



Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Archaeological
Studies

Phase I Environmental Site Assessment

Vacant Property
The Meadows – Borrisokane Road
Ottawa, Ontario

Prepared For

Tamarack (Nepean) Corporation

Paterson Group Inc.

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

Tel: (613) 226-7381
Fax: (613) 226-6344
www.patersongroup.ca

March 8, 2018

Report: PE0190-3

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....ii

1.0 INTRODUCTION..... 1

2.0 PHASE I PROPERTY INFORMATION..... 2

3.0 SCOPE OF INVESTIGATION 3

4.0 RECORDS REVIEW 4

 4.1 General..... 4

 4.2 Environmental Source Information 5

 4.3 Physical Setting Sources 8

5.0 SITE RECONNAISSANCE..... 10

 5.1 General Requirements..... 10

 5.2 Specific Observations at Phase I Property 10

6.0 REVIEW AND EVALUATION OF INFORMATION 12

 6.1 Land Use History 12

 6.2 Conceptual Site Model..... 12

7.0 CONCLUSION 14

8.0 STATEMENT OF LIMITATIONS 15

9.0 REFERENCES..... 16

List of Figures

- Figure 1 - Key Plan
- Figure 2 - Topographic Map
- Drawing PE0190-3 - Site Plan
- Drawing PE0190-4 - Surrounding Land Use Plan

List of Appendices

- Appendix 1 Plan of Survey
 - Draft Plan of Subdivision
 - Aerial Photographs
 - Site Photographs

- Appendix 2 MOECC Freedom of Information Search Request
 - MOECC Water Well Records
 - TSSA Request

- Appendix 3 Qualifications of Assessors

EXECUTIVE SUMMARY

Assessment

A Phase I – Environmental Site Assessment was carried out for a property on Borrisokane Road in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the subject site and adjacent properties and identify any environmental concerns with the potential to impact the subject property.

Based on a review of historical records, part of the subject property appears to have been used as a sand pit in the 1970s. Other parts of the property were vacant or agricultural fields. No historical potentially contaminating activities (PCAs) were identified on the Phase I property. Surrounding properties have historically been used for agricultural and mineral aggregate extraction purposes. In a review of the historical records, no Potentially Contaminating Activities were identified.

Numerous test holes have been excavated on the property by Paterson Group for geotechnical investigations. During these investigations, no indications of contamination or deleterious fill were observed.

Following the historical review, a site visit was conducted. The subject property currently exists as vacant, tree covered land. No environmental concerns were identified on the subject site at the time of the site visit, although some waste items (including furniture) have been discarded along the trail/gravel road leading onto the western part of the site, and around the former aggregate pit.

The surrounding land use consisted of aggregate extraction (sand and gravel) land, residential, and vacant properties. No PCAs were identified in the Phase I study area.

Based on the results of this Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the property.**

Recommendations

It is recommended that all discarded/waste items be properly disposed of during the future development of the land.

1.0 INTRODUCTION

At the request of Tamarack (Nepean) Corporation, Paterson Group (Paterson) conducted a Phase I - Environmental Site Assessment (Phase I ESA) of a property on Borrisokane Road, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Ms. Michelle Taggart of Tamarack. Ms. Taggart can be reached by telephone at (613) 739-2919.

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:	Part of 3640 Greenbank Road, Ottawa, Ontario.
Legal Description:	Part of Lot 9 and Lot 10, Concession 3, Rideau Front, Geographic Township of Nepean, in the City of Ottawa, Ontario.
Property Identification Number (PIN):	04592-2486; 04592-2488
Location:	The subject site is located on the east side of Borrisokane Road, south of Cambrian Road.
Latitude and Longitude:	45° 14' 39" N, 75° 44' 49" W
Site Description:	
Configuration:	Rectangular
Site Area:	13.5 ha (approximate)
Zoning:	DR – development reserve (east side of the property); MR – mineral aggregate reserve zone (west side of the site)
Current Use:	The subject site is vacant and tree covered; some areas have been cleared of vegetation as part of the geotechnical investigation.
Services:	The subject site is situated in a privately serviced area, with the exception of the new residential development to the east. No utilities are anticipated to be present on the property.

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 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

Based on a review of historically available information, the Phase I property appears to have always been vacant, and briefly used for aggregate extraction. The property has never been developed.

National Archives

Fire insurance plans and city directories are not available for the Phase I study area.

Plan of Survey

A plan of survey prepared by Stantec Geomatics Ltd. and dated 2007 and a draft Plan of Subdivision dated 2018, were reviewed as a part of this assessment. The survey plan depicts the subject site in its current configuration.

Previous Engineering Reports

Paterson has conducted several environmental and geotechnical projects on the subject property and in the area of the subject site. Geotechnical investigations conducted by Paterson in 2004, 2009 and 2018 included the placement of test pits and boreholes on the subject property; no indications of contamination were noted in the geotechnical reports. Overburden encountered at the boreholes and test pits consisted primarily of glacial till, sand, silty sand, silty clay, and trace gravel. No fill was identified during the geotechnical investigations. The following environmental and monitoring reports were also reviewed:

- ❑ “Phase I Environmental Site Assessment, Meadows Subdivision (Curkovic Lands) South of Jock River, Ottawa, Ontario” prepared by Paterson Group and dated December 16, 2009.

The landfill property to the southwest of the subject site was identified as a potential concern in our previous Phase I ESA. It should be noted that this Phase I property extended further west, right up to Borrisokane Road (the current Phase I lands commence to the east of Borrisokane Road). Analytical results of groundwater from a monitoring well on the subject site did not identify any leachate impacts, and interviews with City of Ottawa staff indicated that leachate from the landfill site is not traveling in the direction of the subject site.

- ❑ “Trail Road Landfill Site, Report for the 2015 Monitoring and Operating Program”, prepared by Dillon Consulting and dated May 2016;
- ❑ “Trail Road Landfill Site, Report for the 2016 Monitoring and Operating Program”, prepared by Dillon Consulting and dated May 2017.

The Trail Road Landfill property is located approximately 500 m to the southwest of the subject property. Recent monitoring reports from 2015 and 2016 for landfill leachate were reviewed as part of the current Phase I ESA. Groundwater monitoring wells present along the northern landfill property boundary were tested in 2016 and indicated no leachate impacts. Weak to moderate leachate effects were observed in the shallow sand aquifer in 2015 within the forested area north of the eastern portion of the landfill site and more than 250 m west of the subject land. Furthermore, the presence of a stormwater management pond and drainage ditch directs surface flow (and shallow aquifer seepage) to the north, along Borrisokane Road, and not in the direction of the subject property. Based on the information contained in the Trail Landfill site monitoring reports, the landfill is not considered to pose a concern to the subject property.

No environmental concerns with respect to the subject site were identified during the review of previous reports completed for the subject land and adjacent properties.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on February 13, 2018. The subject site and Phase I study area were not listed in the NPRI database.

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 from the MOECC had not been received.

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 coal gasification plants were identified 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 from the MOECC had not been received.

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 from the MOECC had not been received.

MOECC Submission

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions for the property. At the time of issuing this report, a response from the MOECC had not been received.

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 Phase I study area. No Records of Site Condition (RSCs) were filed for the subject site or properties within the Phase I study area.

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. No records were listed for the subject site or for properties within the Phase I study area.

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 February 16, 2018. No areas of natural significance were identified on the subject site or within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on February 8, 2018 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 from the TSSA had not been received. Should the response contain pertinent information, Tamarack (Nepean) Corporation will be notified.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. No landfill sites were identified within the Phase I study area. However, it should be noted that there is an active landfill site approximately 300 m to the southwest of the subject site.

Based on our review of the City of Ottawa monitoring reports for this landfill, it is not considered to pose an environmental concern.

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 to the first available air photos for the site. Based on the review, the following observations have been made:

- 1959 The subject property is vacant, and partially tree covered. A road runs through the south part of the site, extending from Greenbank Road to Borrisokane Road (then Cedarview Road). A small part of the site surface near the southern boundary appears to be disturbed and may be an aggregate pit. Surrounding properties are treed to the north and west, and agricultural fields to the east and south. An aggregate pit appears to be present to the southwest.

- 1966 A larger area of the property surface has been disturbed and is used as an aggregate quarry. The quarry extends to the south of the subject site as well. No further significant changes have been made to the surrounding land.

- 1987 The southern part of the quarry on the subject property appears to have been abandoned. The adjacent property to the south has been further developed as an aggregate pit.

- 1993 The subject site does not appear to be in use. Some of the previously clear land is tree covered, with some agricultural fields on the eastern side of the site. Highway 416 has been constructed to the west of Cedarview Road / Borrisokane Road. No other significant changes have been made to the surrounding properties.

- 2001 Part of the subject site previously developed as an aggregate site appears to contain water. Some of the formerly agricultural fields in the eastern part of the site are unused and partly tree covered. The property to the south continues to be occupied by a quarry.

- 2017 (City of Ottawa website) The majority of the site is tree covered. Residential developments are present further to the northeast, on roadways including River Mist Road and Cambrian Road.

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

Topographic Maps

Topographic information was obtained from Natural Resources Canada – The Atlas of Canada website. The topographic maps indicate that the elevation of the subject site is approximately 96 m above sea level. The regional topography in the general area of the site slopes downward to the north, towards the Jock River. 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, as a part of this assessment. According to the publication and mapping, the site is situated within the St. Lawrence Lowlands, Till Plains (Drumlinized) physiographic region. 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 in the Central St. Lawrence Lowland, “where the land is rarely more than 150 m above sea level, except for the Monteregion Hills, which consist of intrusive igneous rocks.

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 consists of organic deposits in the historically treed areas, while the central part of the site consists of glaciofluvial deposits with some nearshore marine sediment, and the eastern part of the site consists of offshore marine sediment. Surficial drift thickness is 15 to 25 m (west side) and 10 to 15 m on the east side.

