reveal any natural features or areas of natural significance on the Phase I Property or within the Phase I Study Area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on December 19, 2018 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. The response from the TSSA did not identify any fuel storage tanks on the Phase I Property or on neighbouring properties.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa", was reviewed. No former waste disposal sites are located within the Phase I Study Area.

City of Ottawa Historical Land Use Inventory (HLUI)

A search of the City of Ottawa's Historical Land Use Inventory (HLUI) database was requested as part of the original Phase I ESA. At the time of issuing this report, a response from the City had not been received. The response will be forwarded to the client.

Aerial Photographs

The latest aerial photograph reviewed as part of the 2017 Phase I ESA, was dated 2016. Based on a review of aerial photographs from 2017, the Phase I Property and neighbouring properties within the Phase I Study Area remained unchanged since the 2016 photograph.

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 elevation of the subject site is approximately 75 m ASL, and that the regional topography in the general area of the site slopes downward to the north. According to the maps, the nearest water body is Graham Creek, located approximately 100 m south of the Phase I Property. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

The Ontario Geological Survey publication ‘The Physiography of Southern Ontario, Third Edition’ was reviewed as a part of this assessment. According to the publication and attached mapping, the site is situated within the Ottawa Valley Clay Plains physiographic region, described as “clay plains interrupted by ridges of rock or sand”. Mapping shows the subject site as situated on an area of clay plains.

Water Well Records

A search of the MECP web site for all drilled well records within 250 m of the subject site was conducted on December 19, 2018. Based on the findings of the search, there are no records of potable wells or monitoring wells for the RSC Property. No records for monitoring wells were identified in the Phase I study area.

Site Reconnaissance

Personnel from the Environmental Department of Paterson Group carried out a site reconnaissance visit on December 19, 2018. Weather conditions were overcast, with a temperature of approximately -5°C. At this time, the uses of the neighbouring properties within the Phase I Study Area were also assessed, from publicly accessible areas.

At the time of the site visit, the apartment buildings on the Phase I Property had been demolished. The former building footprints were marked with excavated pits, and the ground surface consisted of topsoil, granular fill material, and some weed growth. A construction site trailer was present at the southern side of the property, and the sales office building was still present in the southwest corner.

Site drainage currently consists of infiltration and/or runoff to surrounding city streets. No ponded water or discoloured vegetation was observed on the property. The site was

partially snow covered at the time of the site visit. No chemical storage or staining was noted on the exterior of the Phase I Property at the time of the site visit.

No private sewage systems, potable or monitoring wells, or evidence of former railway or spur lines were observed on the Phase I Property at the time of the site visit. There were no unidentified substances observed on the Phase I Property.

The surrounding properties were observed from publicly accessible areas, at the time of the site visit. Current land use within the Phase I Study Area is shown on Drawing PE4018-2R - Surrounding Land Use Plan.

Review and Evaluation of Information

Land Use History

The Phase I Property is considered to have been developed as early as 1960, for residential purposes. The subject land use remained residential until a sales office was constructed on the property in addition to the residential structures; the residential buildings were demolished in 2018.

Potentially Contaminating Activities (PCAs)

No potentially contaminating activities were identified on the Phase I Property. No historical PCAs were identified within the Phase I ESA Study Area.

Areas of Potential Environmental Concern (APECs)

Based on the findings of the Phase I ESA Update, no APECs were identified on the Phase I Property.

Contaminants of Potential Concern (CPCs)

No CPCs were identified on the Phase I Property.

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 estimated to be on the order of 10-15 m. Overburden soils are reported as offshore marine sediments. According to the mapping, bedrock consists of dolomite of the Oxford Formation, with some Rockcliffe Formation shale on the northern edge.

Based on topographical mapping and various projects conducted by Paterson in the area, the groundwater flow direction is inferred to be in a northerly direction, toward the Ottawa River.

Existing Buildings and Structures

A construction site trailer and residential sales office were located on the Phase I Property at the time of the site visit. A small storage shed was also present near the office structure. There are no other buildings or structures present on the Phase I Property.

Subsurface Structures and Utilities

No subsurface structures were observed on the Phase I Property at the time of the site visit.

The Phase I Property is situated in a municipally serviced area, and the previous residential apartment buildings on the site were serviced with hydro, gas, water, sewer and telecommunications.

