

Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Phase I - Environmental Site Assessment

Vacant Land
301 Palladium Drive
Ottawa, Ontario

Prepared For

Moana Realty Ltd.

Paterson Group Inc.

Consulting Engineers
28 Concourse Gate - Unit 1
Ottawa (Nepean), Ontario
Canada K2E 7T7

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

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Report: PE2482-1

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EXECUTIVE SUMMARY

Assessment

A Phase I - Environmental Site Assessment was carried out for the property located at 301 Palladium Drive, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the site and adjacent properties and identify any environmental concerns with the potential to impact the subject property.

The historical research indicated that the subject site has been vacant prior to 1971 to present. Neighbouring properties were historically used for agricultural purposes or were vacant prior to being developed with present day commercial buildings starting circa late 1980's. The past use of the site and the neighbouring lands were not considered to pose a concern to the subject property.

Following the historical review, a site visit was conducted. The subject site is currently vacant and covered with grass and some mature trees. Neighbouring properties are used for commercial purposes. No significant concerns were noted with the current use of the subject site or immediately adjacent lands.

Conclusion

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

1.0 INTRODUCTION

At the request of Mr. Jeff Gibson of Moana Realty Ltd., Paterson Group (Paterson) conducted a Phase I - Environmental Site Assessment (ESA) of the vacant property located at 301 Palladium Drive, in the City of Ottawa, Ontario.

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

2.0 SITE INFORMATION

Address: 301 Palladium Drive, Ottawa, Ontario.

Location: Located on the south side of Palladium Drive, west of Terry Fox Drive, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan in the Appendix for the site location.

Legal Description: Parts of Lot 1, Concession 2 in the Geographic Township of March; Parts 4, 5, 10 and 11 on Registered Plan 4R-7282, Less Parts 2, 3 and 4 on 4R-11260, in the City of Ottawa.

Latitude and Longitude: 45° 18' 02" N, 75° 54' 29" W

Site Description:

Configuration: Irregular.

Zoning: IL5 H(22) - Light Industrial Zone.

Current Use: The subject site is currently vacant.

Services: The subject site is located in a municipally serviced area.

3.0 SCOPE OF WORK

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

- Investigate the existing conditions present at the subject site by carrying out a field study and historical review in general accordance with CSA Z768-01.
- Present the results of our findings in a comprehensive report.
- Provide a preliminary environmental site evaluation based on our findings.
- Provide preliminary remediation recommendations and further investigative work if contamination is encountered or suspected.

4.0 METHOD OF INVESTIGATION

4.1 Historical Research

The methodology for the Phase I - Environmental Site Assessment program was carried out in two segments. The first consisted of a historical review which included a brief research of the past use of the site. This portion of the program was carried out by Paterson personnel from the Environmental Division. The following is a list of the key information sources reviewed by our firm.

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).
- PCB Waste Storage Site Inventory.

Provincial Records

- MOE document titled "Waste Disposal Site Inventory in Ontario".
- MOE Brownfields Environmental Site Registry.
- Office of Technical Standards and Safety Authority, Fuels Safety Branch.

Municipal Records

- The Corporation of the City of Ottawa.
- City of Ottawa document entitled "Old Landfill Management Strategy; Phase 1 - Identification of Sites, City of Ottawa, Ontario"; finalised October 2004.

Local Information Sources

- Previous Environmental Reports.

4.2 Field Assessment

The second segment of the Phase I - ESA consisted of a site visit which included a cursory assessment of the environmental conditions of the subject property. The field assessment was carried out on November 4, 2011, by personnel from the Environmental Division.

As part of the field assessment, the site was inspected for signs of the following:

- Evidence of previous or existing fuel storage tanks.
- On-site use or storage of hazardous materials.
- On-site handling or disposal of liquid or solid waste materials.
- Above-ground piping systems, including pumps, valves and joints.
- Truck or rail loading or unloading areas.
- Electrical conduits, abandoned pipelines or pumping stations.
- Remnants of old buildings.
- Signs of surficial contamination (ie. staining, distressed vegetation).
- Unnaturally discoloured, ponded or flowing waters.
- Surficial drainage, wetlands, natural waterways or watercourses through the properties (i.e. ditches, creeks, ponds, poor drainage).
- Any evidence of potable water supply wells or groundwater monitoring wells (such as leak detection monitoring wells for underground storage tank systems, or abandoned systems).
- Any abnormal odours associated with the site, whether from on-site or off-site sources.
- The presence of any recent soil disturbances such as soil removal, filling, tilling, grading, etc.
- Asbestos containing materials (ACMs).
- Urea formaldehyde foam insulation (UFFI).
- PCB containing products.
- Ozone depleting substances (ODS).
- Lead-containing materials.
- Current use of neighbouring properties.