Water Well Records

A search of the MOECCs web site for all drilled well records within 250 m of the subject site was conducted on February 13, 2018. Based on the search results, no wells are present on the subject site, and one (1) record with no information was identified in the Phase I study area. No active water supply wells are anticipated to be present in the Phase I study area.

Water Bodies and Areas of Natural Significance

The Jock River is the closest water body, at approximately 1.12 km to the north of the subject site. No creeks, streams, lakes or other water bodies were identified in the Phase I study area. No areas of natural significance were identified within the Phase I study area.

5.0 SITE RECONNAISSANCE

5.1 General Requirements

The site assessment was conducted on February 16, 2018. Weather conditions were overcast, with a temperature of approximately -5°C. Personnel from the Environmental Department of Paterson Group conducted the site visit. 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.

5.2 Specific Observations at Phase I Property

Buildings and Structures

The subject site is a vacant lot of land. No buildings or permanent structures exist on the subject property. A depiction of the subject site is shown on Drawing PE0190-3 – Site Plan, in the Figures section of this report.

Site Features

The subject site is not developed with any buildings and exists as vacant, tree covered land with some unmaintained, unpaved access laneways. The site was snow covered at the time of the site visit.

Underground Utilities

The subject site has no underground utilities.

Waste Materials

The lands on either side of the access roadways on the site were observed to be occupied by occasional waste items/debris, including: building materials, furniture, and plastic and metal barrels.

Storage Tanks

No storage tanks were present on the subject site at the time of the site visit.

Drains, Pits and Sumps

No drains, pits or sumps were present on the site at the time of the site visit.

Unidentified Substances

No unidentified substances were observed on the site at the time of the site visit.

Hazardous Building Materials

No hazardous building materials were present on the subject site at the time of the site visit.

Phase I Study Area

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 - Vacant, treed land, followed by Cambrian Road;
- South - Drummond's Costello aggregate pit;
- East - Vacant land in early stage of development, followed by residential dwellings;
- West - Vacant land, followed by Borrisokane Road and Highway 416.

No Potentially Contaminating Activities were identified on the neighbouring properties in the Phase I study area. The waste disposal portion of the Trail Road landfill is located outside of the Phase I study area. Property use within the Phase I study area is presented on Drawing PE0190-4 – Surrounding Land Use Plan.

6.0 REVIEW AND EVALUATION OF INFORMATION

6.1 Land Use History

The subject site appears to have never been developed and currently exists as treed, vacant land.

Potentially Contaminating Activities (PCAs)

Potentially Contaminating Activities (PCAs) were not identified on the subject site or in the Phase I study area.

Areas of Potential Environmental Concern (APECs)

No Areas of Potential Environmental Concern (APECs) were identified on the subject site.

Contaminants of Potential Concern (CPCs)

No contaminants of concern (CPCs) were identified on the Phase I property.

6.2 Conceptual Site Model

Existing Buildings and Structures

The subject site is a vacant lot of land. No buildings or permanent structures exist on the subject property.

Geological and Hydrogeological Setting

The subject site is located in an area of dolomite bedrock with offshore and nearshore marine sediment, and areas of organic deposits, with overburden of 10 to 25 m in depth. Groundwater flow is expected to flow to the north, towards the Jock River.

Water Bodies

The closest major water body is the Jock River, located approximately 1.12 km to the north of the site. There are no water bodies on the subject site.

Areas of Natural Significance

No areas of natural significance were identified within the Phase I study area.

Water Wells

A search of the MOECC's web site for all drilled well records within 250 m of the subject site was conducted on February 13, 2018. Based on the search results, no wells are located on the subject site. One well record was identified in the Phase I study area. Approximately 500 m to the east, new developments have received full municipal services.

Neighbouring Land Use

Neighbouring land use in the Phase I study area is currently vacant, residential or aggregate extraction. Neighbouring land use does not pose an environmental concern to the subject site.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no PCAs were identified on the subject site or in the Phase I study area.

Contaminants of Potential Concern

No CPCs were identified 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 APECs on the subject site. The absence of PCAs 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.

7.0 CONCLUSION

A Phase I – Environmental Site Assessment was carried out for a property on Borrisokane Road in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the subject site and adjacent properties and identify any environmental concerns with the potential to impact the subject property.

Based on a review of historical records, part of the subject property appears to have been used as a sand pit in the 1970s. Other parts of the property were vacant or agricultural fields. No historical potentially contaminating activities (PCAs) were identified on the Phase I property. Surrounding properties have historically been used for agricultural and mineral aggregate extraction purposes. In a review of the historical records, no Potentially Contaminating Activities were identified.

Numerous test holes have been excavated on the property by Paterson Group for geotechnical investigations. During these investigations, no indications of contamination or deleterious fill were observed.

Following the historical review, a site visit was conducted. The subject property currently exists as vacant, tree covered land. No environmental concerns were identified on the subject site at the time of the site visit, although some waste items (including furniture) have been discarded along the trail/gravel road leading onto the western part of the site, and around the former aggregate pit.

The surrounding land use consisted of aggregate extraction (sand and gravel) land, residential, and vacant properties. No PCAs were identified in the Phase I study area.

Based on the results of this Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the property.**

Recommendations

It is recommended that all discarded/waste items be properly disposed of during the future development of the land.

8.0 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 Tamarack (Nepean) Corporation. Permission and notification from Tamarack and Paterson will be required to release this report to any other party.

Paterson Group Inc.



Anna Graham, M.E.S.



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



Report Distribution:

- Tamarack (Nepean) Corporation
- Paterson Group Inc.

9.0 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).
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.
Inera Technologies Limited Report “Mapping and Assessment of Former Industrial Sites, City of Ottawa”, 1988.
The City of Ottawa eMap website.

Local Information Sources

Previous Engineering Reports.
Plan of Survey, prepared by Stantec Geomatics Ltd., dated 2007.
Draft Plan of Subdivision, prepared by Stantec Geomatics Ltd., dated 2018.

