Geotechnical Engineering

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Phase I Environmental Site Assessment

4837 Albion Road Ottawa, Ontario

Prepared For

Rideau Carleton Raceway and Hard Rock Café c/o The Stirling Group

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Report: PE4149-1

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EXECUTIVE SUMMARY

Assessment

A Phase I Environmental Site Assessment (Phase I-ESA) was carried out for the western portion of 4837 Albion Road, in the City of Ottawa, Ontario. The purpose of this Phase I – Environmental Site Assessment 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 properties.

Based on historical searches, the property was developed as early as 1945 with a farmstead. In 1962, the site was redeveloped with a two-storey residential dwelling, the Rideau Carleton Raceway (RCR) and an asphaltic concrete parking lot. No environmental concerns were identified with respect to the historical use of the subject site.

Surrounding properties historically consisted of residential properties, agricultural fields and undeveloped treed lands. One potentially contaminating activity was identified within the Phase I-ESA study area. This potentially contaminating activity was not considered to represent an area of potential environmental concern on the subject site.

Following the historical review, a site visit was conducted. The site is currently occupied by a three-storey commercial structure (Rideau Carleton Raceway), which features a casino and several restaurants; a one-storey residential dwelling; an asphaltic concrete parking lot and grass fields. Neighbouring properties to the east were identified as the RCR tracks and stables. Properties to the west are occupied by farmsteads and a golf club. Properties to the north consist of vacant lands and a combination of residential and commercial buildings. Properties to the south are occupied by a farmstead and agricultural fields. One (1) PCA was identified 70m north of the subject site, however, it is not considered to represent an area of potential environmental concern on the subject site.

Conclusion

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

1.0 INTRODUCTION

At the request of the Stirling Group, acting on behalf of the Rideau Carleton Raceway and Hard Rock Café, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) for 4837 Albion 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 Jack Stirling of The Sitrling Group. The Stirling Group offices are located at 1148 Julia Court, Ottawa, On. Mr. Sitrling can be reached by phone 613-793-6255.

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

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:	4837 Albion Road, Ottawa, Ontario.			
Legal Description:	Parts of Lots 23 and 24, Concession 4, Township of Gloucester, Rideau Front, now in the City of Ottawa. The Phase I site area consist of the western most 330m of the property, which includes the main casino building, parking areas and a residential dwelling.			
Property Identification Number:	04328-0500 and 04328-0501.			
Location:	The subject site is located on the east side of Albion Road, north of Rideau Road, in Ottawa, Ontario.			
Latitude and Longitude:	45° 17' 43.20" N, 75° 36' 24.35" W;			
Site Description:				
Configuration:	Rectangular.			
Site Area:	17.85 hectares (approximately).			
Zoning:	RC4, rural commercial zone.			
Current Use:	The subject site is currently occupied by the Rideau Carleton Raceway and Hard Rock Café, a one-storey residential dwelling, a parking lot and grass covered fields.			
Services:	The subject site is located in a municipally serviced area. The subject site uses a private well for the fire suppression system and for the stables.			

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

According to aerial photos, the land was developed as early as 1945 with a farmstead.

Fire Insurance Plans

Fire insurance plans (FIPs) are not available for the area of the subject site.

City of Ottawa Street Directories

Suburban Ottawa city directories from 1993 to 2011 at the National Archives were reviewed in approximate 10-year intervals for the subject site and properties located within the Phase I ESA study area. Directories prior to these dates are not available. In 2011 the subject site address was listed in the directories as Lasting Impressions Catering, Executive Coach Ottawa, GML Tack Shop and Rideau Carleton Raceway.

One (1) Potentially Contaminating Activity (PCA), Jenstar Road Paving (listed in 2011) was identified 70m north of the subject site (4109 Albion Road), within the Phase I study area. Five (5) aboveground fuel storage tanks were observed at 4109 Albion Road during the site visit. Based on the limited time of operation (since approximately 2008 based on air photos) and the inferred cross-gradient location with respect to the subject site, the road paving facility located at 4109 Albion Road is not considered to represent an area of potential environmental concern for the subject site.

Property Ownership

Paterson contacted Rideau Carleton Raceway to determine the current property owners. According to information provided by a Rideau Carleton Raceway representative, Rideau Carleton Raceway is currently owned by HR LP Investor Inc. (owned by Hard Rock International) and RCR Investor Inc. (owned by Rideau Carleton Raceway Holdings Limited).

4.2 Environmental Source Information

Environment and Climate Change Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on October 25, 2017. The subject site was 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 were identified in 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 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 Record of Site Conditions (RSCs) were found for the subject site or within 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 former waste disposal sites were identified within the Phase I study area.

Areas of Natural Significance Interest (ANSI)

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 October 25, 2017. The search did not reveal any natural features or areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on October 30, 2017 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring 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.

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 were located within the Phase I study area.

City of Ottawa Historical Land Use Inventory

A request for information from the City's Historical Land Use Inventory (HLUI 2005) database for the subject property was sent on November 7, 2017 to the City of Ottawa. 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.

Previous Engineering Reports

The following engineering reports were reviewed as a part of the Phase I-ESA:

Project Specific Designated Substances and Hazardous Building Materials Assessment, 4837 Albion Road., Ottawa, ON', prepared by Stantec, dated August 2015.

Stantec Consulting Ltd. conducted a designated substances and hazardous building materials assessment of the original portion (1962) of the RCR building in August of 2015. Please refer to this report prior to the disturbance of suspected designated substances and hazardous building materials.

Geotechnical Investigation, Phase 2 and 3 Expansion, 4837 Albion Road., Ottawa, ON', prepared by Paterson Group, dated November 2017.

A subsurface geotechnical investigation was conducted by Paterson in November 2017. Eleven (11) boreholes were drilled on the Phase I property in areas of proposed building expansion footprints. No visual or olfactory evidence of deleterious materials observed in the geotechnical boreholes.

A review of previous engineering reports conducted by Paterson in the area of the subject site identified a former private automotive service garage 50m west of the subject site, located at 4792 Albion Road. Paterson conducted a subsurface investigation in 2016 as part of a Phase I/II-ESA. Based on findings within this report, the former private automotive service garage is not considered to have had the potential to impact the subject site.