Water Bodies

Graham Creek is located approximately 100 m to the south of the Phase I Property. No other creeks, rivers, streams, lakes or any other water body was identified on the Phase I Property or within the 250 m study area.

Areas of Natural Significance

A search for areas of natural significance and features (ANSI) was conducted on the Ontario Ministry of Natural Resources (MNR) website. No ANSIs were identified on the RSC Property or within the 250 m study area.

Well Records (Drinking Wells and Monitoring Wells)

A search of the MECP web site for all drilled well records within 250 m of the subject site was conducted on December 19, 2018. Based on the findings of the search, there are no records of potable wells or monitoring wells for the RSC Property. There are no records for monitoring wells in the Phase I Study area.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area was historically used for a combination of residential and institutional purposes. Neighbouring land use is shown on Drawing PE4018-2R – Surrounding Land Use Plan.

Current land use within the Phase I Study Area is a combination of residential and institutional. No existing PCAs were identified within the 250 m study area at the time site visit.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

Based on the findings of the Phase I ESA and Phase I ESA Update there are no historical or existing PCAs that represent APECs on the Phase I Property. Therefore, no contaminants of potential concern are present on the Phase I Property.

Assessment of Uncertainty and/or Absence of Information

There were no material deviations to the Phase I ESA requirements set out in O.Reg. 153/04 that would cause uncertainty or absence of information that would affect the validity of the findings of the Phase I ESA or this Phase I CSM. It is the opinion of the qualified person (QP_{ESA}) that based on the information obtained and reviewed as part of this Phase I ESA, that no APECs were identified in association with the Phase I Property.

Conclusions

As a result of the additional historical research and follow-up site visit undertaken as part of this assessment, in order to meet the requirements of O.Reg. 153/04 as amended, it is our opinion that a Phase II ESA is not required for the Phase I Property.

Statement of Limitations

This Phase I - Environmental Site Assessment Update report has been prepared in general accordance with the agreed scope-of-work and O.Reg. 153/04. The conclusions presented herein are based on information gathered from a historical review and field inspection program. The findings of the Phase I ESA Update 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.

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 this firm will be required to release this report to any other party.

We trust that this submission satisfies your current requirements. Should you have any questions please contact the undersigned.

Paterson Group Inc.



Anna Graham, M.E.S.



Mark S. D'Arcy, P.Eng., QP_{ESA}



Report Distribution:

- Greatwise Developments (1 copy)
- Paterson Group (1 copy)

Attachments:

- Figure 1 - Key Plan
- Figure 2 - Topographic Map
- Drawing PE4018-1R - Site Plan
- Drawing PE4018-2R - Surrounding Land Use Plan
- Chain of Title
- TSSA Correspondence
- Qualifications of Assessors