Public Information Sources

Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE0190-3 – SITE PLAN

DRAWING PE0190-4 – SURROUNDING LAND USE PLAN

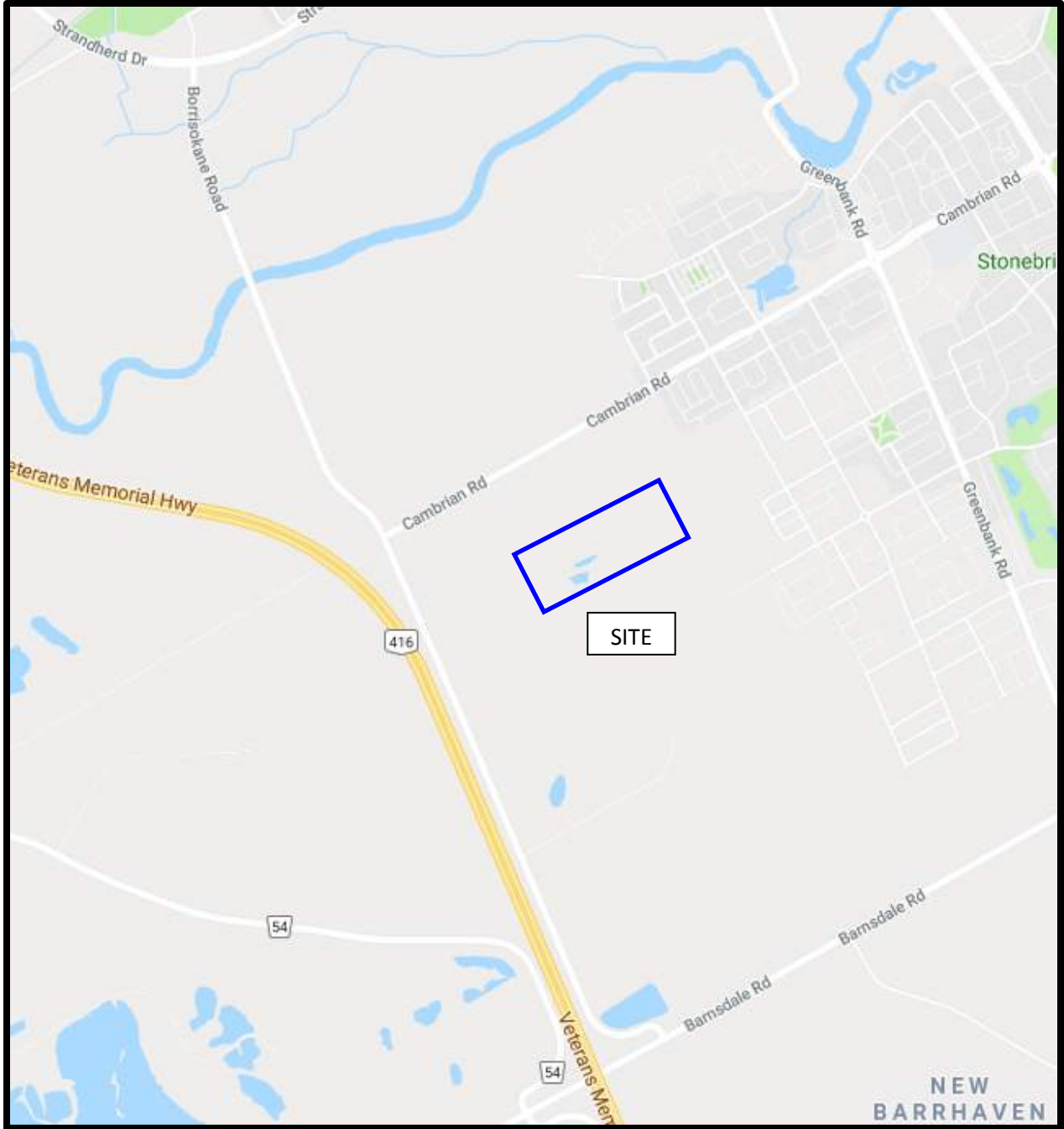


FIGURE 1
KEY PLAN

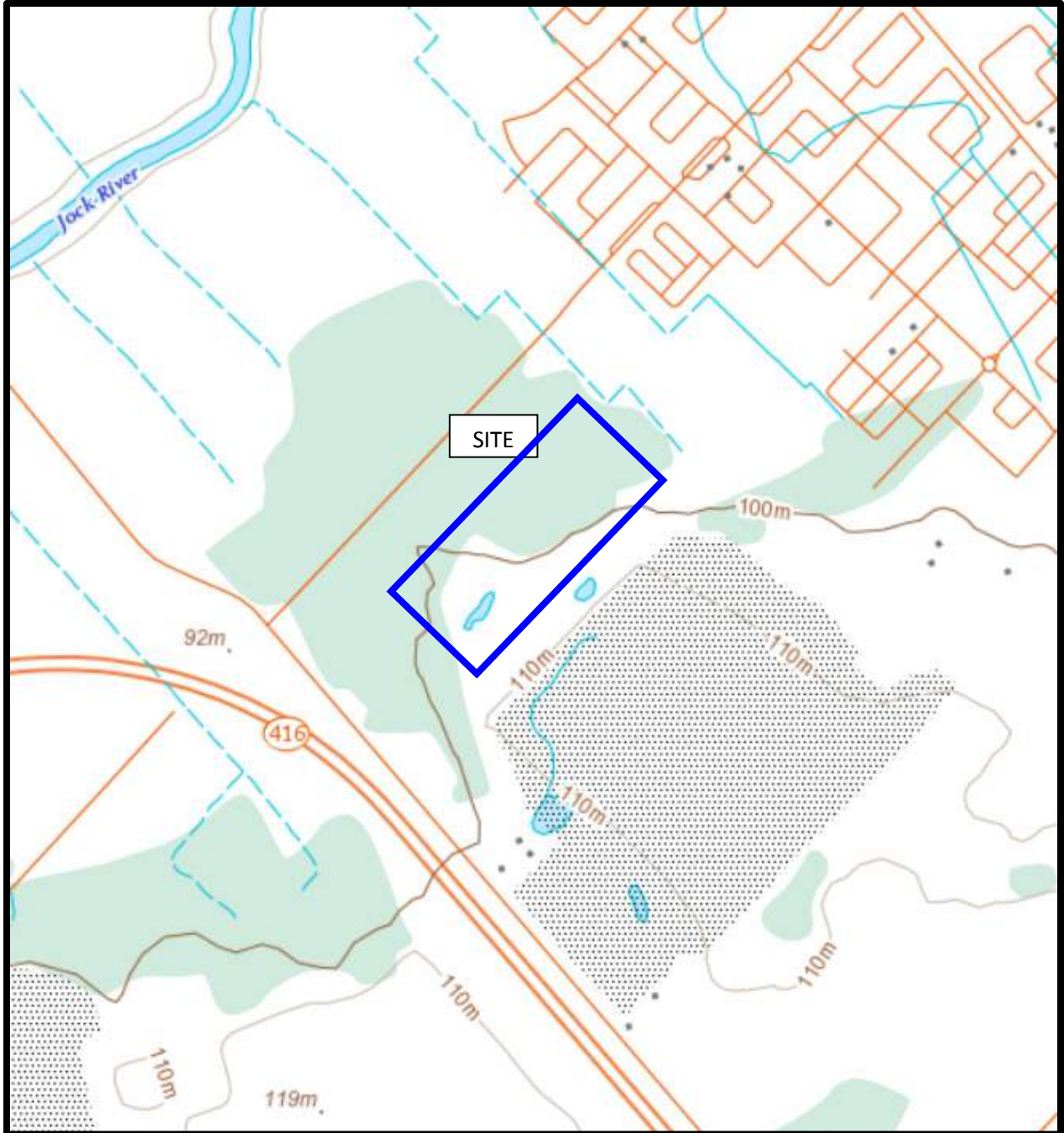
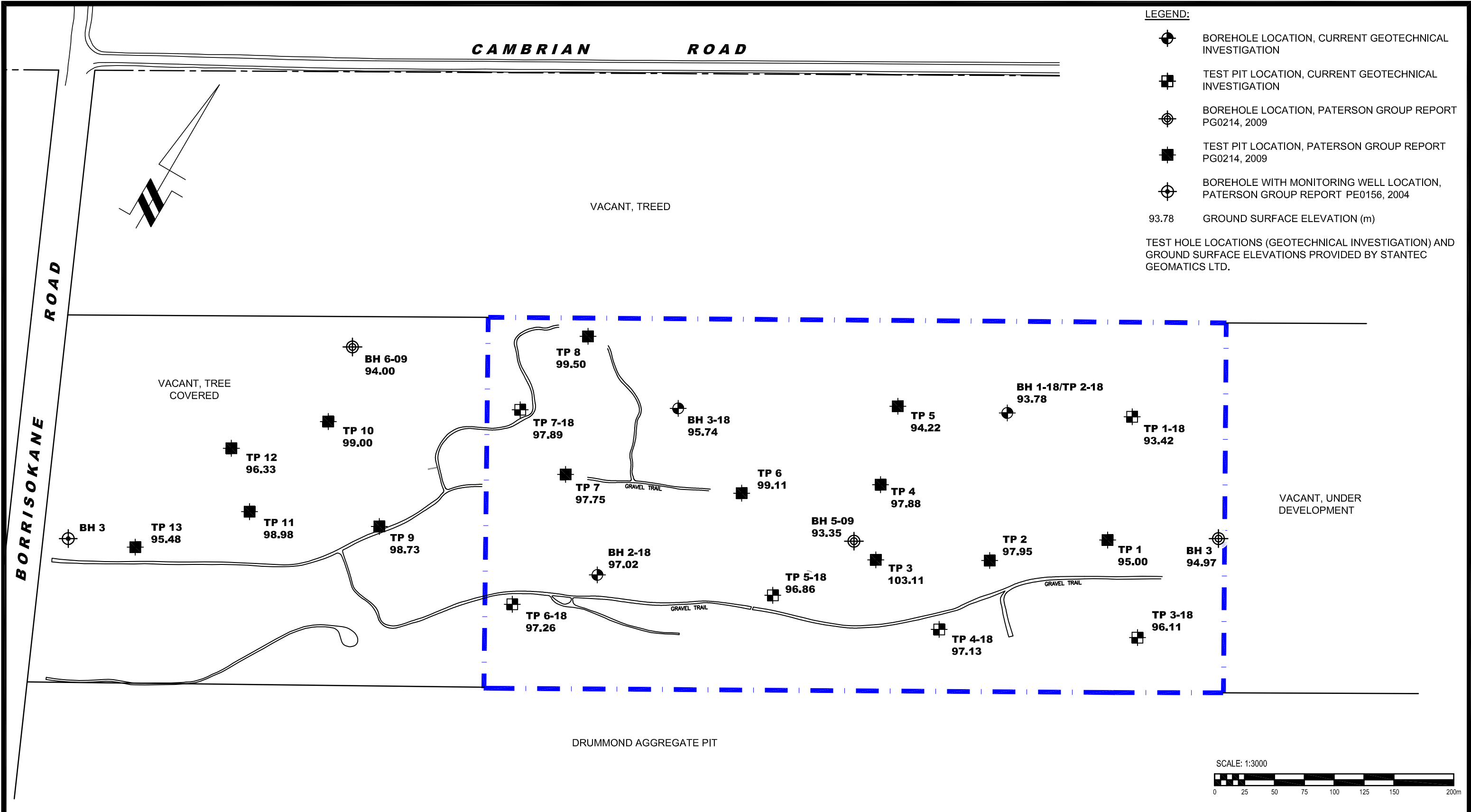