This firm did not identify any additional issues considered to pose a risk to the subject land following a review of environmental projects in the area of the subject site completed by Paterson Group.

4.3 Physical Setting Sources

Aerial Photographs

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

- 1945 A farmstead is visible on the subject site. Neighbouring properties are primarily used for agricultural purposes. High Road and Albion Road can be seen at this time. Farmsteads are present along Albion Road and High Road to the north, south and west of the subject site.
- 1969 The farmstead on the subject site has been demolished. The subject site has been developed with the original Rideau Carleton Raceway structure, a one-storey residential dwelling and a parking area. The neighbouring property to the east is occupied by the Rideau Carleton Raceway track. New residential dwellings have been developed to the north, along Albion Road. No other apparent changes have been made to the neighbouring properties.
- 1978 No significant changes appear to have been made to the subject or neighbouring properties.
- 1991 (City of Ottawa Website) No significant changes appear to have been made to the subject or neighbouring properties.
- 2002 (City of Ottawa Website) The commercial structure on the subject site has been expanded. The parking lot has been paved with asphaltic concrete. A portion of the neighbouring property to the west has been redeveloped as a golf course.
- 2014 (City of Ottawa Website) No significant changes appear to have been made to the subject or neighbouring properties.

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. The topographic maps indicate that the subject site and regional topography slope slightly downward to the northeast. No environmental concerns were identified on the topographic mapping. An illustration of the referenced topographic map is present on Figure 2 - Topographic Map following the body of 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, "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 the information from NRCAN, bedrock in the area of the site consists primarily of dolostone of the Oxford Formation. Based on the maps, the thickness of overburden ranges from 10 to 25 m and the overburden consists of glaciofluvial deposits.

Water Well Records

A search of the MOECC's web site for all drilled well records within 250 m of the subject site was conducted on October 30, 2017. The search returned one (1) drinking water well record on the subject site, drilled in December of 1957. Based on conversations with the Rideau Carleton Raceway facility manager, the well is only used to supply water to the stables and to fill the tank for the fire suppression system.

The search returned four (4) drinking water well records within the study area. Water well records within the search radius have been included in Appendix 2.

Water Bodies and Areas of Natural Significance

There are no areas of natural and scientific interest on the subject property or within the study area. A man-made pond is located 75m east of the subject site. No other water bodies are located within the Phase I study area.

5.0 INTERVIEWS

Property Owner

Mr. Wilf Gondermann, the Rideau Carleton Raceway facility manager, was present during the site visit. Mr. Gondermann told Paterson that the subject building had been expanded and completely renovated in 1999. Paterson was informed by Mr. Gondermann that a Designated Substances and Hazardous Material survey was conducted by Stantec in 2015. Mr. Gondermann told Paterson that no PCBs were identified in any ballasts or transformers located on the site. Mr. Gondermann told Paterson that three (3) of the eight (8) interior transformers are active. Paterson was told that the interior double-walled 454L above-ground fuel storage tank (AST) located in the pump room on the lower level was installed in 1999, while the exterior double-walled 9,000L AST was installed in 2015 (to power the backup generator). Mr. Gondermann informed Paterson that the building was historically heated with electric heaters. provided Paterson with plans indicating the location of the proposed commercial buildings. Paterson was told by Mr. Gondermann that the two (2) elevators and four (4) escalators were installed in 1999. Paterson was informed that the rubber membrane style roof was completely redone in 2014.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site assessment was conducted on November 3, 2017. Weather conditions were sunny, with a temperature of approximately 12 °C. Mr. Marek Moroz 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 assessment.

6.2 Specific Observations at the Phase I Property

Buildings and Structures

The subject site was occupied by a three-storey commercial building (Rideau Carleton Raceway and Hard Rock Café) with a slab on grade foundation, a one-storey residential dwelling, a backup generator building and a large asphaltic concrete parking lot.

The Rideau Carleton Raceway (RCR) building has a combination of flat tar and gravel style and rubber membrane roof. The building is finished with glass, precast concrete and metal siding.

The one-storey residential dwelling has a sloped shingle roof, is clad with vinyl siding and has a concrete block foundation with a single basement level.

A small slab-on-grade backup generator building, clad with metal siding, is located 15m north of the Rideau Carleton Raceway building.

Site Features

The subject site is primarily covered by a paved asphaltic concrete parking lot. The structures cover approximately ten (10) percent of the subject site. There is a grass covered field on the northeastern portion of the site and on the southwestern portion. A gravel parking area is located east of the residential dwelling. Landscaped areas are located along the laneways and near the two-storey commercial building. Properties adjacent to the subject site are approximately at grade with the subject site. Site drainage consists of natural runoff towards catch basins on the subject site or by infiltration in grass and gravel covered areas.

Below Ground Structures

Two wastewater holding tanks were observed on the subject site. The primary tank is located west of the backup generator building and was installed in 1999. The primary tank discharges to the municipal sewer system. The secondary tank is located on the southern portion of the site (adjacent to the RCR track) and is used as overflow. The secondary tank also discharges to the municipal sewer system. No below ground structures, aside from utilities observed, were found at the time of the site visit.

Potable Water Source

The subject property is currently municipally serviced. A drinking water well on the subject site supplies water for the stables and the fire suppression system.

Potential Environmental Concerns

Groundwater Monitoring Wells

No groundwater monitoring wells were identified on the subject site or within the Phase I study area.

Underground Utilities

Based on the presence of the commercial and residential buildings, electrical cables, sewers, natural gas and water utilities are expected on the subject site.

Ground Surface

The ground surface across the majority of the property consisted of an asphaltic concrete parking lot, several laneways, a gravel parking area and grass covered fields. No areas of stained soil or stressed vegetation were observed on the property. No standing water was observed on the subject site.

Railway Lines

No railway lines were observed on the subject site or within the Phase I ESA study area.

Unidentified Substances

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

Polychlorinated Biphenyls (PCBs) and Transformer Oil

A pad mounted transformer was observed on the subject site adjacent to the northeast corner of the RCR building. Several pole mounted transformers were observed on the southern portion of the site and along Albion Road. Based on the age of the on-site equipment, it would not contain PCBs. At the time of assessment, no leaks, staining/discolouration or dead grass beneath the electrical equipment was observed. The transformers are not considered to be an environmental concern at this time.