5.0 FINDINGS OF THE ENVIRONMENTAL ASSESSMENT

5.1 Historical Review

Air Photo Research

Historical air photos from the National Air Photo Library were reviewed. Based on the review, the following observations have been made:

- 1971 The site appears to be vacant and overgrown with vegetation. What appears to be a drainage ditch is present to the west of the site. A cluster of mature trees is present to the southeast of the site. A farmstead and associated agricultural land is present to the northeast of the site. The properties to the south and west of the site appear to be used for agricultural purposes.
- 1979 The farmstead to the northeast of the site appears to have been cleared. Terry Fox Drive has been constructed to the east of the site. Preliminary grading is apparent further east of the site. Highway 417 and the Terry Fox Drive interchange have been constructed further north of the site. No other significant changes have been made to the subject site or neighbouring properties.
- 1983 No significant changes had been made to the subject site or neighbouring properties.
- 1990 Palladium Drive has been constructed to the north of the site. Neighbouring properties to the east, southeast, northwest and further southwest of the site have been developed with what appear to be the present day commercial buildings. The properties to the east of Terry Fox Drive have been developed with residential dwellings. No other significant changes had been made to the subject site or neighbouring properties.
- 1992 Increased residential development is apparent to the east of Terry Fox Drive. No other significant changes had been made to the subject site or neighbouring properties.
- 1994 No significant changes had been made to the subject site or neighbouring properties.

- 2002 Neighbouring properties to the north and southeast of the site have been developed with the present day commercial buildings. No other significant changes had been made to the subject site or neighbouring properties.
- 2008 (City of Ottawa Website) No significant changes had been made to the subject site or neighbouring properties.

Laser copies of some of the aerial photographs reviewed are included in the Appendix of this report.

National Archives

City directories from 1992 through 2010, were reviewed at the national archives. The site was not listed in the city directories. The neighbouring properties have been listed for commercial purposes since 1992. No environmental concerns were identified with the historic use of the surrounding properties in the review of city directories.

Fire Insurance Plans (FIPs) are not available for the area of the subject site.

Natural Resources Canada (NRCAN)

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 of Sandstone of the Nepean Formation. Based on the maps, the thickness of overburden ranges from 5 to 10 m and consists of Nearshore Marine Sediments of Beach Formations.

PCB Inventory

A search of national PCB waste storage sites was conducted. A PCB waste storage site was identified at 100 Maple Grove Road, approximately 85 m southeast of the site. This PCB storage site was registered to Kanata Hydro and was listed as a minor storage site. It is expected that the Hydro Corporation would have used best management practices to store registered PCB waste. Furthermore, PCBs have a low mobility in the subsurface environment and the aforementioned storage site is located a significant distance from the subject site. The presence of this PCB storage site is not expected to have impacted the subject land.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto, was contacted electronically on November 2, 2011 to inquire about current and former underground storage tanks, spills and incidents for the subject site and neighbouring properties. There are no underground storage tanks (USTs) recorded in the TSSA registry for the subject site or neighbouring properties.

Ontario Ministry of Environment (MOE)

The Ontario Ministry of Environment document entitled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. No active or closed waste disposal sites were identified in the vicinity of the subject site.

A search of the MOE Brownfields environmental site registry was conducted as part of this assessment. No record of site conditions (RSC) were listed in the data base for the subject site or neighbouring properties within a 1 km radius.

City of Ottawa Old Landfill Document

The document prepared by Golder Associates entitled "Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa", was reviewed. No former landfills were identified within 1 km of the subject property.