FIGURE 2
TOPOGRAPHIC MAP



patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

TAMARACK (NEPEAN) CORPORATION
PHASE I ENVIRONMENTAL SITE ASSESSMENT
THE MEADOWS - BORRISOKANE ROAD

OTTAWA, ONTARIO

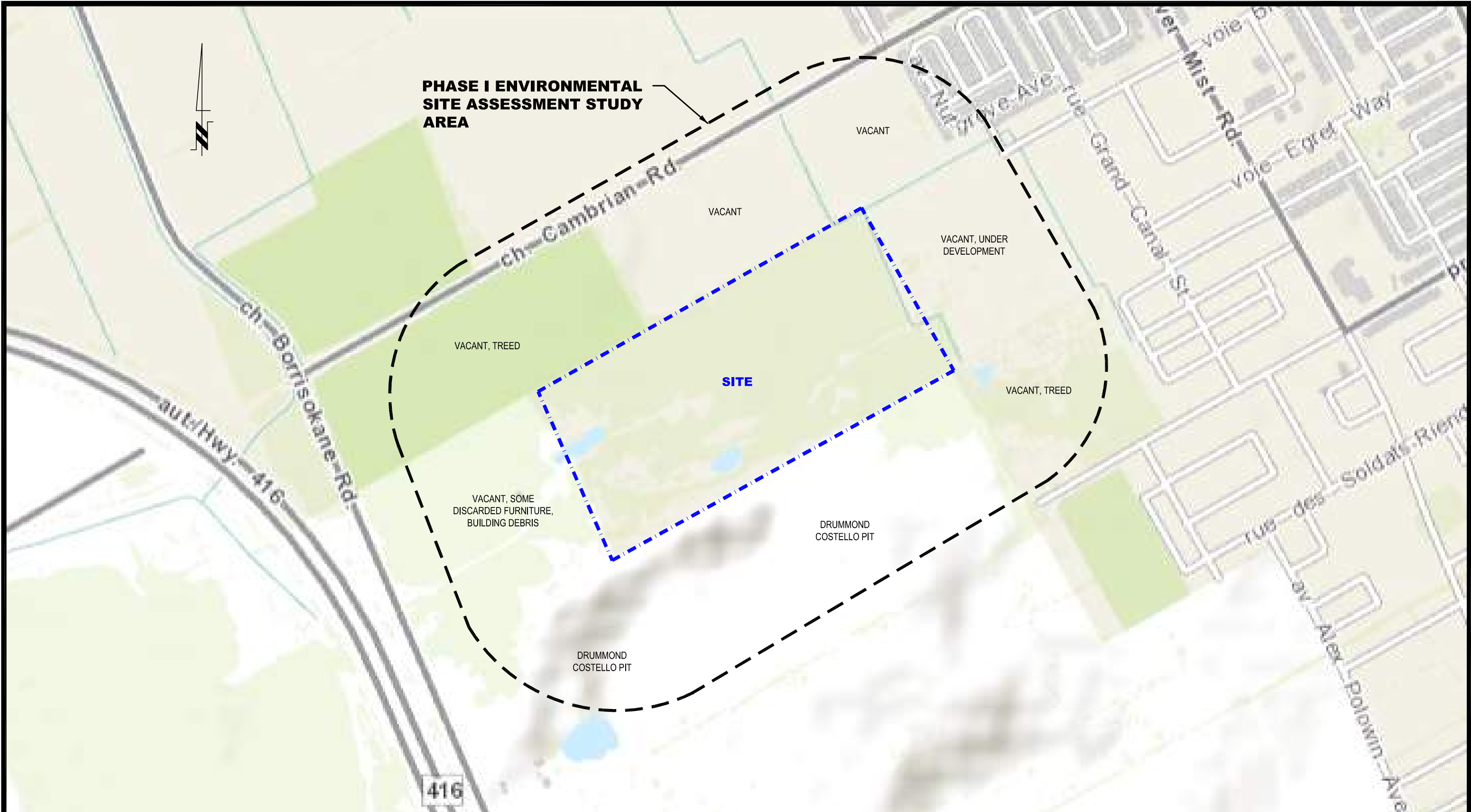
Title: **SITE PLAN**

Scale:	1:3000	Date:	02/2018
Drawn by:	MPG	Report No.:	PE0190-3
Checked by:	AG	Dwg. No.:	PE0190-3
Approved by:	MD	Revision No.:	0

p:\autocad drawings\environmental\pe0190-3\pe0190-1 site plan.dwg



**PHASE I ENVIRONMENTAL
SITE ASSESSMENT STUDY
AREA**



patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

OTTAWA, ONTARIO

TAMARACK (NEPEAN) CORPORATION
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
THE MEADOWS - BORRISOKANE ROAD

SURROUNDING LAND USE PLAN

Scale:	1:6000	Date:	02/2018
Drawn by:	AG	Report No.:	PE0190-3
Checked by:	MD	Dwg. No.:	PE0190-4
Approved by:	MSD	Revision No.:	0

APPENDIX 1

PLAN OF SURVEY

DRAFT PLAN OF SUBDIVISION

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS

PLAN OF SURVEY OF
 PART OF LOT 10
 CONCESSION 3 (RIDEAU FRONT)
 GEOGRAPHIC TOWNSHIP OF NEPEAN
 CITY OF OTTAWA
 FORMERLY IN THE CITY OF NEPEAN

STANTEC GEOMATICS LTD.
 2007

SCALE 1:2000 METRIC
 0 50 100 150 200 250
 METRES

METRIC
 DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

BEARING NOTE
 BEARINGS HEREON ARE GRID BEARINGS AND ARE DERIVED FROM N.C.C. CONTROL MONUMENTS No. 19881632 (N5012741.290, E3622515.994) AND No. 19690001 (N5013876.298, E3622050.037) AND ARE REFERRED TO THE CENTRAL MERIDIAN 76°30' WEST LONGITUDE OF ZONE 9 OF THE 3° N.T.M. CO-ORDINATE SYSTEM AND ARE BASED ON THE NORTH AMERICAN DATUM, 1983 ADJUSTMENT.

NOTICE OF APPLICATION
 REGISTERED AS
 No. OC 680603

I REQUIRE THIS PLAN TO BE
 DEPOSITED UNDER THE LAND
 TITLES ACT.

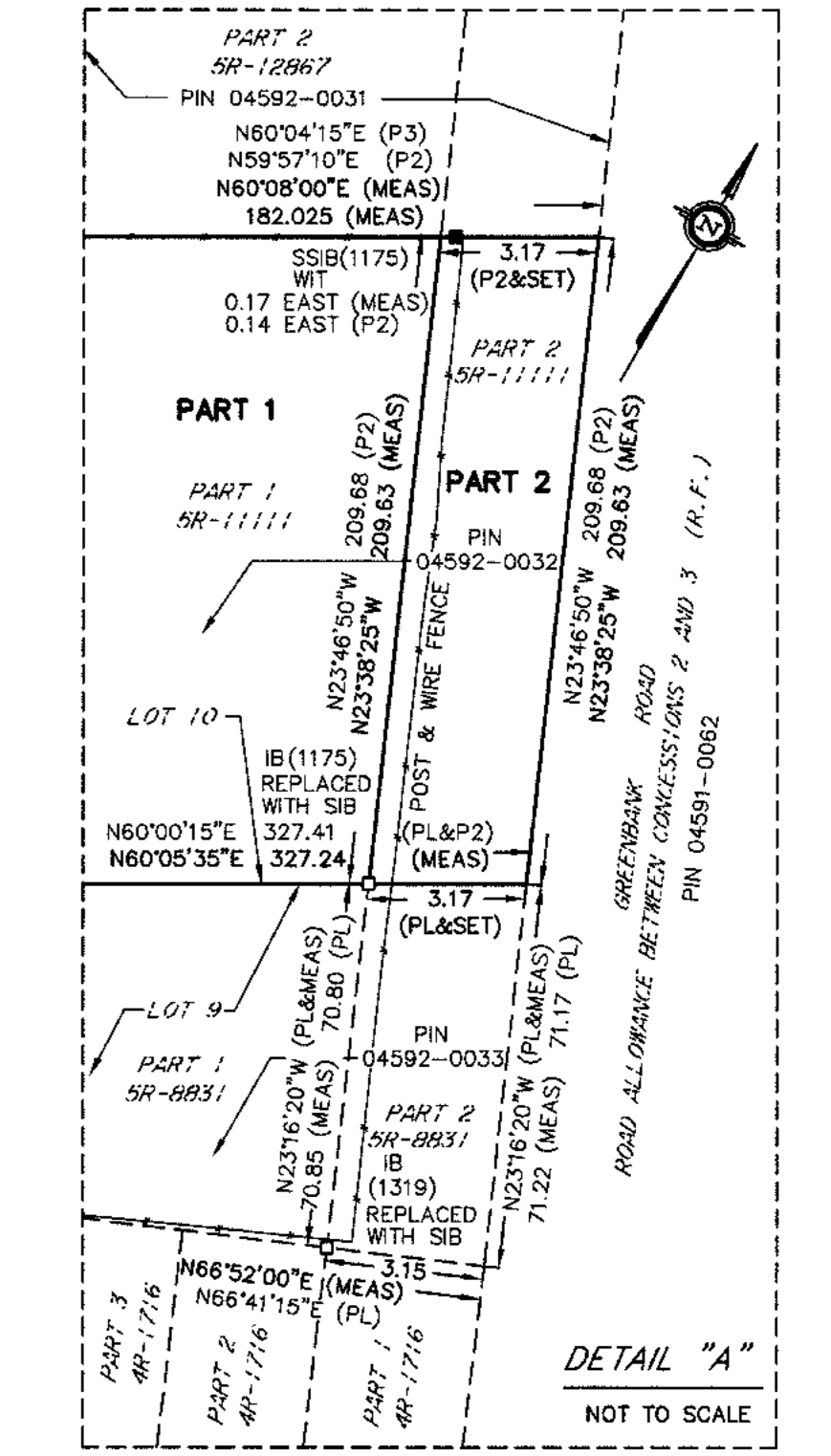
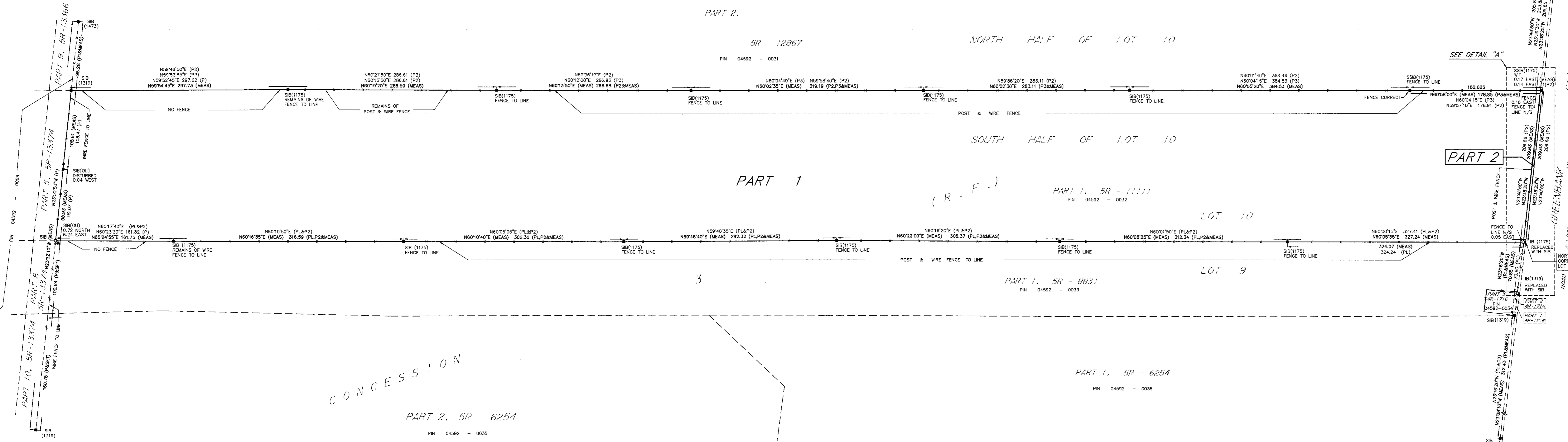
PLAN 4R-21819