□ Waste Storage and Disposal

The site currently generates non-hazardous waste, recyclable materials and organic waste from the Rideau Carleton Raceway and the residential dwelling. A waste compactor (purchased in 2014) and recycling bins were observed north of the RCR building. Domestic non-hazardous waste is stored within the residential dwelling.

Interior Assessment

A general description of the interior of the Rideau Carleton Raceway and Hard Rock Café (RCR) building is as follows:

The building is currently occupied by a casino, an entertainment centre and several restaurants. Based on the findings of the historical research, the original building structure was constructed in 1962. In 1999 the building was renovated and expanded.

- □ The floors are finished with a combination of concrete, rubberized flooring, vinyl tile, ceramic tile, and carpet.
- □ The walls are composed of a combination of concrete, dry wall, concrete block, metal and glass.
- □ The ceilings consisted of a combination of metal decking, suspended ceiling tiles and drywall. Portions of the ceiling were sprayed with a fire-resistant insulation.
- Lighting throughout the building was observed to be a mix of incandescent and fluorescent fixtures.

The structure is heated and cooled via rooftop heating (natural gas) and cooling systems.

A general description of the interior of the residential dwelling is as follows:

- □ The floors consist of a combination of laminate, ceramic tile and carpet. The basement floor is primarily native sand.
- □ The walls are composed of a combination concrete block and wood panelling.
- The ceilings consisted of a wood decking, 30 x 30cm suspended ceiling tiles and wood panelling.
- Lighting throughout the building was observed to be a mix of incandescent and fluorescent fixtures.

The building is heated with a propane fired furnace.

Potentially Hazardous Building Products

□ Ozone Depleting Substances (ODSs)

Refrigerators, coolers, freezers, fire extinguishers and air conditioning units may be potential sources of ozone depleting substances (ODSs) on site. These appliances should be regularly serviced and maintained by certified contractors.

Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance or repair of suspected ODS containing appliances.

Lead-Based Paint

Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion (built in 1962) of the RCR building in August of 2015, prior to the disturbance or demolition of suspected designated substances and hazardous building materials.

Based on the age of the expanded portion (built in 1999) of the RCR building, lead-based would not have been used during construction.

Based on the age of the residential dwelling, lead-based paints may be present on painted surfaces. Painted surfaces were observed to be in good condition at the time of the site visit.

Polychlorinated Biphenyls (PCBs) and Transformer Oil

Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance or demolition of suspected PCB containing materials.

Based on the age of the expanded portion (built in 1999) of the RCR building, PCBs would not have been used during construction.

Several interior transformers were observed in an electrical room in the lower level of the RCR building. Based on conversations with the facility manager, PCBs are not present with the transformers. No stains or leaks were observed in the vicinity of the interior transformers. No concerns with respect to PCBs or transformer oil were identified on the subject property at the time of the site visit.

□ Asbestos Containing Materials (ACMs)

Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance or demolition of ACMs.

Based on the age of the expanded portion (built in 1999) of the RCR building, ACMs would not have been used during construction.

Based on the age of the residential dwelling (1962) ACM may be present within the building (suspended ceiling tiles). These materials were in good condition at the time of the site visit and do not pose an immediate environmental concern.

□ Mercury

Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance of potential mercury containing substances.

Other Potential Environmental Concerns

□ Storage Tanks

Two (2) aboveground fuel storage tanks (ASTs) were observed on the subject property. An exterior double-walled pad mounted 9,600L tank is located east of the back-up generator building. The exterior AST was observed to have been manufactured in 2014 and installed in 2015, according to the facility manager. An interior double walled 454L AST was observed in the maintenance room on the lower level of the RCR building within a concrete secondary containment bunker. The interior AST was installed in 1999, according to the facility manager. No cracks were observed in the concrete of the secondary containment bunker. No leaks or stains were observed in the vicinity of the ASTs at the time of the site visit. These ASTs are not considered to pose a concern to the subject site.

Based on observations made during the site visit, the residential dwelling was historically heated with an oil-fired furnace. The former AST was mounted on a concrete pad in the basement. No stains were observed in the location of the former AST. Vent and fill pipes have been removed and the building is currently heated with a propane-fired furnace. No concerns were identified with the former use of oil within the residential dwelling at the time of the site visit.

Hydraulic Equipment

Two (2) hydraulic elevators and four (4) hydraulic escalators (installed in 1999) were observed within the RCR building and one (1) waste compactor (installed in 2014) was observed on the north portion of the site. No leaks were observed with this equipment at the time of the site visit. Based on observations made during the site visit, the hydraulic equipment does not represent a concern to the subject site.

Wastewater Drainage

Waste water and floor drains were observed throughout the building and are expected to drain into the City of Ottawa sewer system. No standing water was observed in the drains. An underground wastewater holding tank is located north of the RCR building. No concerns were identified with wastewater drainage at the time of the site visit.

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 Vacant undeveloped land followed by Jenstar Road Paving;
- South Farmsteads and agricultural fields;
- East The Rideau Carleton Raceway track followed by stables and undeveloped land;
- West Albion Road followed by a farmstead and the Falcon Ridge Golf Club.

Five (5) above-ground fuel storage tanks (ASTs) were observed at Jenstar Road Paving, located at 4709 Albion Road, 75m north of the subject site. As previously mentioned, based on aerial photographs, this paving facility has been operational since 2008. Based on the limited years of operation and on the cross-gradient location of the PCA with respect to the subject site, the paving facility is not considered to represent an area of environmental concern (APEC) on the subject site.

Property use within the Phase I study area is shown on Drawing PE4149-2 - Surrounding Land Use Plan.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

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

Table 2 – Land Use History							
Time Period	Land Use	Potentially Contaminating Activities	Areas of Potential Environmental Concern				
1945 to1962	Farmstead	None	None				
Commercial (Restaurants1962 to Presentand Casino) andResidential		None	None				

Potentially Contaminating Activities (PCAs)

As previously mentioned, five (5) above-ground fuel storage tanks (ASTs) were observed at Jenstar Road Paving, located at 4709 Albion Road, 75m north of the subject site. Based on the limited years of operation (since approximately 2008) and on the cross-gradient location of the PCA with respect to the subject site, the paving facility is not considered to represent an area of environmental concern (APEC) on the subject site.