Other Engineering Reports

Paterson has conducted various environmental assessments in the vicinity of the subject property. A review of our files did not indicate any environmental concerns with respect to the subject land.

5.2 Exterior Assessment

Site

The entire site is vacant and is covered with grass and some mature trees. Site drainage consists primarily of infiltration. The site topography is sloped downward to the south-southwest, while the regional topography slopes down to the southwest. A topographical low was observed near the south-central portion of the site. The current site features are illustrated in the site photographs in the Appendix of this report.

Potential Environmental Concerns

Fuels and Chemical Storage

There were no vent or fill pipes or signs of existing or former underground storage tanks (USTs) or aboveground storage tanks (ASTs) observed on the exterior of the subject site. There were no hazardous chemicals, spills or stains observed on the exterior of the property at the time of the site inspection.

Fill

No evidence of significant fill material was observed on the subject site. The subject site was generally at grade with the neighbouring properties and adjacent roadways.

Waste Management

No waste is currently being produced on site, nor was any waste observed.

Polychlorinated Biphenyls (PCBs)

Concrete pad mounted ground box transformers were observed on the commercial properties south of the laneway, further south of the site. No leakage was observed from these units. No concerns were identified on the site with respect to PCBs.

Wastewater Discharges

No wastewater is currently generated or disposed of on site. A catch basin was observed on the northeast portion of the site, which serves as a stormwater management control for the adjacent parking lot to the east.

5.3 Adjacent Properties

Land use adjacent to the subject site was as follows:

- North - Palladium Drive followed by Country Inn and Suites;
- East - Multi-tenant commercial office building followed by Terry Fox Drive;
- South - Multi-tenant commercial office building (southeast) and Curtis Wright Controls Inc. commercial building (southwest) followed by Hydro Ottawa buildings;
- West - Palladium Drive followed by Palladium Dental / Physiotherapy office building.

None of the immediately adjacent properties and neighbouring properties are considered to pose a significant concern to the subject site. Current land use adjacent to the subject property is illustrated on Drawing No. PE2482-1 - Site Plan in the appendix.

6.0 ASSESSMENT AND CONCLUSION

6.1 Assessment

A Phase I - Environmental Site Assessment was carried out for the property located at 301 Palladium Drive, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the site and adjacent properties and identify any environmental concerns with the potential to impact the subject property.

The historical research indicated that the subject site has been vacant prior to 1971 to present. Neighbouring properties were historically used for agricultural purposes or were vacant prior to being developed with present day commercial buildings starting circa late 1980's. The past use of the site and the neighbouring lands were not considered to pose a concern to the subject property.

Following the historical review, a site visit was conducted. The subject site is currently vacant and covered with grass and some mature trees. Neighbouring properties are used for commercial purposes. No significant concerns were noted with the current use of the subject site or immediately adjacent lands.

6.2 Conclusion

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

7.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with the agreed scope-of-work and 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 Moana Realty Ltd. Permission and notification from Moana Realty Ltd. and this firm will be required to release this report to any other party.

Paterson Group Inc.



Luke Lopers, B.A.Sc.



Mark D'Arcy, P.Eng



Report Distribution:

- Moana Realty Ltd. (3 copies and 1 PDF copy)
- Paterson Group Inc. (1 copy)