RECEIVED AND DEPOSITED
 MARCH 6th 2007

Jan 25 2007
 D.A.S.
 D.A. SIMMONDS
 ONTARIO LAND SURVEYOR

MISS "D. TALKOVIC"
 LAND REGISTRAR FOR THE
 LAND TITLES DIVISION OF
 OTTAWA - CARLETON NO. 4

SCHEDULE				
PART	LOT	CONCESSION	PIN	AREA (Ha)
1	10	3 (R.F.)	ALL OF PIN 04592-0032	41.936
2				0.0861



CONCESSION
 PART 2, 5R - 6254
 PIN 04592 - 0035

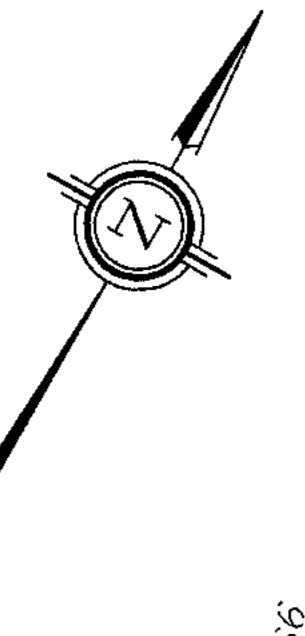
LEGEND & NOTES : (IF APPLICABLE)	(1473)(50)	DENOTES STANTEC GEOMATICS LTD.	P&W	DENOTES POST & WIRE FENCE
■	DU	DENOTES ORIGIN UNKNOWN	1319	DENOTES W. J. WEBSTER
□	MEAS.	DENOTES MEASURED	1175	DENOTES H. A. K. SHIPMAN
○	PROP.	DENOTES PROPORTIONED	647	DENOTES H. R. FARLEY
IB	PL	DENOTES PLAN SR-8831	CALC	DENOTES CALCULATION
SIB	P	DENOTES PLAN SR-13374		
SSIB	P1	DENOTES PLAN SR-13368		
CC	P2	DENOTES PLAN SR-1111		
N&W	P3	DENOTES PLAN SR-12867		
WT	P4	DENOTES PLAN SR-6254		

SURVEYOR'S CERTIFICATE:
 I HEREBY CERTIFY THAT:
 1. THIS PLAN AND SURVEY ARE CORRECT AND IN ACCORDANCE WITH THE SURVEY ACT, SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
 2. THE SURVEY WAS COMPLETED ON THE 19th DAY OF JANUARY, 2007.
 DATED: Jan 25/07
 D.A. SIMMONDS
 ONTARIO LAND SURVEYOR

STANTEC GEOMATICS LTD.
 Ontario Land Surveyors
 OTTAWA - ONTARIO
 (613)722-4420 FAX (613)722-0769
 E-Mail: dsimmonds@stantec.com
 Website: www.stantec.com

Stantec

DRAWN: MZ CHECKED: HR FIELD: SA P.M.: PP JOB NO.: 16160681-114



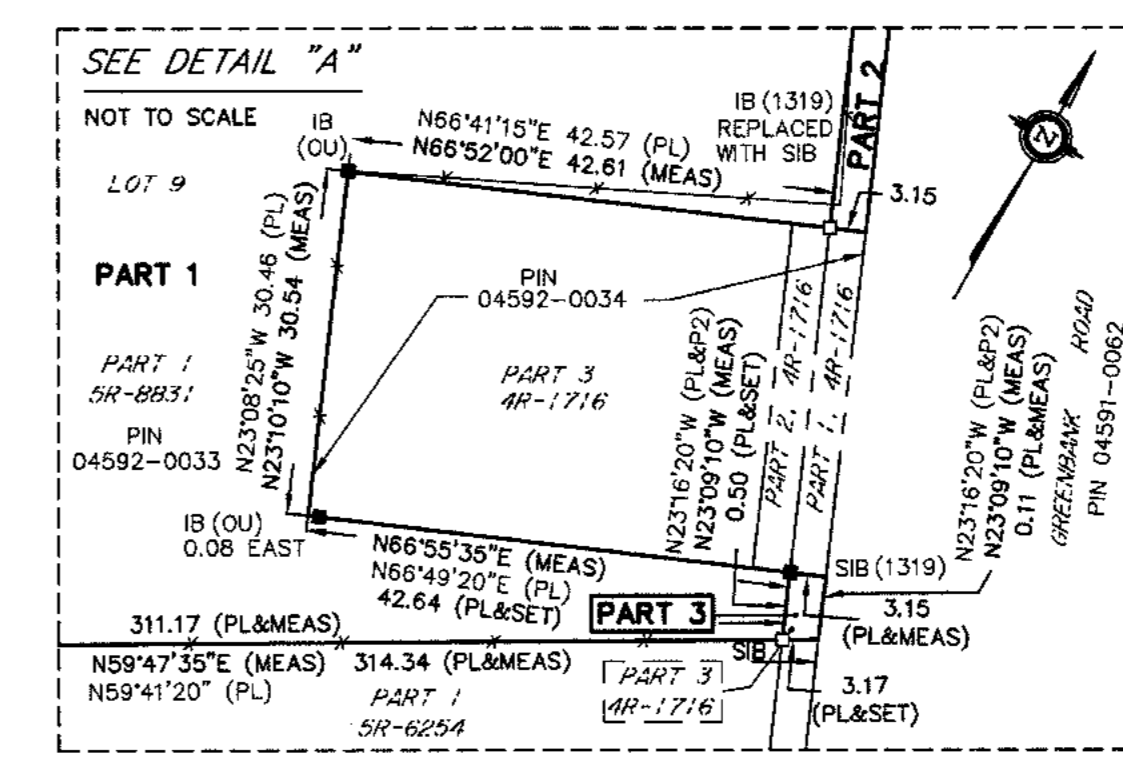
PLAN OF SURVEY OF
PART OF LOT 9
CONCESSION 3 (RIDEAU FRONT)
GEOGRAPHIC TOWNSHIP OF NEPEAN
CITY OF OTTAWA
FORMERLY IN THE CITY OF NEPEAN

STANTEC GEOMATICS LTD.
2007

SCALE 1:2000 METRIC
0 50 100 150 200 250
METRES

METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

BEARING NOTE
BEARINGS HEREON ARE GRID BEARINGS AND ARE DERIVED FROM N.C.C. CONTROL MONUMENTS No. 19881032 (N5012741.290, E362515.994) AND No. 19880091 (N5013876.208, E362059.037) AND ARE REFERRED TO THE CENTRAL MERIDIAN 76°00' WEST LONGITUDE OF ZONE 9 OF THE 3° M.T.M. CO-ORDINATE SYSTEM AND ARE BASED ON THE NORTH AMERICAN DATUM, 1983 ADJUSTMENT.



NOTICE OF APPLICATION
REGISTERED AS
No. 0c 880599

I REQUIRE THIS PLAN TO BE
DEPOSITED UNDER THE LAND
TITLES ACT.