A former private automotive service garage was identified at 4792 Albion Road, 50m west of the subject site. As previously mentioned, based on a previous engineering report conducted by Paterson, this PCA is not considered to have had the potential to have impacted the subject site.

Areas of Potential Environmental Concern (APEC)

As detailed above, the identified PCAs do not represent APECs on the subject property.

Contaminants of Potential Concern (CPC)

No contaminants of potential concern were identified, since no APECs were identified on the subject site.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on information from the Geological Survey of Canada, bedrock beneath the site area consists of dolostone of the Oxford Formation. It was reported that surficial geology consists of glaciofluvial deposits, with a drift thickness of 10-25m. Hydrogeological conditions are considered to mimic the topographic setting; as a result, groundwater is expected to flow northeast.

Contaminants of Potential Concern

As per Section 7.1 of this report, no CPCs were identified on the subject site.

Existing Buildings and Structures

The subject site is occupied by a three-storey commercial building which is used by the Rideau Carleton Raceway and Hard Café (RCR), a backup generator building and a residential dwelling. The RCR and backup generator buildings have slab-on-grade foundations. The RCR building has a combination of flat tar and gravel style and rubber membrane roof. The building is finished with metal siding, preformed concrete panels and glass. The residential dwelling has a sloped shingle roof and is clad with vinyl siding. The backup generator building is clad with metal siding.

Water Bodies

A man-made pond is located 75m east of the subject site. No other water bodies are located within the Phase I study area.

Areas of Natural Significance

There are no areas of natural and scientific interest on the subject property or within the study area

Drinking 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 October 30, 2017. The search returned one (1) drinking water well record on the subject site, drilled in December of 1957. Based on conversations with the Rideau Carleton Raceway facility manager, the well is only used to supply water to the stables and to fill the tank for the fire suppression system.

The search returned four (4) drinking water well records within the study area. Water well records within the search radius have been included in Appendix 2.

Neighbouring Land Use

Neighbouring land use in the Phase I study area consists of commercial, residential and institutional. Land use is shown on Drawing PE4149-2 Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, Potentially Contaminating Activities identified within the Phase I ESA study area are not considered to represent Areas of Potential Environmental Concern 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 the off-site PCAs identified within the Phase I study area do not constitute APECs with respect to the subject site. A variety of independent sources were consulted as part of this assessment, and 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

A Phase I Environmental Site Assessment (Phase I-ESA) was carried out for the western portion of 4837 Albion Road, in the City of Ottawa, Ontario. The purpose of this Phase I – Environmental Site Assessment 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 properties.

Based on historical searches, the property was developed as early as 1945 with a farmstead. In 1962, the site was redeveloped with a two-storey residential dwelling, the Rideau Carleton Raceway (RCR) and an asphaltic concrete parking lot. No environmental concerns were identified with respect to the historical use of the subject site.

Surrounding properties historically consisted of residential properties, agricultural fields and undeveloped treed lands. One potentially contaminating activity was identified within the Phase I-ESA study area. This potentially contaminating activity was not considered to represent an area of potential environmental concern on the subject site.

Following the historical review, a site visit was conducted. The site is currently occupied by a three-storey commercial structure (Rideau Carleton Raceway), which features a casino and several restaurants; a one-storey residential dwelling; an asphaltic concrete parking lot and grass fields. Neighbouring properties to the east were identified as the RCR tracks and stables. Properties to the west are occupied by farmsteads and a golf club. Properties to the north consist of vacant lands and a combination of residential and commercial buildings. Properties to the south are occupied by a farmstead and agricultural fields. One (1) PCA was identified 70m north of the subject site, however, it is not considered to represent an area of potential environmental concern on the subject site.

Conclusion

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

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 the Rideau Carleton Raceway and Hard Rock Café. Permission and notification from the above noted party and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Marek Moroz, G.I.T.



Mark S. D'Arcy, P.Eng.



Report Distribution:

- The Stirling Group (3 copies)
- Paterson Group (1 copy)

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. The City of Ottawa Historical Land Use Inventory. Intera Technologies Limited Report "Mapping and Assessment of Former Industrial Sites, City of Ottawa", 1988. The City of Ottawa geoOttawa website.

Local Information Sources

Plan of Survey - Annis, O'Sullivan, Vollebekk Ltd., 2013. 'Phase I - Environmental Site Assessment, 5786 Fernbank Road, Ottawa, Ontario', prepared by Houle Chevrier Engineering, March 31, 2015 Personal Interviews.

Public Information Sources

Google Earth. Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

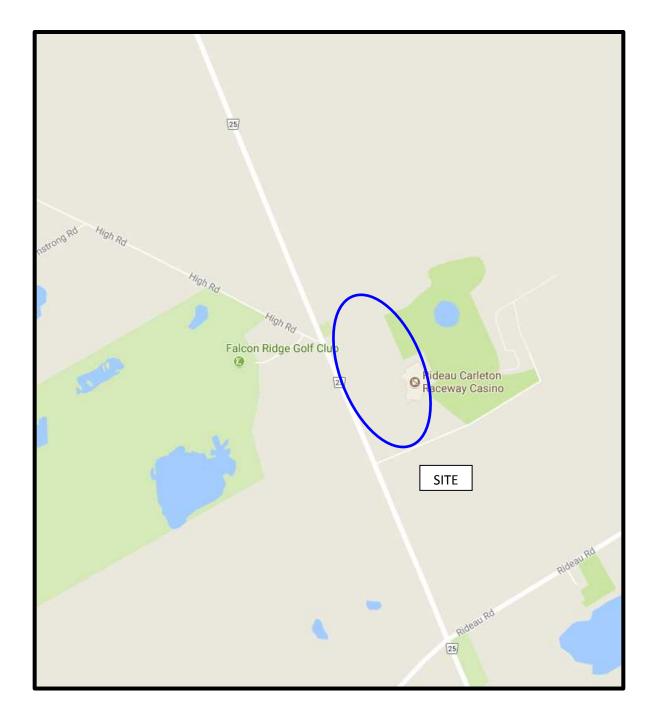
FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4149-1 – SITE PLAN

