

**Tree Conservation Report  
5536 Manotick Main Street, Manotick  
City of Ottawa**

**Revision: 0 (Final)**

**Prepared for:  
Royal LePage Team Realty  
24 Lansdowne Avenue  
Carleton Place, ON  
K7C 2T8**

**Prepared by:**



**Geofirma**  
Engineering Ltd


1 Raymond St., Suite 200  
Ottawa, Ontario K1R 1A2  
Tel: (613) 232-2525  
Fax: (613) 232-7149

[www.geofirma.com](http://www.geofirma.com)

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**April 12, 2018**

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Client:	Royal LePage Team Realty	
Project Number:	18-216-1	
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Prepared by:	Drew Paulusse	
Reviewed by:	Taylor Warrington	
Approved by:	 Drew Paulusse	

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Purpose.....	1
1.2	Definitions.....	1
<b>2</b>	<b>METHODOLOGY .....</b>	<b>1</b>
<b>3</b>	<b>RESULTS.....</b>	<b>2</b>
3.1	Existing Conditions .....	2
3.2	Tree Inventory Summary.....	2
<b>4</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>4</b>
4.1	Tree Conservation Recommendations .....	4
4.2	Recommended Mitigation Measures.....	4
<b>5</b>	<b>CLOSURE.....</b>	<b>5</b>
<b>6</b>	<b>REFERENCES.....</b>	<b>6</b>

## LIST OF TABLES

Table 3.1	Summary of Natural Features Present On-site or Adjacent to Site .....	2
Table 3.2	Tree Inventory Summary .....	3

## LIST OF APPENDICES

APPENDIX A	Report Figures
APPENDIX B	Site Photographs

## 1 INTRODUCTION

Geofirma Engineering Ltd. was retained by Royal LePage Team Realty to complete a Tree Conservation Report in support of a development application for 5536 Manotick Main Street in the City of Ottawa (PIN 045870049). The site location is provided on Figure A.1 in Appendix A.

### 1.1 Purpose

The property owner is seeking to redevelop a 0.15 hectare commercial property and in accordance with the City of Ottawa's Urban Tree Conservation By-law (No. 2009-200), a Tree Conservation Report (TCR) is required to identify trees to be retained and protected under future development scenarios and, where feasible, identify opportunities to offset the loss of trees that cannot be retained or to contribute to the City's forest cover targets. The proposed redevelopment concept calls for the demolition of the existing 300 m<sup>2</sup> commercial building and the construction of a new, approximately 417 m<sup>2</sup> commercial building and associated landscaping. The existing site layout is provided on Figure A.2 while the development concept is provided on Figure A.3, in Appendix A.

This report has been prepared in accordance with the City of Ottawa guidelines for the completion of Tree Conservation Reports as summarized in Section 4.7.2 of the City Official Plan (2003).

### 1.2 Definitions

Terms and abbreviations used throughout the remainder of this report are summarized below.

*Diameter at Breast Height (DBH)*, is defined as the diameter of the tree trunk measured at a height of 1.2 metres above ground surface for trees of 15 centimeters in diameter and greater, or, at a height of 0.3 meters above ground surface for trees of less than 15 cm diameter.

*Critical Root Zone (CRZ)*, is defined as the ground area within a circumference around the tree trunk calculated as 10 centimetres from the trunk of the tree for every one centimeter of tree trunk diameter at breast height.

*Distinctive Tree*, a distinctive tree within the City of Ottawa is defined as any tree with a trunk that is greater than 50 centimeters in diameter at breast height.

## 2 METHODOLOGY

To complete this TCR, digital color air photos of the site available from GeoOttawa were reviewed from 1976 to 2017 to identify natural features, including historical trees, present on-site and in the vicinity of the site.

In addition to the completion of a desktop review of historical air photos a site visit was conducted on April 9, 2018, to enumerate and identify all trees on-site with a DBH greater than 10 cm. The site visit was conducted by Drew Paulusse, a biologist and member of Geofirma's ecological services team.

Photographs taken during the April 9, 2018, site visit are provided in Appendix B.

### 3 RESULTS

#### 3.1 Existing Conditions

This site is currently occupied by an approximately 300 m<sup>2</sup> (0.03 ha) building which occupies approximately 20% of the 0.15 ha property. Other existing features on the property include a small elevated patio deck structure in the north corner of the property and a softscaped area along portions of the south and southwest property boundaries. The remainder of the site is comprised entirely of asphalt driveways, providing access to Main Street and Ann Street and a partially paved parking area. Impermeable surfaces comprise approximately 93% of the 0.15 ha property. Several trees are present on the property, including mature streetscape plantings and immature opportunistic individuals growing from gaps within the pavement along the property lines, a summary of all trees on-site is provided in Section 3.2 below.