Jan 25 2007

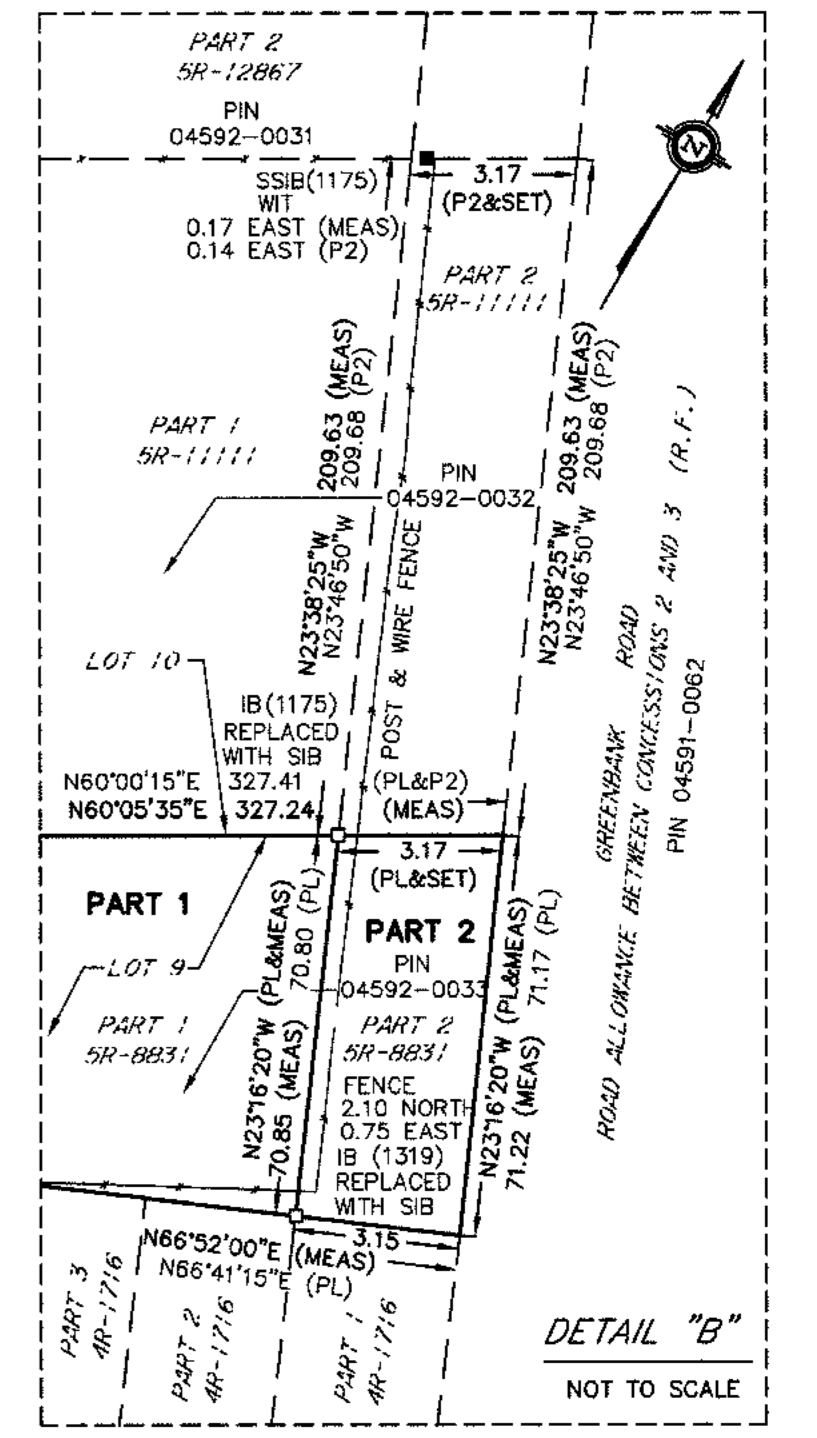
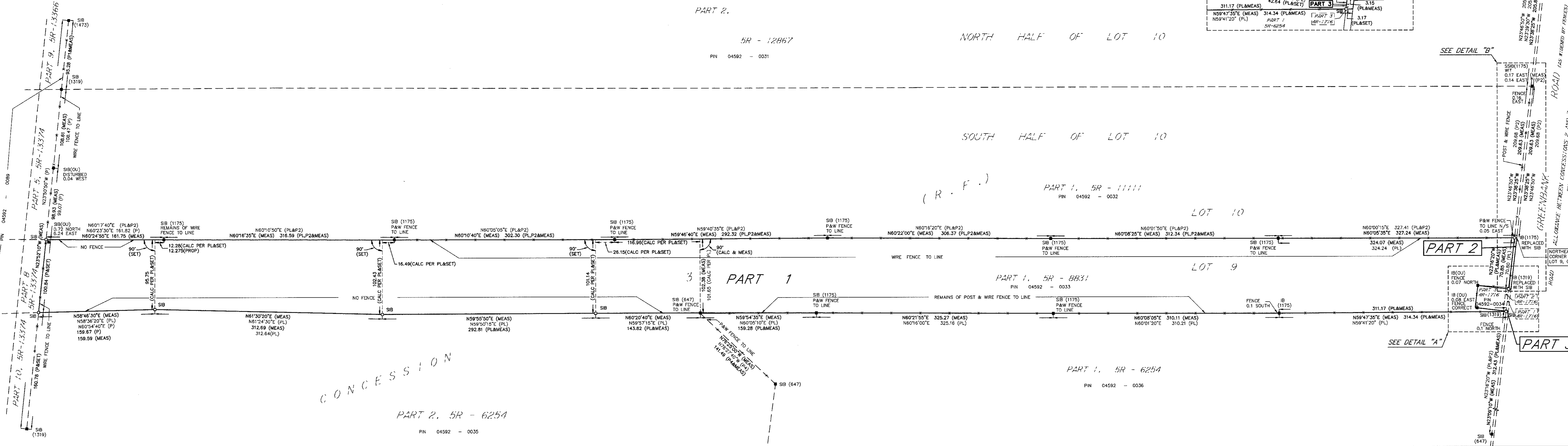
D.A. SIMMONDS
ONTARIO LAND SURVEYOR

PLAN 4R-21820

RECEIVED AND DEPOSITED
MARCH 6th 2007

D. J. TRICKOVIC
LAND REGISTRAR FOR THE
LAND TITLES DIVISION OF
OTTAWA - CARLETON NO. 4

SCHEDULE				
PART	LOT	CONCESSION	PIN	AREA (Ha)
1	9	3 (R.F.)	ALL OF PIN 04592-0033	20.396
2				0.0224
3				0.0001



LEGEND & NOTES : (IF APPLICABLE)

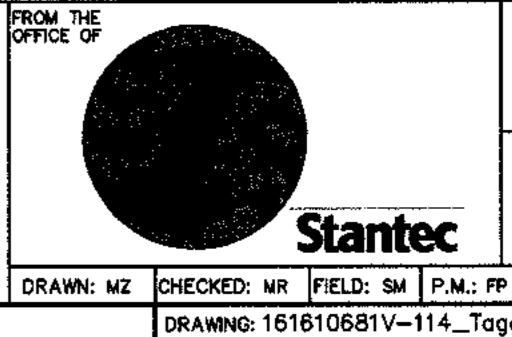
■	DENOTES FOUND MONUMENTS	(1473)(S)G	DENOTES STANTEC GEOMATICS LTD.
□	DENOTES MEASURED	OL	DENOTES ORIGIN UNKNOWN
IB	DENOTES IRON BAR	MEAS.	DENOTES MEASURED
SIB	DENOTES STANDARD IRON BAR	PROP.	DENOTES PROPORTIONED
SSIB	DENOTES SHORT STANDARD IRON BAR	PL	DENOTES PLAN SR-8831
OC	DENOTES CUT CROSS	P	DENOTES PLAN SR-13374
N&W	DENOTES NAIL & WASHER	P1	DENOTES PLAN SR-13366
WT	DENOTES WITNESS	P2	DENOTES PLAN SR-11111
		P3	DENOTES PLAN SR-12867
		P4	DENOTES PLAN SR-6254

DENOTES POST & WIRE FENCE
DENOTES W. J. WEBSTER
DENOTES H. A. K. SHIPMAN
DENOTES H. R. FARLEY
DENOTES CALCULATION

SURVEYOR'S CERTIFICATE:
I HEREBY CERTIFY THAT:
1. THIS PLAN AND SURVEY ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 19th DAY OF JANUARY, 2007.

DATED: Jan 25/07

D.A. SIMMONDS
ONTARIO LAND SURVEYOR



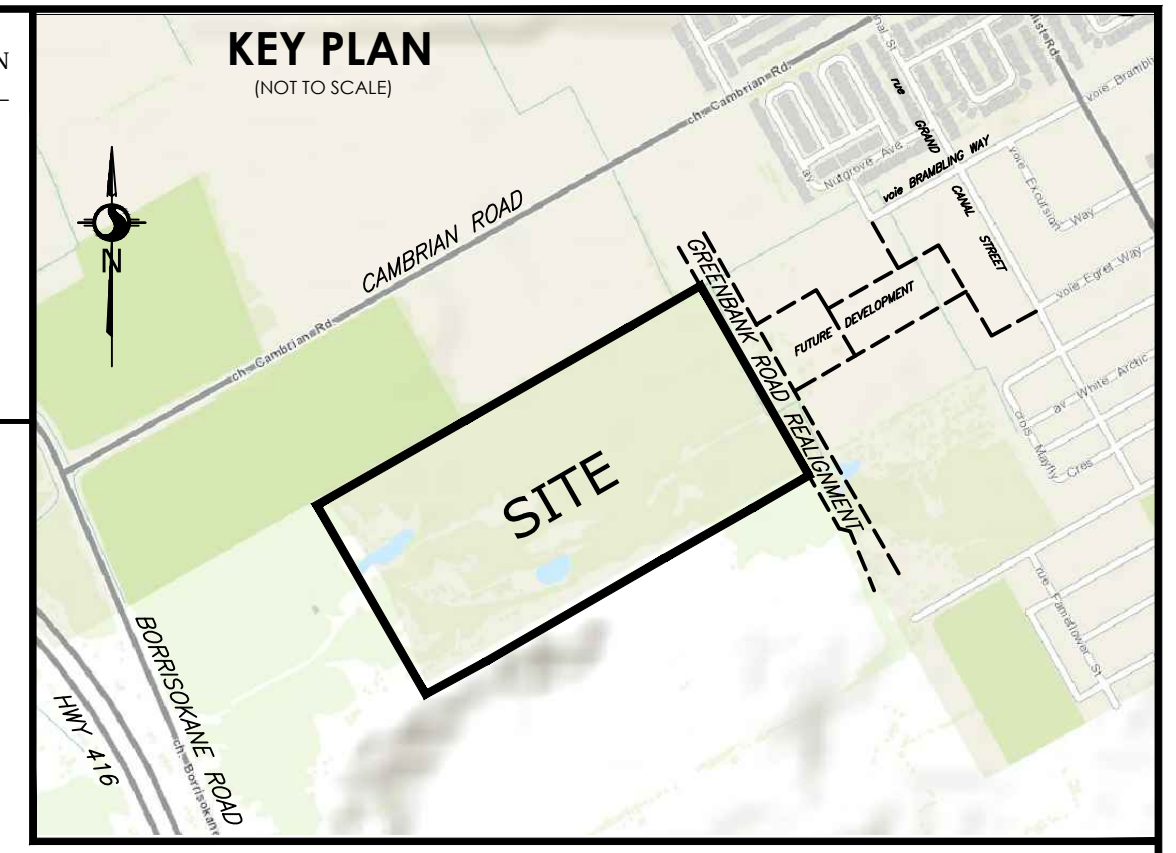
STANTEC
GEOMATICS
LTD.

Ontario Land Surveyors
OTTAWA - ONTARIO
(613)722-4420 FAX (613)722-0789
E-MAIL: d.asimmonds@stantec.com
Website: www.stantec.com

DRAWN: MZ CHECKED: NR FIELD: SM P.M.: PP JOB NO: 16160881-114
DRAWING: T61610881V-114_Taggart_GreenBank_Nepean-south.dwg

SUBJECT TO THE CONDITIONS, IF ANY, SET FORTH IN OUR LETTER DATED _____ 20____ THIS DRAFT PLAN IS APPROVED BY THE CITY OF OTTAWA UNDER SECTION 51 OF THE PLANNING ACT. THIS _____ DAY OF _____ 2018.