DRAWING PE4149-2 – SURROUNDING LAND USE PLAN

patersongroup

FIGURE 1 KEY PLAN



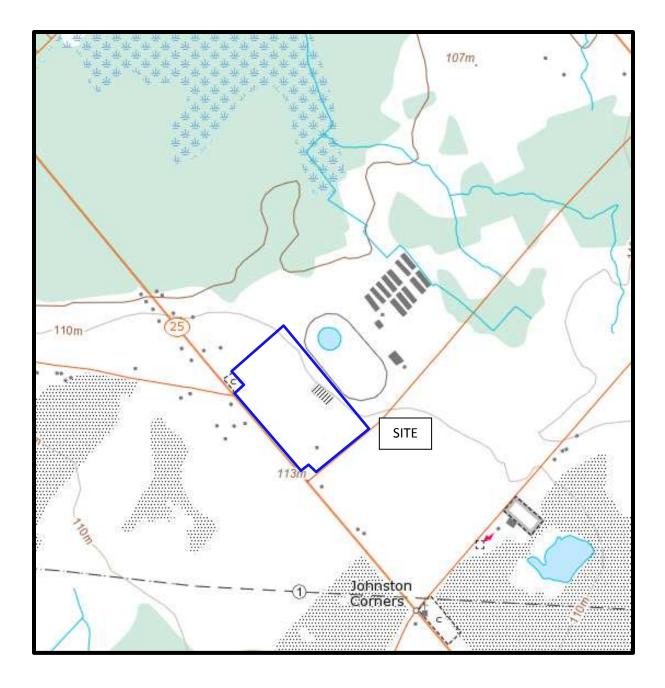
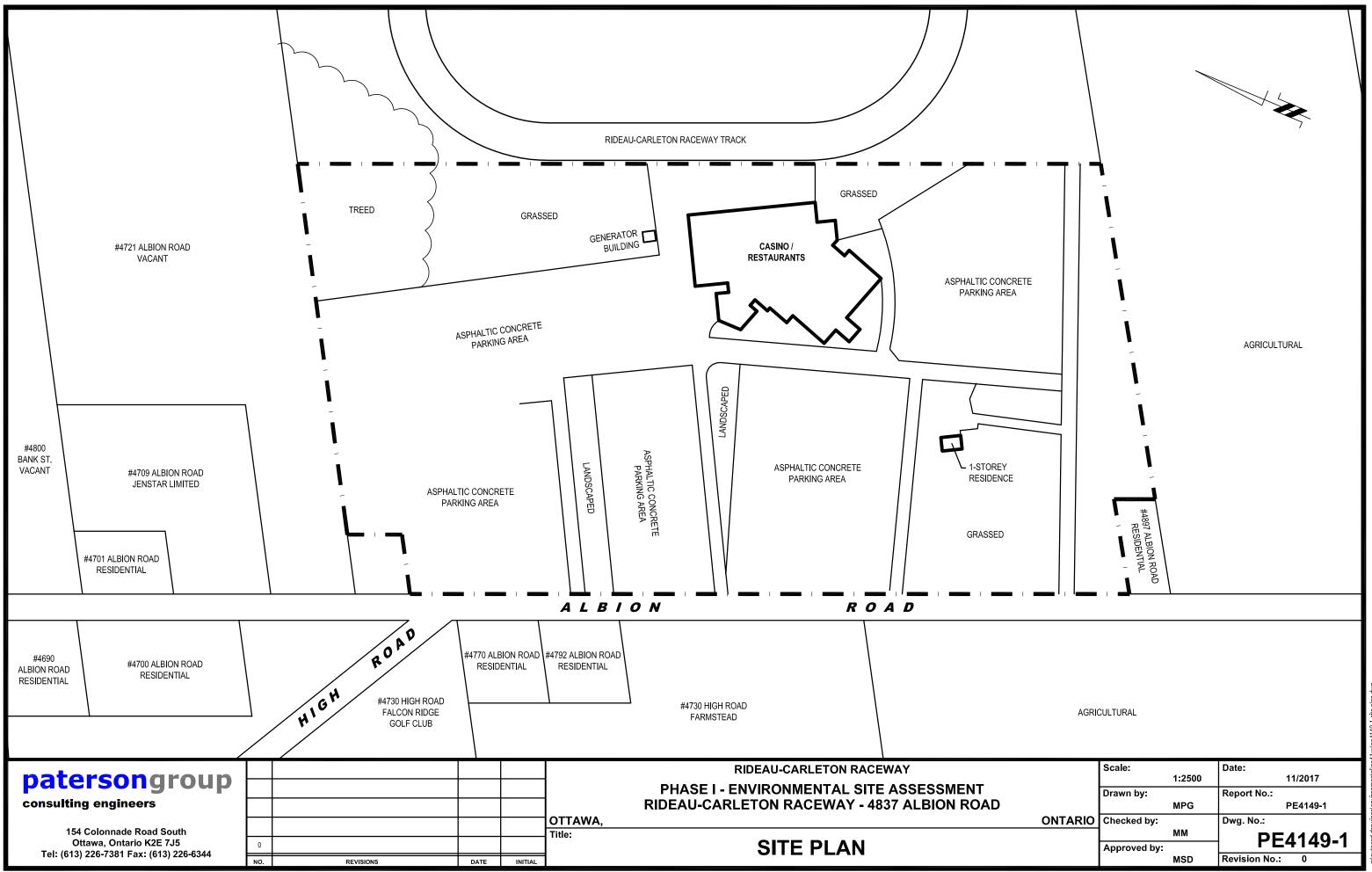
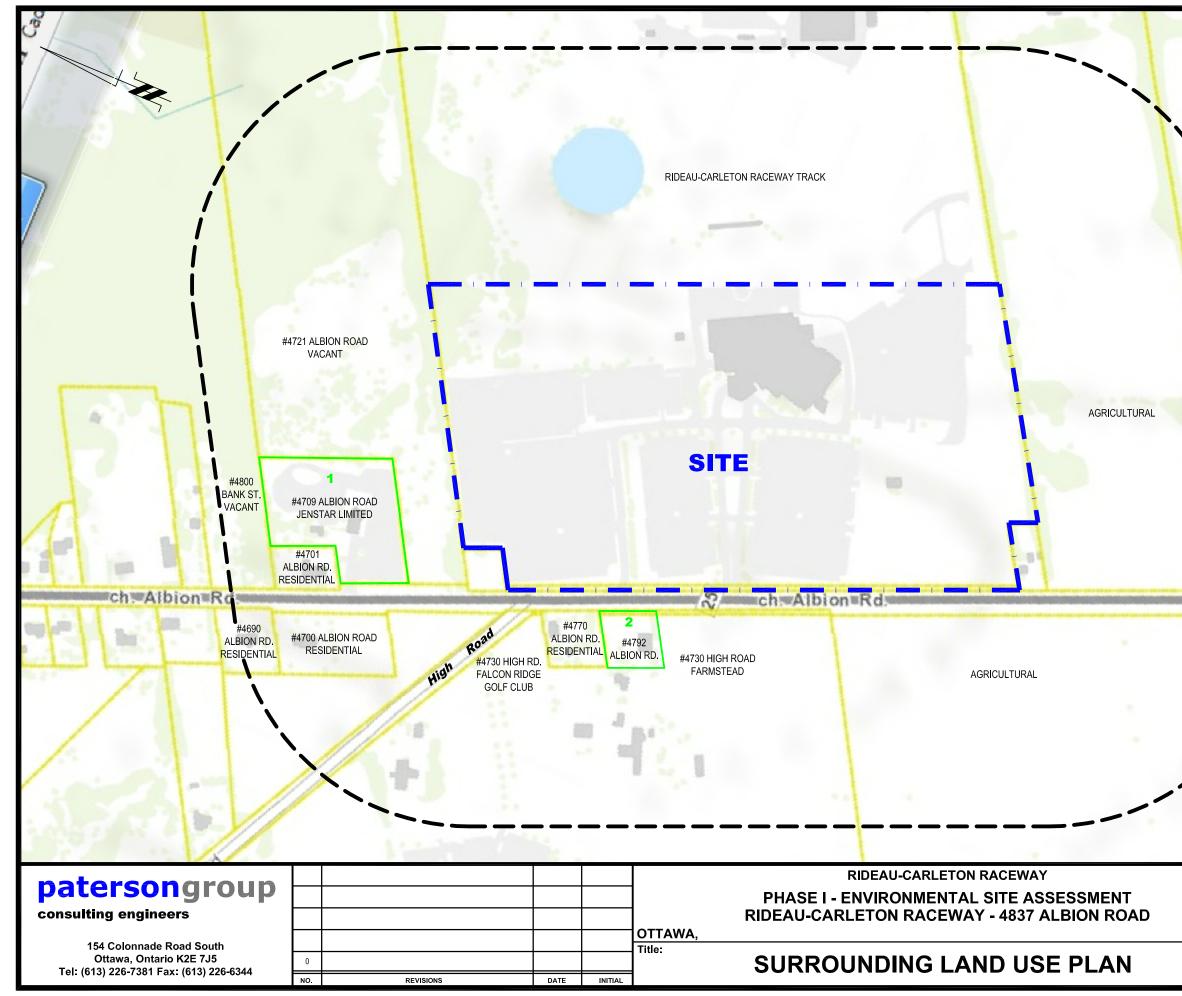