The vicinity of the site is characterized by main street commercial retail properties and commercial service properties. The nearest significant natural feature is the Rideau River located 230m to the northeast, there are no other natural environmental features in the vicinity of the project, as summarized in Table 3.1 below.

**Table 3.1 Summary of Natural Features Present On-site or Adjacent to Site**

Natural Feature	Presence On-site or Adjacent
Surface water or wetlands present	None
Steep slopes, valleys or escarpments	None
Urban Natural Features or Natural Environment Areas	None
Significant woodlands	None
Greenspace linkages	None
High Quality specimen trees	None
Rare plant communities or unique environmental features	None
Presence of species at risk	None

Based on a review of historical air photos the site has undergone no significant alteration since 1976 with the exception of additional parking area provided to the rear of the property sometime between 2008 and 2011, and the removal of two large trees on the southwest property line sometime between 2011 and 2015.

#### 3.2 Tree Inventory Summary

A Geofirma biologist conducted a tree inventory on April 9, 2018, while tree buds were beginning to flower. Trees on-site were identified, enumerated and assessed for visual signs of distress and disease. Table 3.2 below provides a summary of a tree specimens on-site whose DBH was greater than 10 cm, similarly, all trees with a DBH greater than 10 cm are illustrated on Figure A.2 and A.3. In general the tree community assemblage can be described as containing a few mature streetscape cultivars and several immature opportunistic trees.

**Table 3.2 Tree Inventory Summary**

Tree	Common Name	Scientific Name	Diameter (m DBH)	Condition	Retainable or Conflict	Origin
#1	Freemans' Maple	<i>Acer x freemani</i>	0.88	Healthy	Conflict	Cultivar
#2	American Elm	<i>Ulmus americana</i>	0.30 & 0.26	Multi-stem (2), heavily pruned, healthy	Conflict	Native
#3	Manitoba Maple	<i>Acer negundo</i>	0.19, 0.17, 0.16 & 0.08	Multi-stem (4), healthy	Retainable	Non-native
#4	Black Walnut	<i>Juglans nigra</i>	0.12	Healthy	Retainable	Native
#5	Black Walnut	<i>Juglans nigra</i>	0.34	Healthy	Retainable	Native
#6	Manitoba Maple	<i>Acer negundo</i>	0.16	Heavily pruned, healthy	Retainable, possibly located on adjacent property	Non-native
#7	Freeman's Maple	<i>Acer x freemani</i>	0.21	Healthy	Retainable, possibly located on adjacent property	Cultivar
#8	Freeman's Maple	<i>Acer x freemani</i>	0.78	Quarter of crown lacking buds	Retainable, tree located on property line	Cultivar

Trees #1, and #8 are considered to be distinctive trees as per City of Ottawa By-law No. 2009-200, due to their DBH being greater than 50 cm.

None of the eight trees identified on-site are listed under the provincial Endangered Species Act.

Photographs of all tree identified on-site during the field investigation are provided in Appendix B.

On-site, trees #3, #4, #5, and #6 are assumed to occur due to a lack of maintenance over a number of years until such time that trees became too large to be easily removed. Although not in conflict with the proposed redevelopment, these trees currently encroach on the nearby fence and are not well situated for long term retention. Removal of such trees would not be considered a significant environmental concern and would not significantly alter the existing landscape of the site as none of the trees represent exceptional specimens and have no conservation value.

## 4 CONCLUSIONS AND RECOMMENDATIONS

Based a review of the information summarized above in Section 3.2 and the proposed redevelopment concept illustrated on Figure A.3, the following conclusions are provided;

- Tree #1 and tree #2 are not retainable under the proposed redevelopment concept;
- Tree #1 and tree #8 are considered distinctive trees as per City of Ottawa By-law No. 2009-200 and will require a City permit prior to removal, if necessary;
- All eight trees identified on-site are typical of an urban environment and are in relatively healthy conditions; and
- None of the eight trees present on-site represent exceptional native tree specimens, nor do they contribute in a significant manner to the existing natural landscape or provide any conservation value.

### 4.1 Tree Conservation Recommendations

Opportunities exist along the south and southwest property line to offset the loss of tree #1 and tree #2 which are not retainable under the current redevelopment concept. Offsetting efforts should focus on the use of native, non-invasive species with the exception of ash, elm and Manitoba maples. Planting locations and specific planting requirements should be confirmed in a Landscaping Plan developed for the site.