DON HERWEYER, MCIP RPP
MANAGER, DEVELOPMENT REVIEW-SOUTH
PLANNING, INFRASTRUCTURE AND ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA



DRAFT PLAN OF SUBDIVISION
PART OF LOTS 9 AND 10
CONCESSION 3 (RIDEAU FRONT)
(GEOGRAPHIC TOWNSHIP OF NEPEAN)
CITY OF OTTAWA

Scale 1:1250
0 20 40 60 80 METRES

METRIC CONVERSION
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

SCHEDULE OF LAND USE			
LOT/BLOCK	USE	UNITS	AREA (Ha/ac)
LOTS 1 TO 125	SINGLES	125	5.40/13.36
BLOCKS 126 TO 168, 171 TO 176	TOWNS	179	4.20/10.38
BLOCKS 169, 170, 177 TO 179	B2B	42	0.51/1.28
BLOCK 180	PARK	1	1.51/3.73
BLOCK 181	SCHOOL	1	2.81/6.94
STREETS	STREET	346	4.94/12.26
TOTAL			19.39/47.92

INFORMATION: REQUIRED UNDER SECTION 51 (17) OF THE PLANNING ACT R.S.O. 1990

- a. SEE PLAN
- b. SEE PLAN
- c. SEE PLAN
- d. SEE PROPOSED LAND USE SCHEDULE (ABOVE)
- e. SEE PLAN
- f. SEE PLAN
- g. SEE PLAN
- h. CITY WATER AVAILABLE \ WELL
- i. SEE SOIL REPORT
- j. SEE TOPOGRAPHICAL INFORMATION
- k. ALL CITY SERVICES AVAILABLE
- l. NO EASEMENTS REGISTERED ON TITLE \ SUBJECT TO

OWNER'S CERTIFICATE
I HEREBY AUTHORIZE STANTEC GEOMATICS LTD. TO SUBMIT THIS DRAFT PLAN OF SUBDIVISION ON MY BEHALF

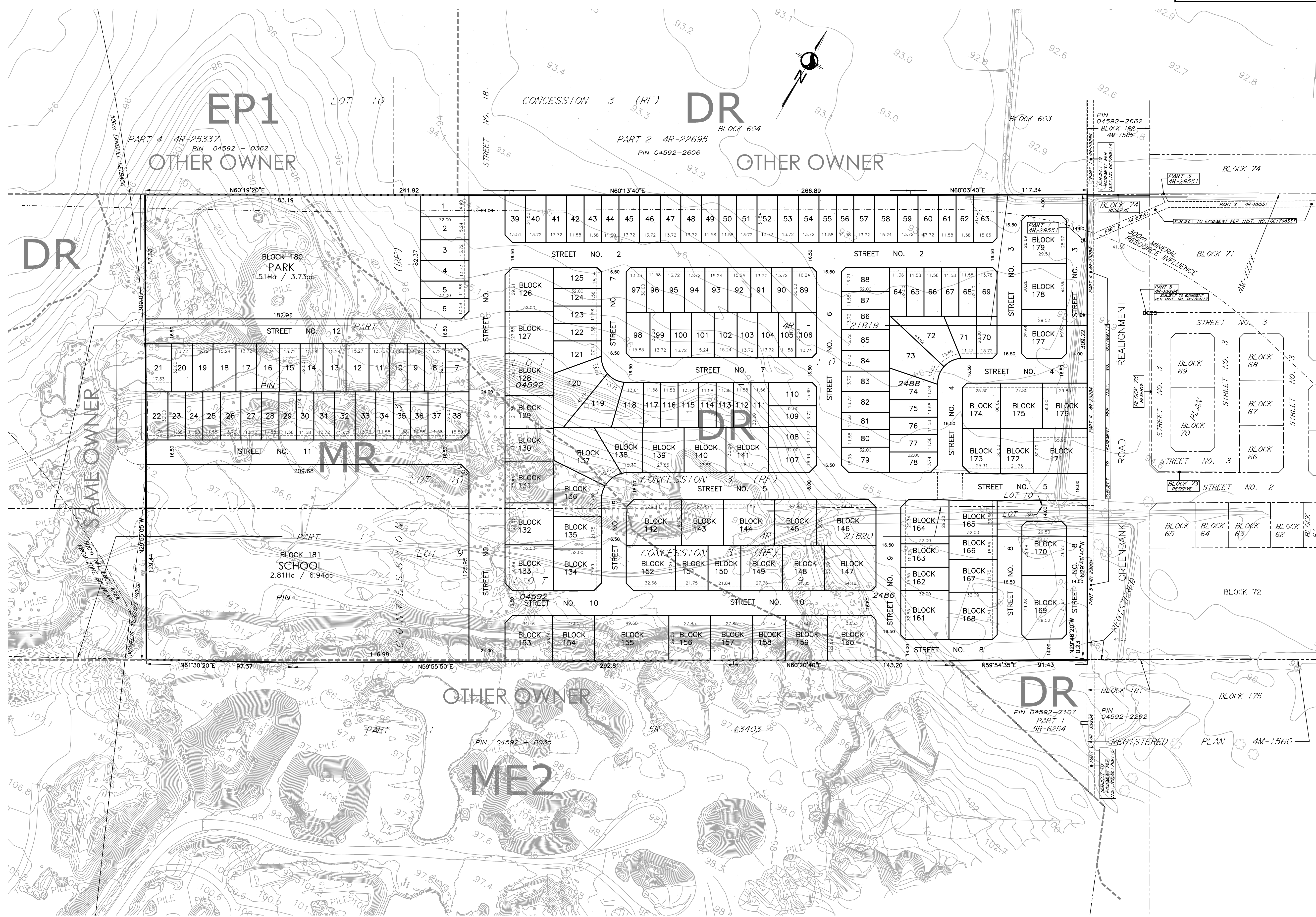
DATE _____ CHRISTOPHER TAGGART
PRESIDENT
TAMARACK (NEPEAN) CORPORATION
I HAVE THE AUTHORITY TO BIND THE CORPORATION

SURVEYOR'S CERTIFICATE
I HEREBY CERTIFY THAT THE BOUNDARIES OF THE SUBJECT LANDS AND THEIR RELATIONSHIP TO ADJOINING LANDS HAVE BEEN ACCURATELY AND CORRECTLY SHOWN.

DATE _____ BRIAN J. WEBSTER
ONTARIO LAND SURVEYOR

Stantec Geomatics Ltd.
CANADA LANDS SURVEYORS
ONTARIO LAND SURVEYORS
1331 CLYDE AVENUE, SUITE 400
OTTAWA, ONTARIO, K2C 3G4
TEL: 613.722.4420 FAX: 613.722.2799
stantec.com

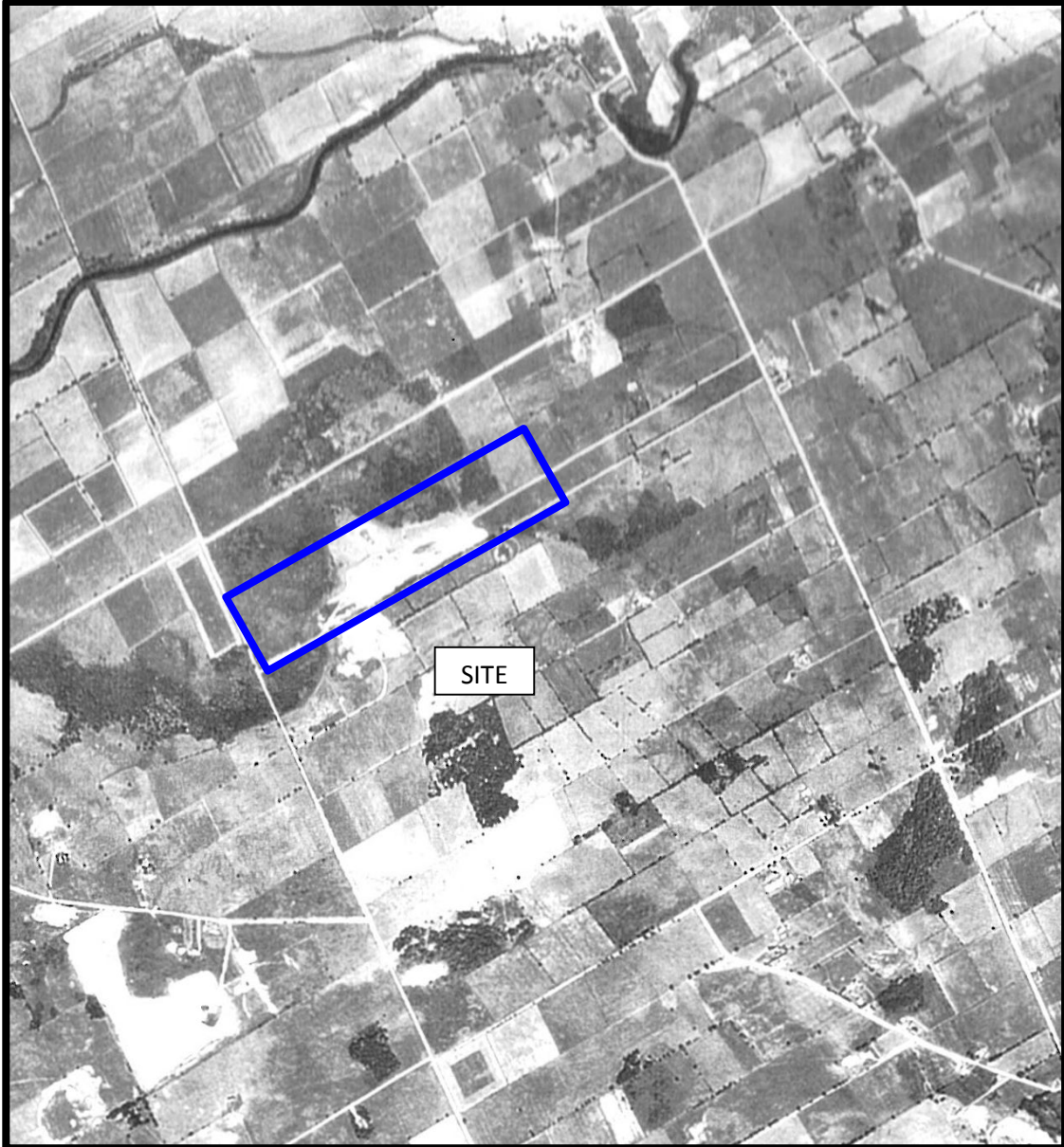
DRAWN: CEC CHECKED: FP PM: FP FIELD: N/A PROJECT NO.: 161613817-131