FIGURE 2 TOPOGRAPHIC MAP

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		MSD	Revision No.: 0



PHASE I ENVIRONMENTAL SITE ASSESSMENT STUDY AREA

POTENTIALLY CONTAMINATING ACTIVITY:

1. 4709 ALBION ROAD - JENSTAR LIMITED, ABOVEGROUND STORAGE TANKS

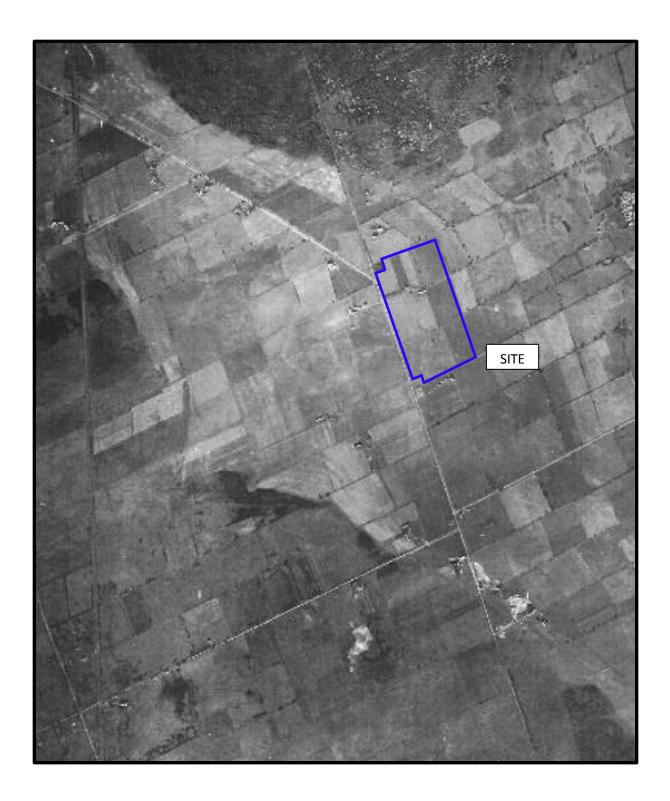
2. 4792 ALBION ROAD - FORMER PRIVATE AUTOMOTIVE SERVICE GARAGE

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	Approved by:		FL4143-Z
		MSD	Revision No.: 0