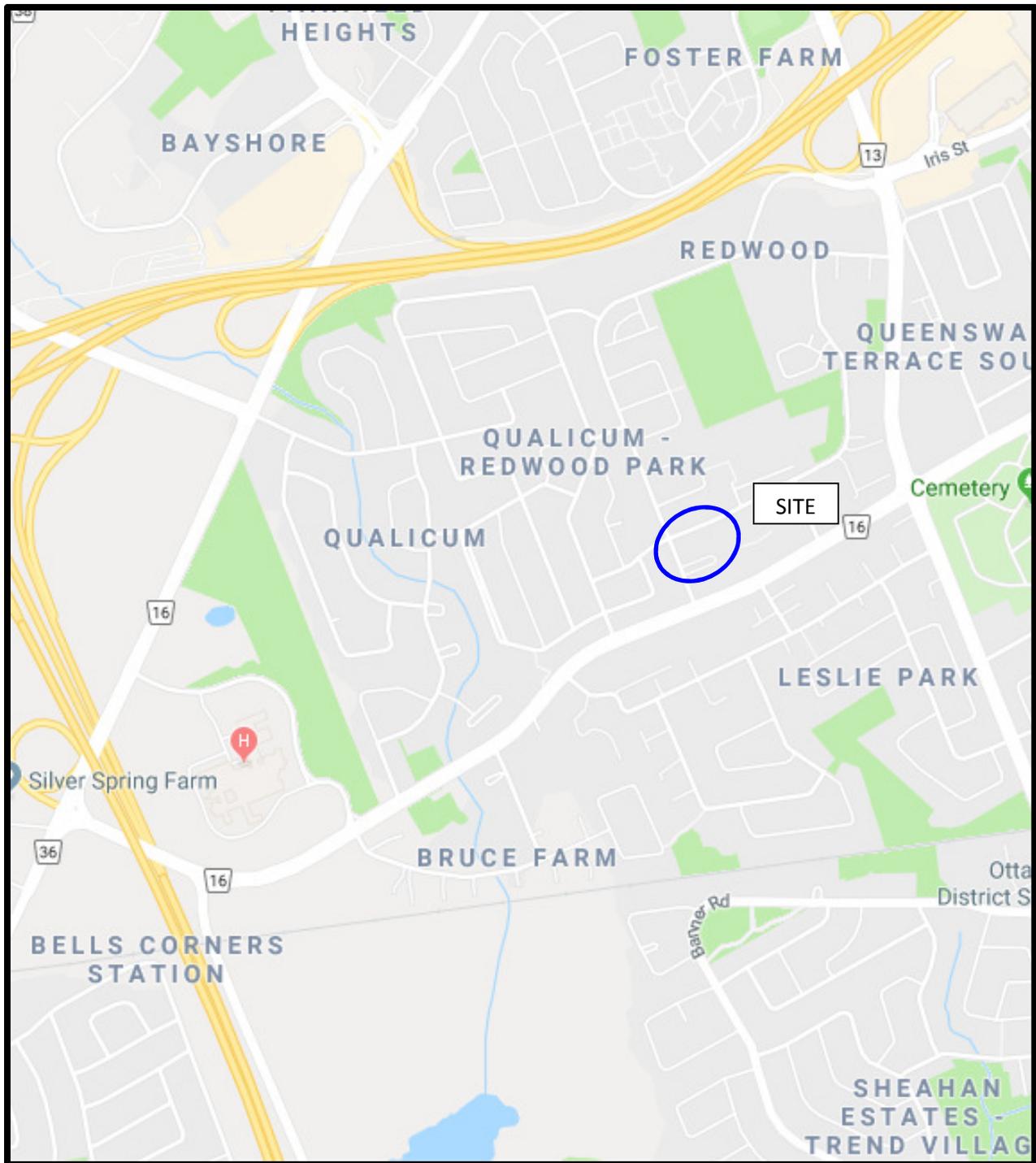


FIGURE 1
KEY PLAN