APPENDIX

SITE PHOTOGRAPHS

AERIAL PHOTOGRAPHS

FIGURE 1 - KEY PLAN

DRAWING NO. PE2482-1 - SITE PLAN

Site Photographs

PE2482

301 Palladium Drive, Ottawa, ON

November 4, 2011



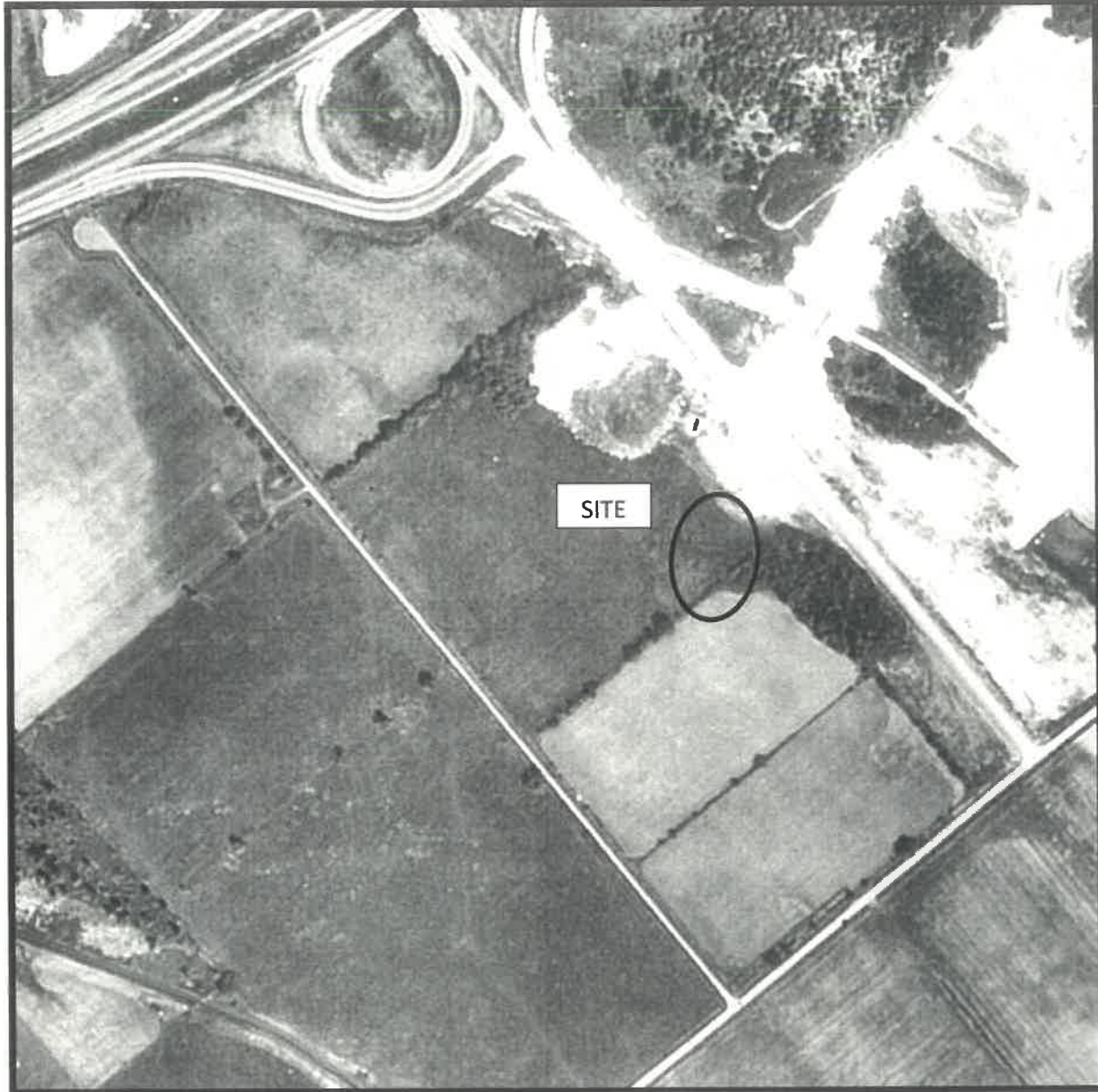
Photograph 1: View of the site looking north. Photograph illustrates on-site and regional topography which slopes to the south-southeast.