APPENDIX 1

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



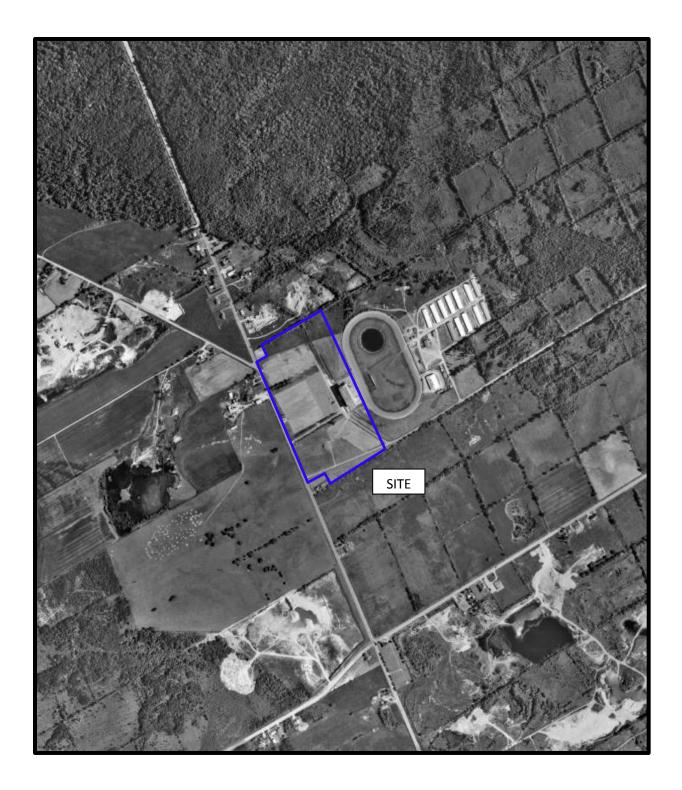
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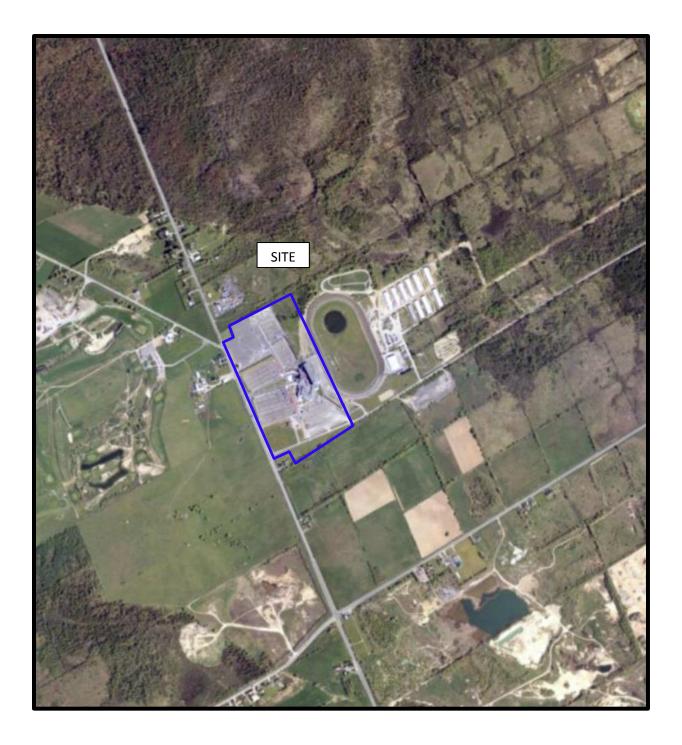
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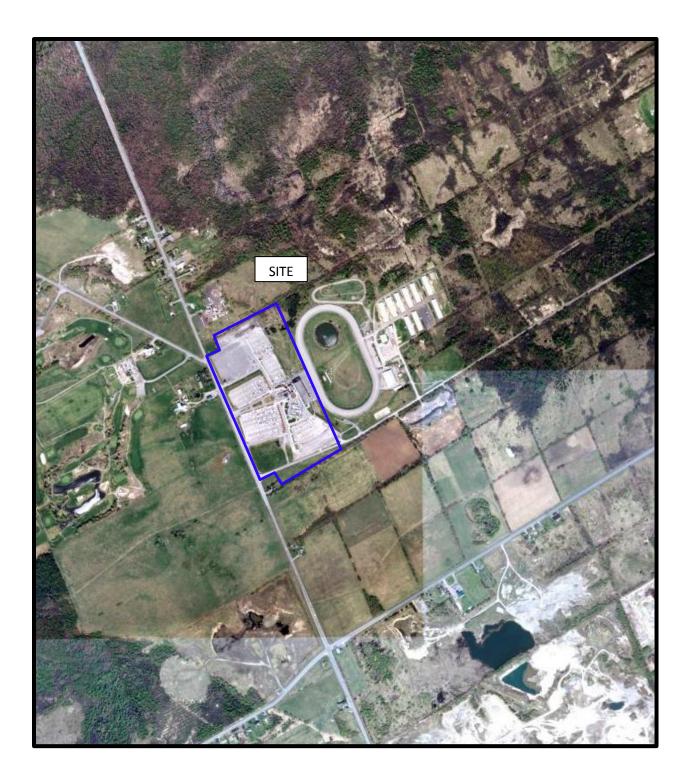
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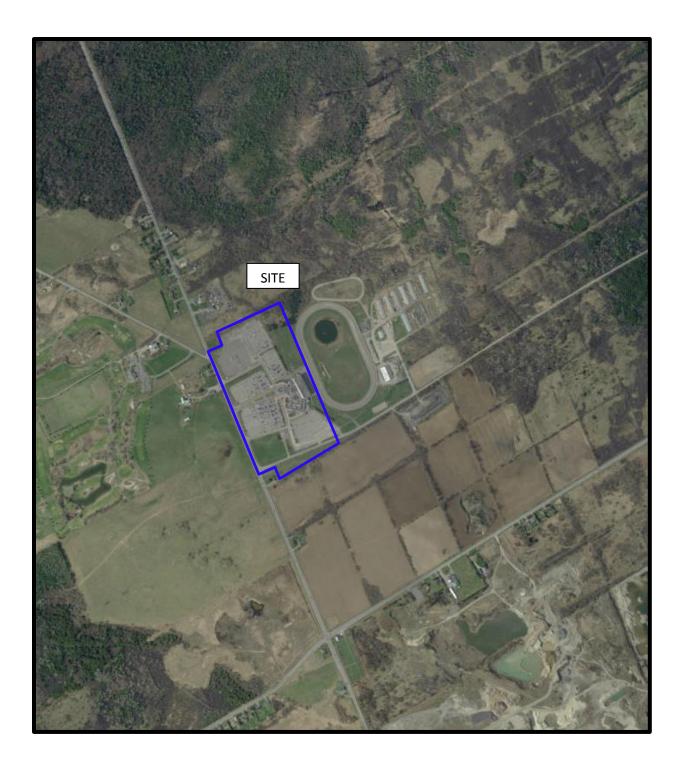
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AERIAL PHOTOGRAPH 2002



AERIAL PHOTOGRAPH 2008



AERIAL PHOTOGRAPH 2014

Site Photographs

PE4149

4837 Albion Road, Ottawa, ON

November 3, 2017



Photograph 1: View of the southern portion of the site, facing northeast. Photograph illustrates a gravel parking lot in the area of the residential dwelling and the Rideau Carleton Raceway building.