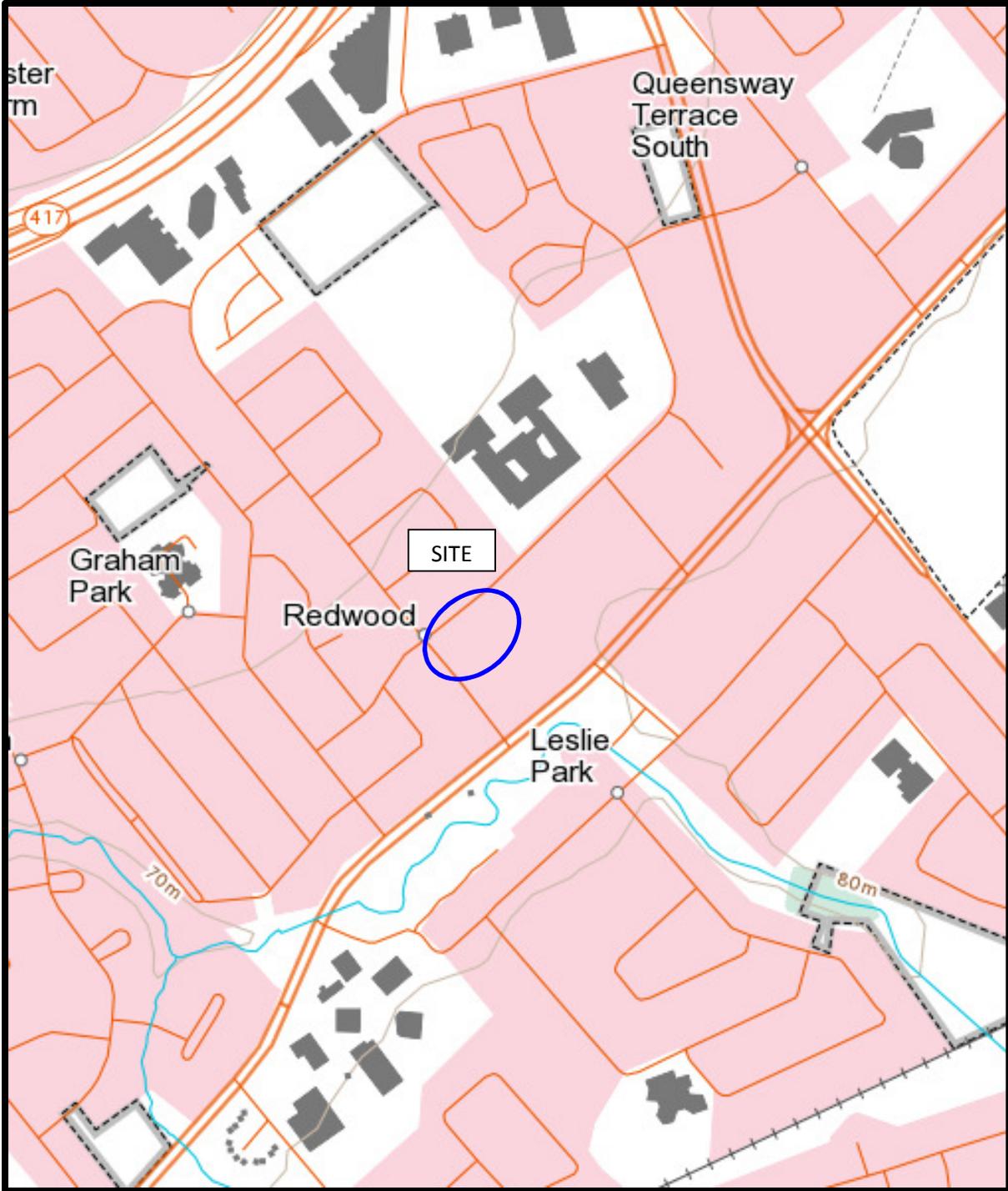
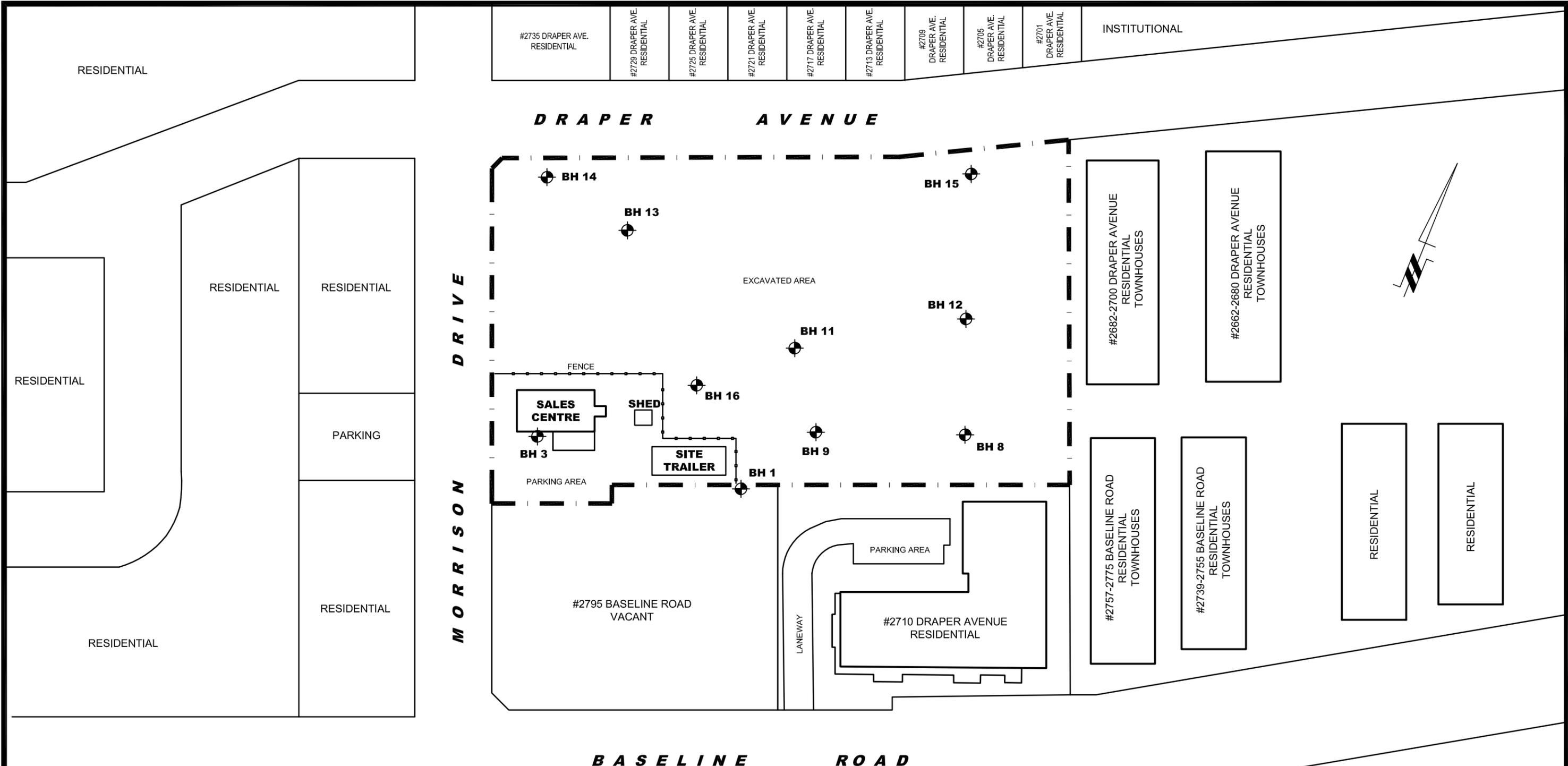