### 4.2 Recommended Mitigation Measures

The following mitigation measures and 'best practice' recommendations are provided by Geofirma in order to minimize or eliminate potential negative impacts to trees identified in Table 3.2 as retainable. Construction contractors shall apply the following measures below to prevent damages to trees identified to be retained in the redevelopment plan for the site;

- If the existing pavement surface around trees to be retained is going to be removed than temporary fencing should be installed to delineate the CRZ of each tree;
- If trees to be removed overlap with the CRZ of trees to be retained, cut roots at the edge of the CRZ and grind down stumps after tree removal, do not pull out stumps. If roots must be cut, roots 20 mm or larger should be cut at right angles with clean, sharp horticultural tools without tearing, crushing, or pulling;
- Do not place any material or equipment within the CRZ of any tree to be retained;
- Do not attach any signs, notices, or posters to any tree to be retained;
- Do not damage the root system, trunk, or branches of any tree to be retained;
- Ensure that exhaust fumes from all equipment are directed away from any tree canopy; and
- Tree removal shall occur outside the key breeding bird period (typically April 15 to August 15) as identified by Environment Canada for the protection of migratory birds and to avoid contravention of the Migratory Bird Convention Act. If vegetation clearing activities must take place inside of the aforementioned timing window than a nest survey shall be conducted by a qualified professional.

## 5 CLOSURE

This report has been prepared for the exclusive use of Royal LePage Team Realty using a methodology for conducting a Tree Conservation Reports that is acceptable within the profession.

The undersigned certify that the information contained within this Tree Conservation Report is accurate and complete, to the best of their knowledge.

Geofirma Engineering Ltd. has exercised professional judgment in collecting and analyzing the information and in formulating recommendations based on the results of the site investigation. The mandate at Geofirma is to perform the given tasks within guidelines prescribed by the client and with the quality and due diligence expected within the profession. No other warranty or representation expressed or implied, as to the accuracy of the information or recommendations is included or intended in this report.

Geofirma Engineering Ltd. hereby disclaims any liability or responsibility to any person or party, other than the party to whom this report is addressed, for any loss, damage, expense, fines or penalties which may arise or result from the use of any information or recommendations contained in this report by any other party. Any use of this report constitutes acceptance of the limits of Geofirma's liability. Geofirma's liability extends only to its client and only for the total amount of fees received from the client for this specific project and not to other parties who may obtain this report.

Respectfully submitted,

Geofirma Engineering Ltd.



Drew Paulusse, B.Sc.  
Senior Biologist



## 6 REFERENCES

Ottawa, City of (Ottawa). 2003, City of Ottawa Official Plan. May.