Photograph 2: View from the northern portion of the subject site, facing northwest. Photograph illustrates an asphaltic concrete parking lot.

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Site Photographs

PE4149

4837 Albion Road, Ottawa, ON

November 3, 2017



Photograph 3: View of the northern portion of the subject site, facing north. Photograph illustrates a grass field, the backup generator building and the location of the wastewater holding tank.



Photograph 4: Photograph of the interior of the Rideau Carleton Raceway in the lower level of the building.

Site Photographs

PE4149

4837 Albion Road, Ottawa, ON

November 3, 2017



Photograph 5: Photograph of interior transformers in the electrical room on the lower level of the Rideau Carleton Raceway building.



Photograph 6: Photograph of the one-story residential dwelling located on the subject site. Photograph is taken facing west.

APPENDIX 2

MOECC FREEDOM OF INFORMATION SEARCH

WATER WELL RECORDS

TSSA CORRESPONDENCE



Ministry of Environment and Energy

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			
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Malek Moloz	on request No.			
Paterson Group Inc. 154 Colonnade Road				
Ottown ON K2E 7 IS				
Email address: MMoroz@patersongroup.ca	ACCT CHQ VISA/MC CASH			
Telephone Fax Nos Signature Print Mame of Requester				
	CNR □ ER □ NOR □ SWR □ WCR SAC □ IEB □ EAA □ EMR □ SWA			
Request Parameters				
Aunicipal Address / Lot. Concession, Geographic Township (Municipal address essential for cities, towns or regions)				
4837 Albion Road, Ottawa, Ontario Part of Lot 23 and 24: Concession 4, Township of Gloucester, City of Ottawa. PIN - 0432-80500				
Present Property Owner(s) and Date(s) of Ownership				
The Sterling Group				
revious Property Owner(s) and Date(s) of Ownership				
Various private owners - Commercial Property				
Present Previous Tenant(s) (if applicable)				
Rideau Carleton Raceway & Hard Rock Cafe				
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Marek Moroz

From:	Marek Moroz
Sent:	October-26-17 1:39 PM
То:	'Public Information Services'
Subject:	TSSA Records Search, PE4149 - Ottawa, ON

Good afternoon,

Could you please conduct a search of your records for underground/aboveground storage tanks, historical spills and other incidents/infractions for the following addresses for properties located in Ottawa (Gloucester), Ontario:

4690, 4701, 4709, 4770, 4837, 4877, 4953 and 4959 Albion Road;

4730 High Road;

and 4910 Bank Street

Thank you very much,

Marek

Marek Moroz, G.I.T.

patersongroup

solution oriented engineering 60 years serving our clients

154 Colonnade Road South Ottawa, Ontario, K2E 7J5 Cell: (613) 229-9822 Tel: (613) 226-7381 Ext. 248 Fax: (613) 226-6344 Email: <u>MMoroz@patersongroup.ca</u> This electronic message and any attached documents are intended only for the named recipients.

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Mark S. D'Arcy, P. Eng.

patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

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

EDUCATION

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

MEMBERSHIPS

Ottawa Geotechnical Group Professional Engineers of Ontario

EXPERIENCE

1991 to Present **Paterson Group Inc.** Associate and Senior Environmental/Geotechnical Engineer Environmental and Geotechnical Division Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island Agricultural Supply Facilities - Eastern Ontario Laboratory Facility – Edmonton (Alberta) Ottawa International Airport - Contaminant Migration Study - Ottawa Richmond Road Reconstruction - Ottawa Billings Hurdman Interconnect - Ottawa Bank Street Reconstruction - Ottawa Environmental Review - Various Laboratories across Canada - CFIA Dwyer Hill Training Centre - Ottawa Nortel Networks Environmental Monitoring - Carling Campus - Ottawa Remediation Program - Block D Lands - Kingston Investigation of former landfill sites - City of Ottawa Record of Site Condition for Railway Lands - North Bay Commercial Properties - Guelph and Brampton Brownfields Remediation - Alcan Site - Kingston Montreal Road Reconstruction - Ottawa Appleford Street Residential Development - Ottawa Remediation Program - Ottawa Train Yards Remediation Program - Bayshore and Heron Gate Gladstone Avenue Reconstruction - Ottawa Somerset Avenue West Reconstruction - Ottawa

Marek Moroz, B.Sc. G.I.T.

patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

Environmental Consultant

EDUCATION

Algonquin College, Graduate Certificate, 2017 Environmental Management and Assessment

University of Ottawa, 2012 Specialization in Geology with Minor in Spanish

MEMBERSHIPS

Ottawa Geotechnical Group Association of Professional Geoscientists of Ontario

EXPERIENCE

2017 to Present: **Paterson Group Inc.** Consulting Engineers Geotechnical and Environmental Division Environmental Consultant

2016 to 2017 Geological Survey of Canada Federal Research Organization in Earth Sciences Canada Groundwater Program Physical Scientist

2012 to 2015 KGHM International International Mining Company Geologist and Project Manager

SELECT LIST OF PROJECTS

Contaminated Soil and Groundwater Sampling - Various sites - Eastern Ontario Surcharge and Settlement Surveys - Ottawa, ON Regional Groundwater Assessment and Research – Lake Simcoe Region Geological Compilation and 3D Modelling – Franke Mine, Chile Resource Investigation and Mineral Exploration - Rosita, Nicaragua