FIGURE 2
TOPOGRAPHIC MAP



LEGEND:
 BOREHOLE LOCATION, GEOTECHNICAL INVESTIGATION, PATERSON GROUP REPORT PG1630-1

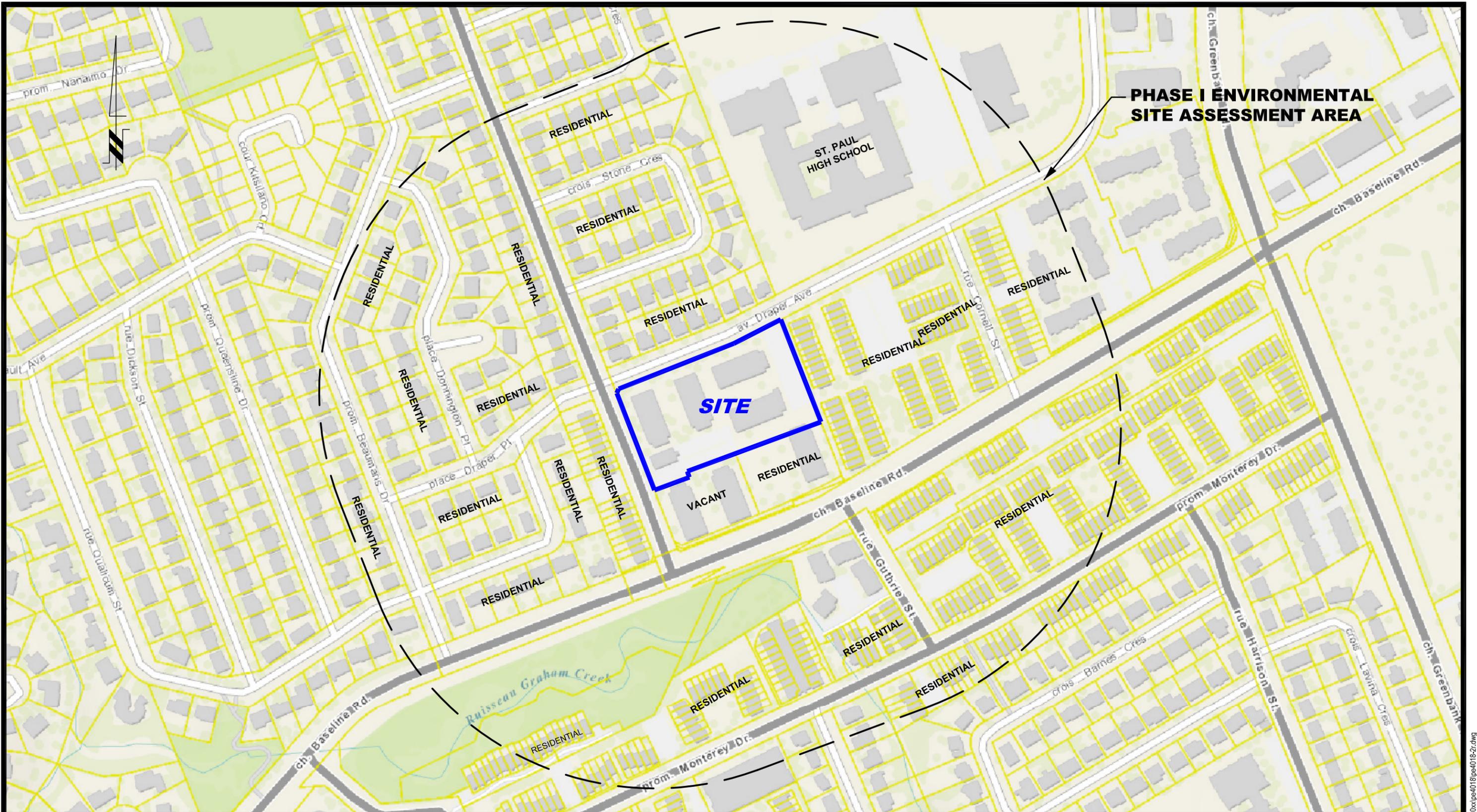
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 consulting engineers
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NO.	REVISIONS	DATE	INITIAL
0			

