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3194 Jockvale Road Development Tree Conservation Report



December 2018
Prepared for Richcraft Homes Inc.

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Richcraft Homes Inc.
2280 St. Laurent Blvd, Suite 201
Ottawa, ON, K1G 4K1

December 11th, 2018

C/O: Jennifer Murray – Project Management and Land Development

CC: Kevin Yemm, Richcraft - VP Land Development

RE: Tree Conservation Report for the 3194 Jockvale Road Development

1.0 INTRODUCTION AND BACKGROUND

McKinley Environmental Solutions (MES) was retained by Richcraft Homes Inc. to complete a Tree Conservation Report (TCR) to support the Draft Plan of Subdivision and Zoning By-Law Amendment applications for the proposed development at 3194 Jockvale Road, located in Barrhaven (Ottawa), Ontario (the Site) (Figure 1). The Legal Land Description of the Site is Part of Lot 15, Concession 3 (Rideau Front), Geographic Township of Nepean (Ottawa) (PIN 045951677).

2.0 SITE OVERVIEW AND PROJECT DESCRIPTION

The Site is approximately 10.6 ha in size and is proposed to be developed in future for mixed use (commercial and residential). In future, the realigned Jockvale Road is planned to pass through the Site in a north-south direction. Historically the Burnett Drain passed through the Site in an approximately north-south direction. However, the upstream segments of the Burnett Drain were intercepted and decommissioned by development to the north of the Site, thereby eliminating the upstream water flow that historically would have passed through the Site. This has left the portions of the Burnett Drain within the Site abandoned. During the Site visit (October 24th, 2018), no surface water was observed anywhere within the abandoned portions of the Burnett Drain within the Site. As discussed below, there are no significant natural heritage features within the Site. As such, no areas of natural habitat retention are shown within the future development.

The Site includes an undeveloped parcel that was previously farmed. The condition of the Site reflects historic and recent agricultural usage, with the majority of the Site being dominated by open agricultural fields (with topsoil recently stripped) and several small hedgerows and tree stands. The Site occurs within the Barrhaven Town Center. A developed commercial complex is located to the north. Greenbank Road is located to the east, beyond which is another commercial complex. The

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area south of the Site includes a golf driving range. The area west of the Site includes the Kenney-Burnett Municipal stormwater management ponds, beyond which are existing developed residential subdivisions. There are therefore no significant natural heritage features found adjacent to the Site.



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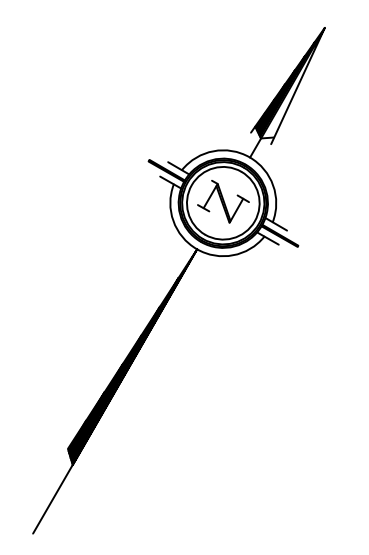
FIGURE 1: SITE OVERVIEW

3194 Jockvale Road Development
Tree Conservation Report



Please Note: This is not a legal land survey. All dimensions and locations are shown as approximate.