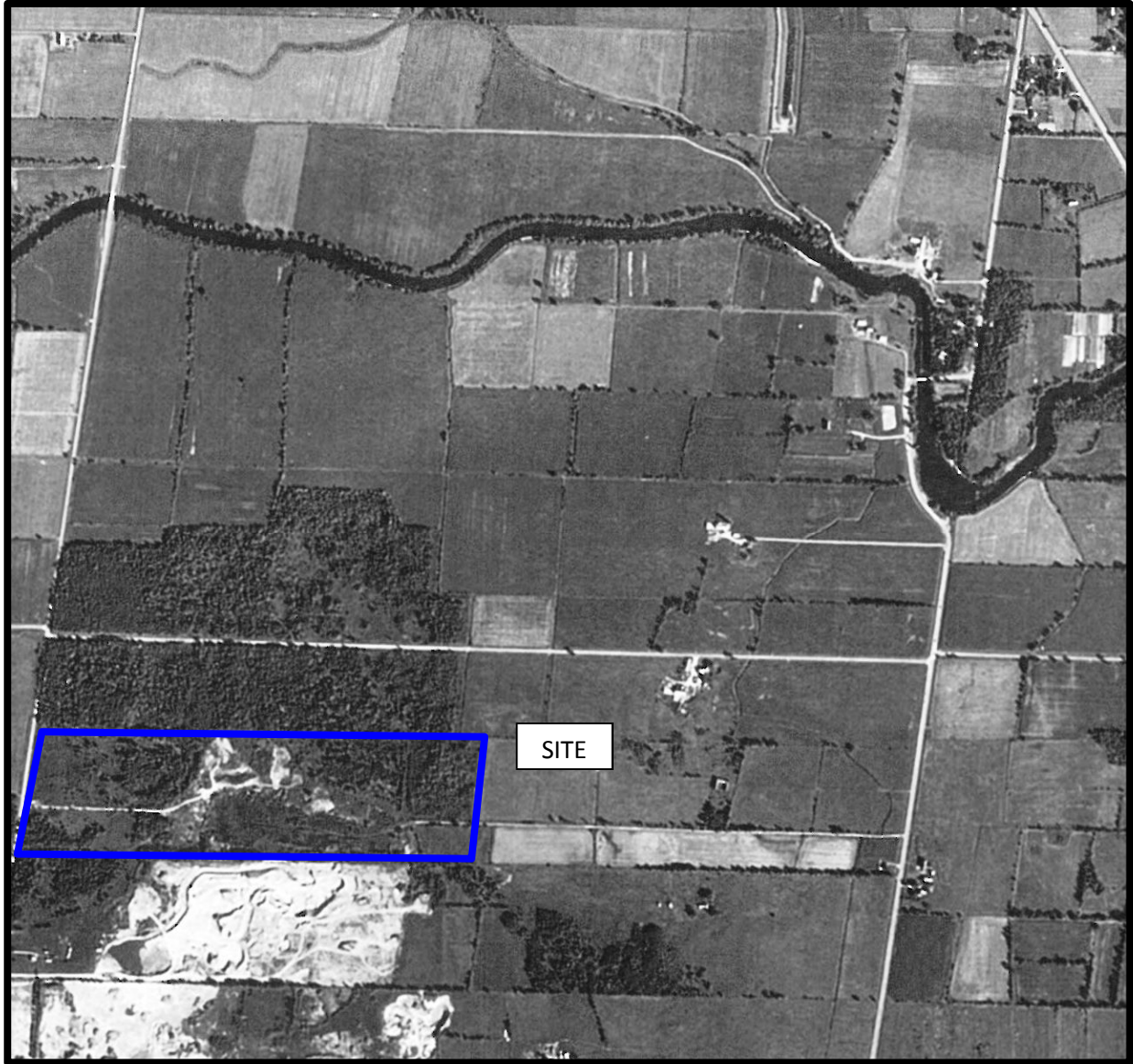
NOTE:
THE PLAN DATA IS COMPILED FROM OFFICE RECORDS OF STANTEC GEOMATICS LTD. AND HAS NOT BEEN VERIFIED BY FIELD MEASUREMENTS. ALL DISTANCES ARE APPROXIMATE. TO BE VERIFIED BY FINAL REGISTERED PLAN(S).



AERIAL PHOTOGRAPH
1959



AERIAL PHOTOGRAPH
1966



AERIAL PHOTOGRAPH
1987



AERIAL PHOTOGRAPH
1993



AERIAL PHOTOGRAPH
2001



AERIAL PHOTOGRAPH
2017

Site Photographs

PE0190

The Meadows, Borrisokane Road, Ottawa, ON

February 16, 2018



Photograph 1: Access road from Borrisokane Road leading towards the subject property. Looking east.



Photograph 2: Some construction debris, with Costello aggregate pit property behind, near the western boundary of the subject property.

Site Photographs

PE0190

The Meadows, Borrisokane Road, Ottawa, ON

February 16, 2018



Photograph 3: Open space near the western side of the subject property; former aggregate extraction pit.



Photograph 4: Storage container with unknown contents near former aggregate pit.

APPENDIX 2

MOECC FREEDOM OF INFORMATION SEARCH REQUEST

MOECC WATER WELL RECORDS

TSSA 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 Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5 Email address: agraham@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	
Your Project/Reference No. PE0190		Signature/Print /Name of Requester Anna Graham		
Request Parameters				
Municipal Address / Lot, Concession, Geographic Township (Municipal address essential for cities, towns or regions) 3640 Greenbank Road, Ottawa (Barrhaven), Ontario. Part of Lot 10, Concession 3, Rideau Front, Geographic Township of Nepean. PIN: 04592-2488, 04592-2486				
Present Property Owner(s) and Date(s) of Ownership Tamarack (Nepean) Corporation				
Previous Property Owner(s) and Date(s) of Ownership				
Present/Previous Tenant(s), (if applicable)				
Search Parameters				Specify Year(s) Requested
<i>Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.</i>				
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.

[contact us Français](#)[Popular +](#)

Trending Now

- [Ontario Public Service careers](#)
- [OSAP: Ontario Student Assistance Program](#)
- [Government services](#)
- [Outdoors Cards, Licences and Draws](#)
- [Renew a licence plate sticker](#)
- [Change the address on identification cards](#)
- [Driving and Roads](#)

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the [Open Data catalogue](#).

Recommended for you

[How to use a Ministry of the Environment map](#)

[Technical documentation: Metadata record](#)

[Go Back to Map](#)

Well ID

Well ID Number: 7223434

Well Audit Number: C19501

Well Tag Number: A122943

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	
Township	NEPEAN TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 441318.00 Northing: 5010577.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
------------	----------	--	---------------

Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

Status of Well

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7328

Results of Well Yield Testing

After test of well yield, water was

If pumping discontinued, give reason

Pump intake set at

Pumping Rate

Duration of Pumping

Final water level

If flowing give rate

Recommended pump depthRecommended pump rateWell ProductionDisinfected?**Draw Down & Recovery**

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water DetailsWater Found at Depth Kind**Hole Diameter**Depth From Depth To Diameter

Audit Number: C19501

Date Well Completed: February 27, 2012

Date Well Record Received by MOE: July 09, 2014

Updated: February 2, 2018

Rate [Rate](#)Share [facebook](#) [twitter](#) [Print](#)

Tags

- [Environment and energy](#),
- [Drinking water](#),
- [Environment maps](#),
- [Well water](#)



[Chris Ballard](#)

Minister of the Environment and Climate Change

[Ministry of the Environment and Climate Change](#)

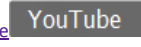
Contact Us

[Contact us by phone](#)

Follow Us

[Find us on Facebook](#)

[Follow us on Twitter](#) 

[Follow us on YouTube](#) 

[Follow us on Flickr](#) 

[Follow us on Tumblr](#) 

Topics

- [Arts and culture](#)
- [Business and economy](#)
- [Driving and roads](#)
- [Education and training](#)
- [Environment and energy](#)
- [Government](#)
- [Health and wellness](#)
- [Home and community](#)
- [Jobs and employment](#)
- [Law and safety](#)
- [Laws](#)
- [Rural and north](#)
- [Taxes and benefits](#)
- [Travel and recreation](#)

[ABOUT ONTARIO](#)



- [privacy](#)
- [accessibility](#)
- [terms of use](#)

[© Queen's Printer for Ontario, 2012-18](#)



Anna Graham

From: Anna Graham
Sent: February-08-18 4:20 PM
To: 'Public Information Services'
Subject: Records search request for 3640 Greenbank

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:

3640 Greenbank Road
3713 Borrisokane Road
3809 Borrisokane Road
4475 Trail Road
3900 Cambrian Road
3831 Cambrian Road
670 Dundonald Drive

Thank you,

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

patersongroup
solution oriented engineering

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Tel: (613) 226-7381 Ext. 228
Fax: (613) 226-6344
Email: agraham@patersongroup.ca

APPENDIX 3

QUALIFICATIONS OF ASSESSORS



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