GREATWISE DEVELOPMENTS
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 2704, 2706, 2724 AND 2734 DRAPER AVENUE
 OTTAWA, ONTARIO
SITE PLAN

Scale:	1:1000	Date:	12/2018
Drawn by:	RCG	Report No.:	PE4018-LET.02
Checked by:	MB	Dwg. No.:	PE4018-1R
Approved by:	MSD	Revision No.:	0

p:\autocad drawings\environmental\pe4018\pe4018.dwg



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consulting engineers

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Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL
0			

OTTAWA,
Title:

GREATWISE DEVELOPMENTS
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
2704, 2706, 2724 AND 2734 DRAPER AVENUE

SURROUNDING LAND USE PLAN

ONTARIO

Scale: 1:3000
Drawn by: RCG
Checked by: MB
Approved by: MSD

Date: 12/2018
Report No.: PE4018-LET.02
Dwg. No.: **PE4018-2R**
Revision No.: 0



READ Abstracts Limited

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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

Anna Graham

From: Public Information Services <publicinformationsservices@tssa.org>
Sent: December-19-18 2:27 PM
To: Anna Graham
Subject: RE: Records search request for Draper Avenue

No Records Found

Hello,

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database at the subject address(es).

For copies of documents, please complete the Release of Public Information form, found at <https://www.tssa.org/en/about-tssa/resources/Release-of-Records-form--Jan-2018Final.pdf> and email the completed form to publicinformationsservices@tssa.org or through mail along with the appropriate fee. TSSA's fee schedule can be found at: https://www.tssa.org/en/about-tssa/resources/Documents/Public-Information-Fee-Schedule_Jan_2018.pdf. Fees are payable with a credit card (Visa or MasterCard) or by a cheque made payable to TSSA.

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind regards,



Connie Hill | Public Information Agent

Facilities
345 Carlingview Drive
Toronto, Ontario M9W 6N9
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www.tssa.org



From: Anna Graham <AGraham@Patersongroup.ca>
Sent: December 19, 2018 1:41 PM
To: Public Information Services <publicinformationsservices@tssa.org>
Subject: Records search request for Draper Avenue

Good afternoon,

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

2675 Draper Avenue
2700 Draper Avenue
2704 Draper Avenue
2706 Draper Avenue
2724 Draper Avenue
2734 Draper Avenue

2735 Draper Avenue
2785 Baseline Road
2795 Baseline Road
1302 Morrison Drive

Thank you,

Anna Graham, B.Sc., M.E.S.

patersongroup
solution oriented engineering

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
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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

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