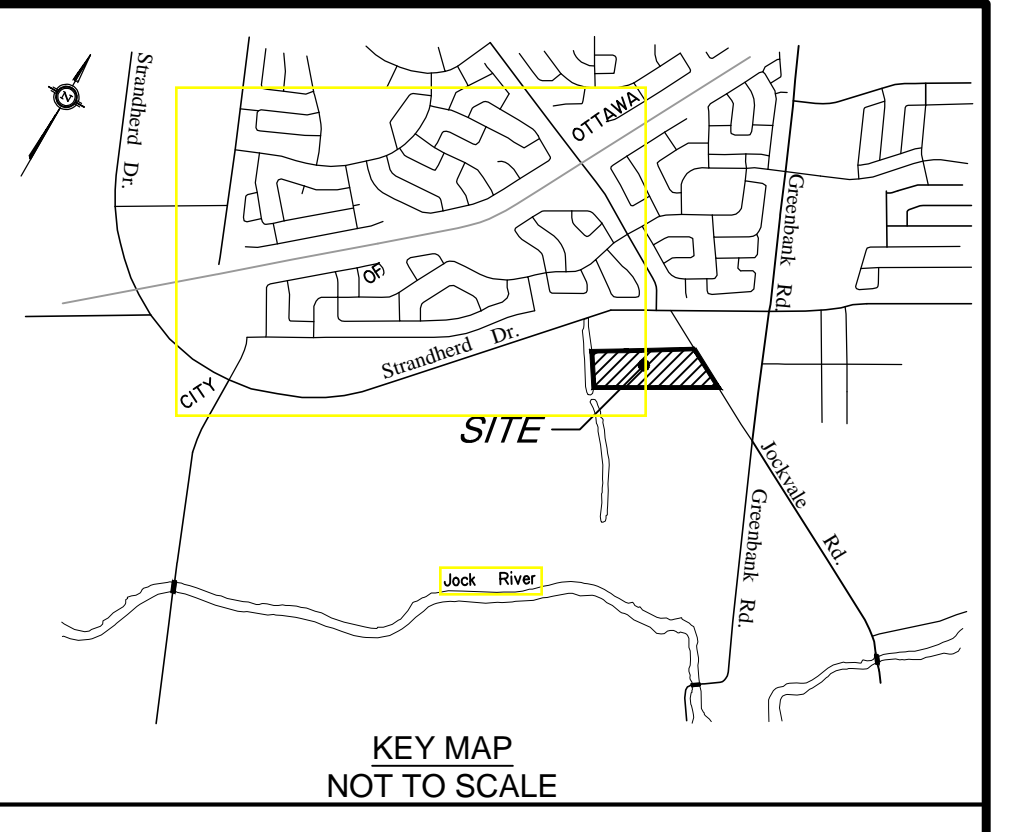
 - Study Area



SUBJECT TO THE CONDITIONS, IF ANY, SET FORTH IN OUR LETTER DATED _____

THIS DRAFT PLAN IS APPROVED BY THE CITY OF OTTAWA UNDER SECTION 51 OF THE PLANNING ACT. THIS _____ DAY OF _____

DON HERVEYER, MCIP RPP, ACTING MANAGER
DEVELOPMENT REVIEW, URBAN SERVICES
PLANNING AND GROWTH MANAGEMENT DEPARTMENT
PLANNING AND INFRASTRUCTURE PORTFOLIO
CITY OF OTTAWA



**DRAFT PLAN OF SUBDIVISION OF
PART OF LOT 15
CONCESSION 3 (RIDEAU FRONT)**
Geographic Township of Nepean
CITY OF OTTAWA

Prepared by Annis, O'Sullivan, Vollebek Ltd.

Scale 1 : 750
30 22.5 15 7.5 0 15 30 Metres

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

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
The boundaries of the lands to be subdivided and their relationship to adjoining lands have been accurately and correctly shown.

Date _____
Andre Roy
ONTARIO LAND SURVEYOR

OWNER'S CERTIFICATE

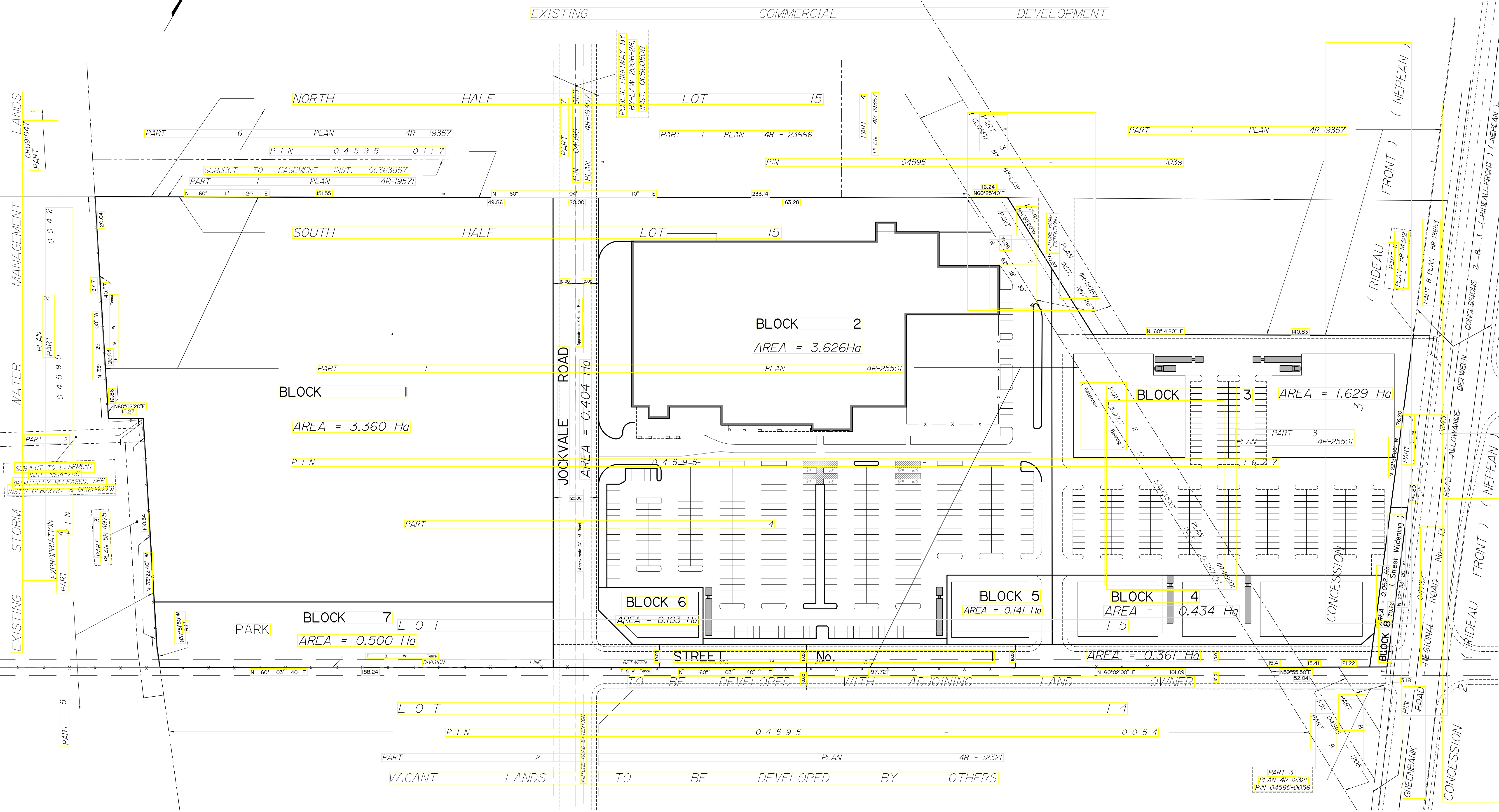
This is to certify that I am the owner / agent of the lands to be subdivided and that this plan was prepared in accordance with our instructions.