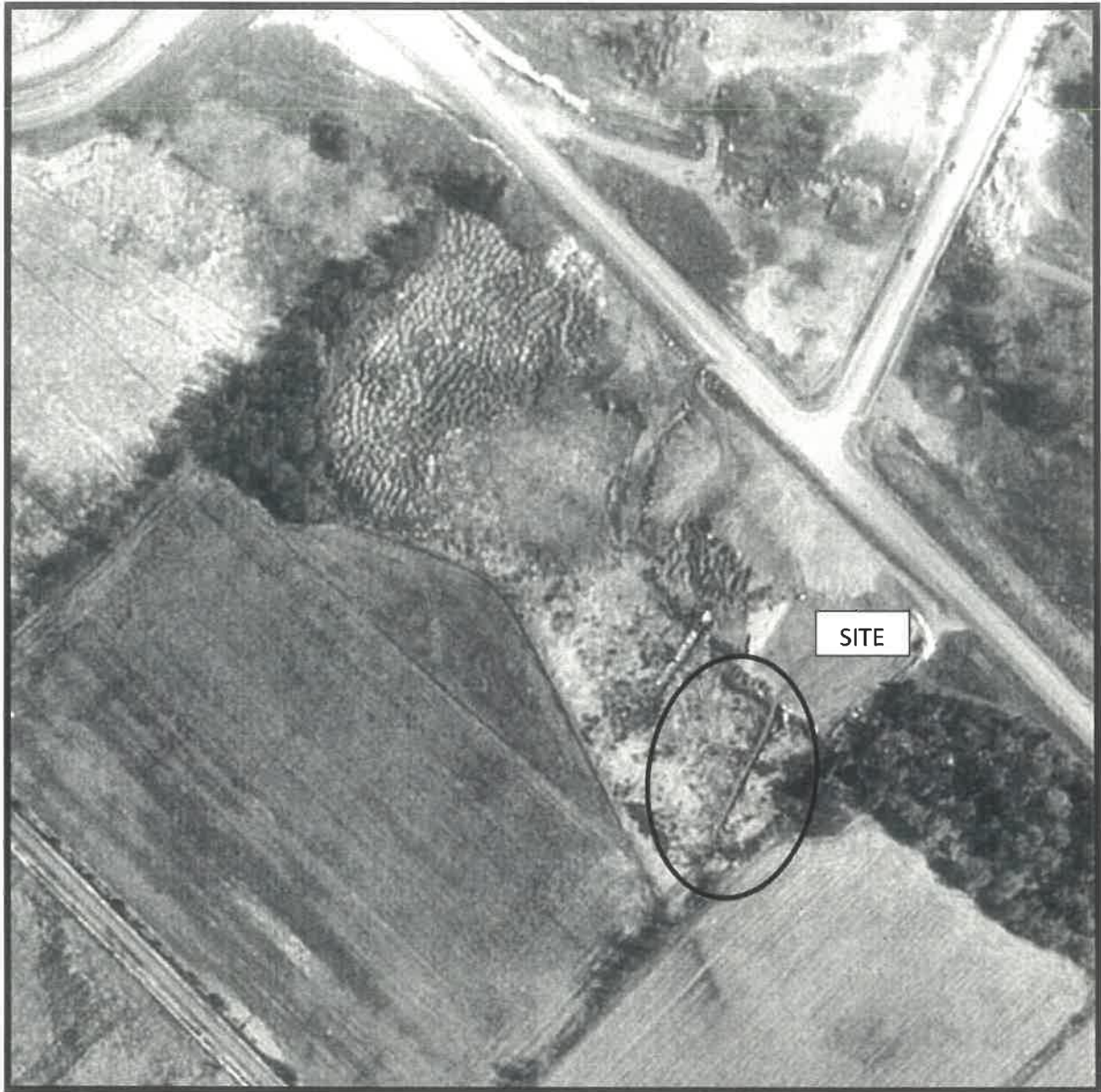
Photograph 2: View of the site, looking south. Photograph illustrates mature trees in the centre of the property.