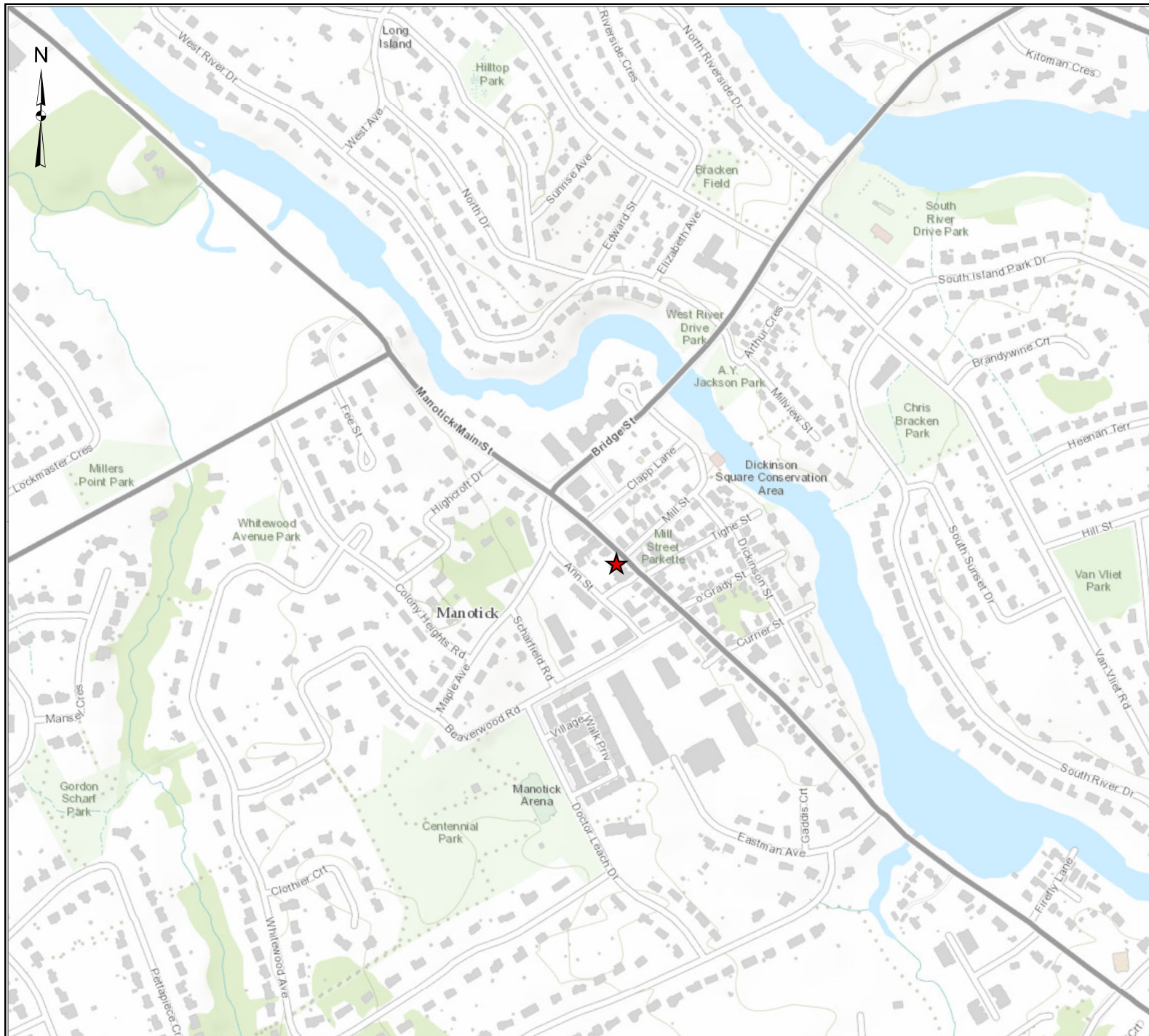
## **APPENDIX A**

### **Report Figures**

Figure A.1 – Site Location

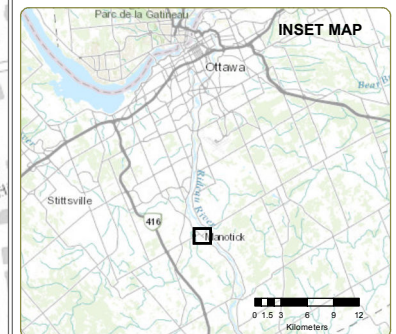
Figure A.2 – Site Layout

Figure A.3 – Proposed Development

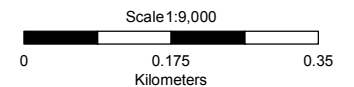


## Legend

★ Site Location



**Figure A.1**  
**Site Location**



Coordinate System: NAD 1983 UTM Zone 18N  
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User

PROJECT No. 18-216-1

PROJECT

Tree Conservation Report  
5536 Manotick Main Street  
Manotick, City of Ottawa

DESIGN: NMP  
CAD/GIS: TEW  
CHECK: DMP  
REV: 0

DATE: 11/04/2018








## Legend

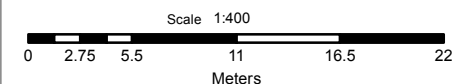
 Property Boundary

 Tree and Diameter at Breast Height (DBH) in meters

- 1 - Freeman's Maple
- 2 - American Elm
- 3 - Manitoba Maple
- 4 - Black Walnut
- 5 - Black Walnut
- 6 - Manitoba Maple
- 7 - Freeman's Maple
- 8 - Freeman's Maple

**Note:**  
Trees with multiple DBH listed represent trees with multiple stems

**Figure A.2  
Site Layout**



Coordinate System: NAD 1983 UTM Zone 18N  
Service Layer Credits: MNR, Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community  
Source: GeoOttawa

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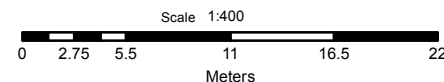


## Legend

-  Property Boundary
-  Proposed Development Footprint
-  Tree and Diameter at Breast Height (DBH) in meters
  - 1 - Freeman's Maple
  - 2 - American Elm
  - 3 - Manitoba Maple
  - 4 - Black Walnut
  - 5 - Black Walnut
  - 6 - Manitoba Maple
  - 7 - Freeman's Maple
  - 8 - Freeman's Maple

Note:  
Trees with multiple DBH listed represent trees with multiple stems

**Figure A.3**  
**Proposed Development**



Coordinate System: NAD 1983 UTM Zone 18N  
Service Layer Credits: MNR, Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community  
Source: GeoOttawa

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## **APPENDIX B**

**Site Photographs (April 9, 2018)**





**Tree #1 – Freeman's Maple**





**Tree #2 – American Elm**





**Tree #4 – Black Walnut**





**Tree #5 – Black Walnut**



**Tree #6 – Manitoba Maple**





**Tree #7 – Freeman's Maple (foreground)**



**Tree #8 – Freeman's Maple**