AERIAL PHOTOGRAPH
1971



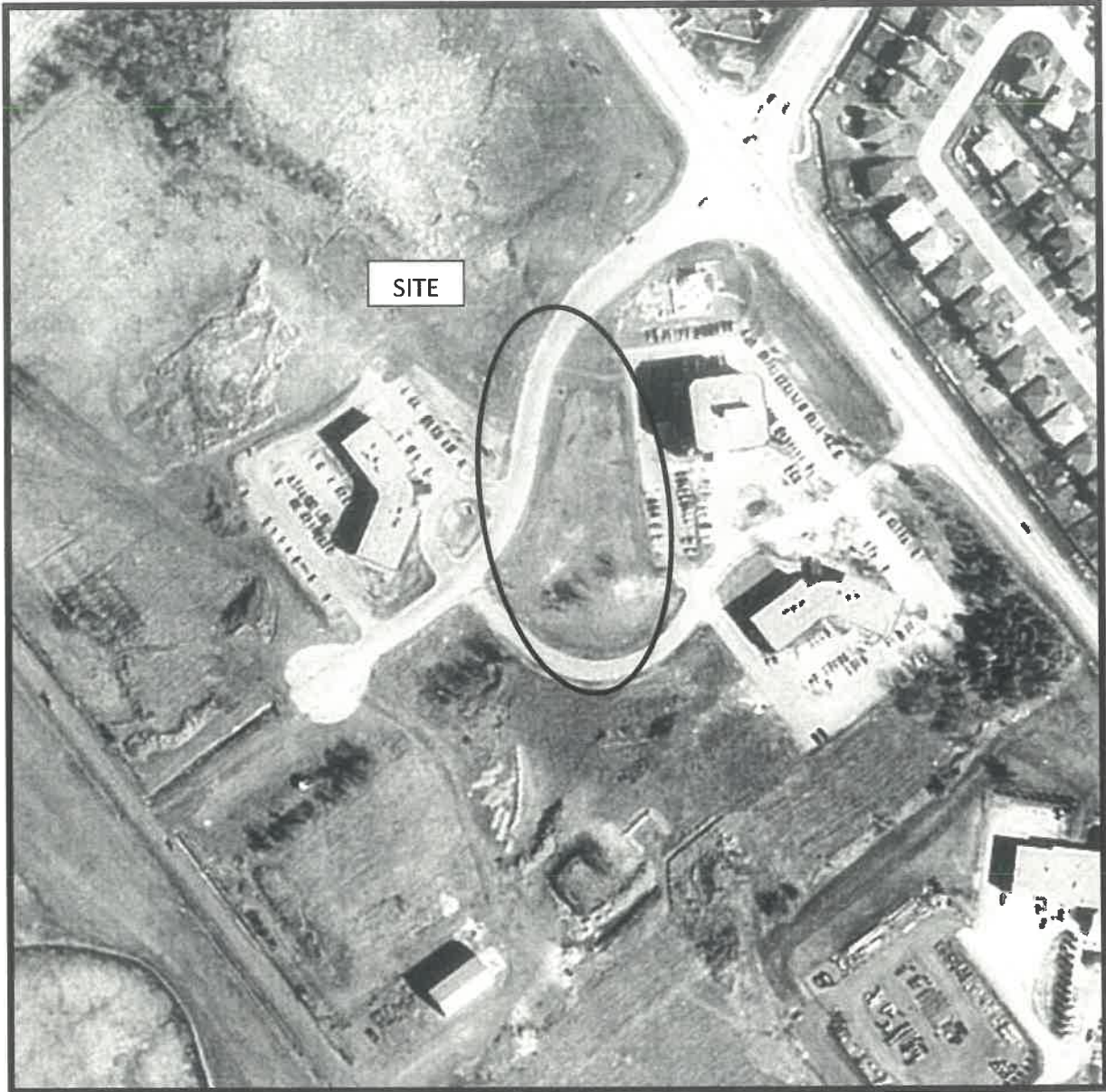
AERIAL PHOTOGRAPH
1979



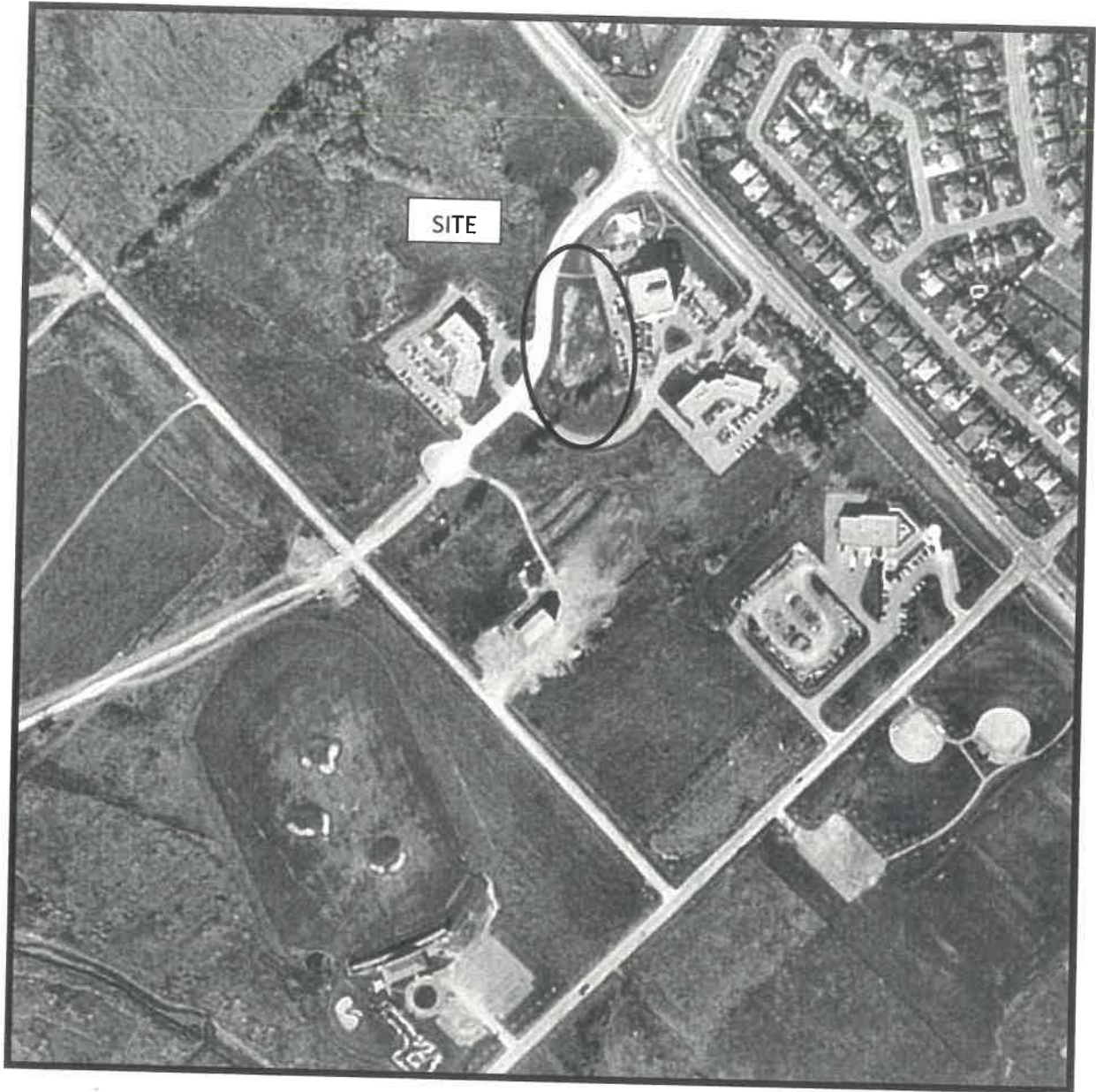
AERIAL PHOTOGRAPH
1983



AERIAL PHOTOGRAPH
1990



AERIAL PHOTOGRAPH
1992



AERIAL PHOTOGRAPH
1994

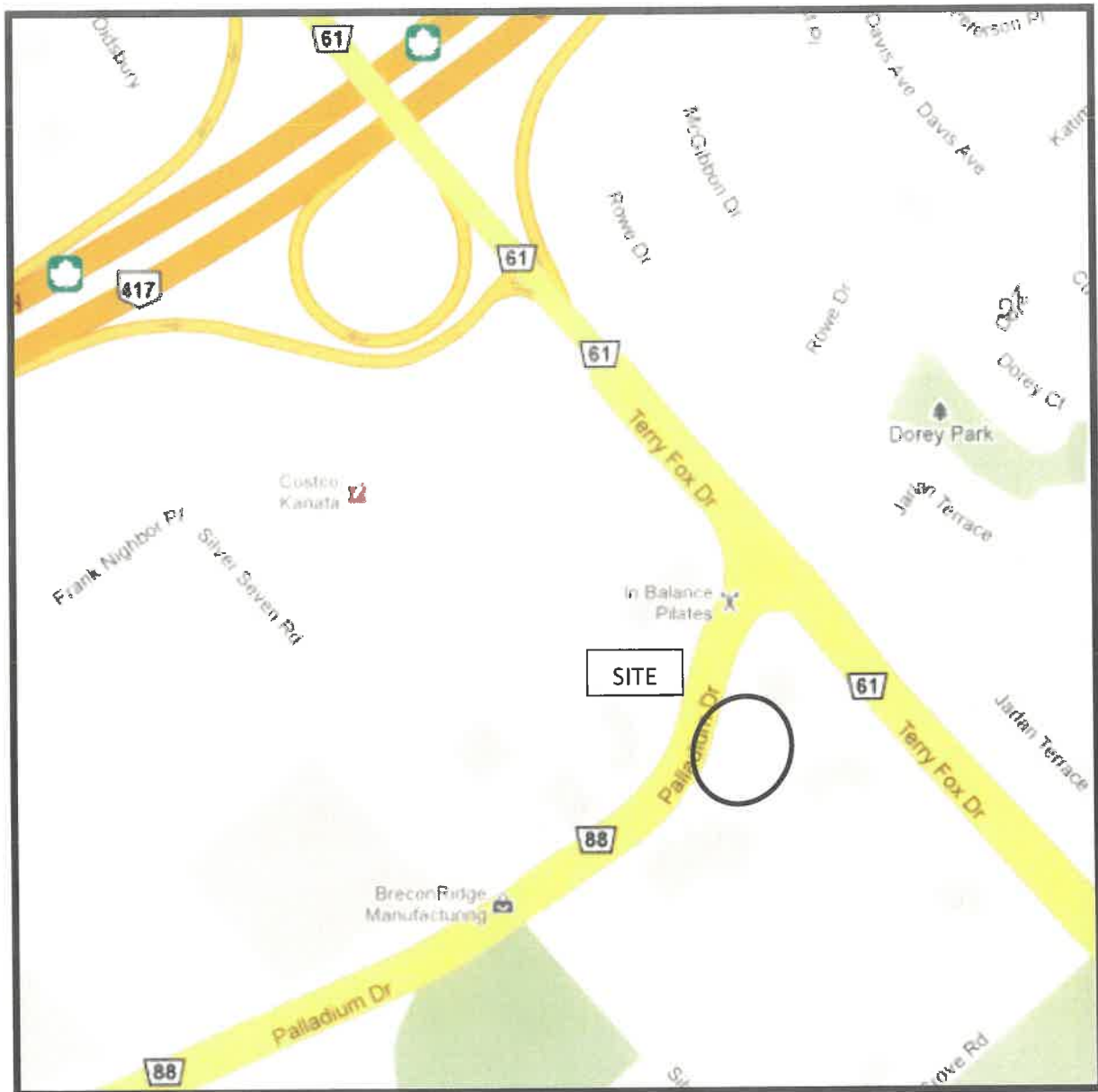
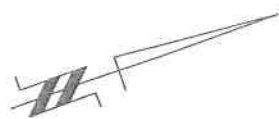


FIGURE 1
KEY PLAN

#308 PALLADIUM DRIVE
PHYSIOTHERAPY
PALLADIUM DENTAL

#578 TERRY FOX DRIVE
COUNTRY INN & SUITES

PALLADIUM DRIVE



○ LIGHT POST (LP)

○ FIRE HYDRANT

CATCH BASIN

○ LP

VACANT / GRASS

○ FIRE HYDRANT

ASPHALT

LANEWAY

○ LP

○ LP

○ LP

#580 TERRY FOX DRIVE
MULTI-TENANT COMMERCIAL
OFFICE BUILDING

#333 PALLADIUM DRIVE
CURTIS WRIGHT CONTROLS INC.

#600 TERRY FOX DRIVE
MULTI-TENANT COMMERCIAL
OFFICE BUILDING

TERRY FOX DRIVE

paterson group

consulting engineers

28 Concourse Gate, Unit 1, Ottawa, Ontario K2E 7T7

Scale: 1:500

Des.: LAL

Dwn: MPG

Chkd: MSD

MOANA REALTY LTD.

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
301 PALLADIUM DRIVE

OTTAWA,

ONTARIO

SITE PLAN

Dwg. No.

PE2482-1

Report No.: PE2482-1

Date: 11/2011