Date _____
Steve Grandmont, Chief Operating Officer
Richcraft Homes Ltd.
I have the authority to bind the corporation

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51-17 OF THE PLANNING ACT

- (a) see plan
- (b) see plan
- (c) see plan
- (d) (purpose for which lots are to be used)
- (e) see plan
- (f) see plan
- (g) see plan
- (h) City of Ottawa
- (i) see soils report
- (j) see plan
- (k) (municipal services available or to be available)
- (l) see plan

REVISION SCHEDULE			
NO.	REVISION	DATE	BY
1	PLAN PREPARED	NOV. 07, 2017	DG
2	BLOCK 4 & DAYLIGHTING	NOV. 14, 2017	DG
3	ADD PROPOSED BUILDING FOOTPRINTS & PARKING	NOV. 21, 2017	AZP
4	ADD SITE TRIANGLES, PARK, BLOCKS 4 & 5, AMEND AREAS, STREETS 1 AND 3	NOV. 27, 2017	AZP
5			
6	REVISIONS	SEPT. 6, 2018	N
7	REVISIONS	DEC. 3, 2018	N



3.0 TREE INVENTORY METHODS

Trees that occur within the Site were inventoried on October 24th, 2018. Weather conditions included sunny skies and temperatures of 9 °C. Late autumn conditions were observed within the Site, with the majority of trees retaining sufficient leaf coverage to allow accurate identification.

The patches of tree cover within the Site are too small for TCR measurement plots to be utilized. Instead, representative tree size measurements were taken in each of the tree stands that remain within the Site. Tree size measurements were taken with a D-tape, which is a calibrated diameter at breast height tape. Due to the fragmented nature of the remaining tree cover within the Site, trees were not classified according to Ecological Land Classification vegetation communities. Instead, individual tree stands were identified and are described below.

3.1 Definitions

The following terms are used throughout this report:

- Diameter at Breast Height (dbh) means the measurement of the trunk of a tree at a height of 120 cm above grade for trees 15 cm diameter or greater, and at a height of 30 cm above grade for trees less than 15 cm diameter.
- The Critical Root Zone (CRZ) is 10 centimeters from the trunk of the tree for every centimeter of trunk dbh. The CRZ is calculated as $dbh \times 10$ cm.

4.0 TREE INVENTORY

4.1 Site History

Air photos from 1976, 1991 and 2005 are included below (Photos from City of Ottawa 2018). Recent air photos are included in the report figures. The oldest available historic air photo (from 1976), shows that the Site was farmed at that time. In 1976, there appears to be very little tree cover within the Site, with only a few young trees present in the southern part of the Site (Tree Stand M) and around the historic farmhouse. This suggests that the majority of trees found within the Site began growing after 1976, and are hence less than 40 years old. By 1991, trees found within the southern part of the Site (Tree Stand M) appear more mature, and additional stems are visible around the farmhouse. By 2005, the Deciduous Hedgerows (Tree Stand M) and the tree coverage surrounding the farmhouse have expanded. The farmhouse, barn, and other agricultural buildings that are visible within the historic air photos were demolished sometime after 2005.

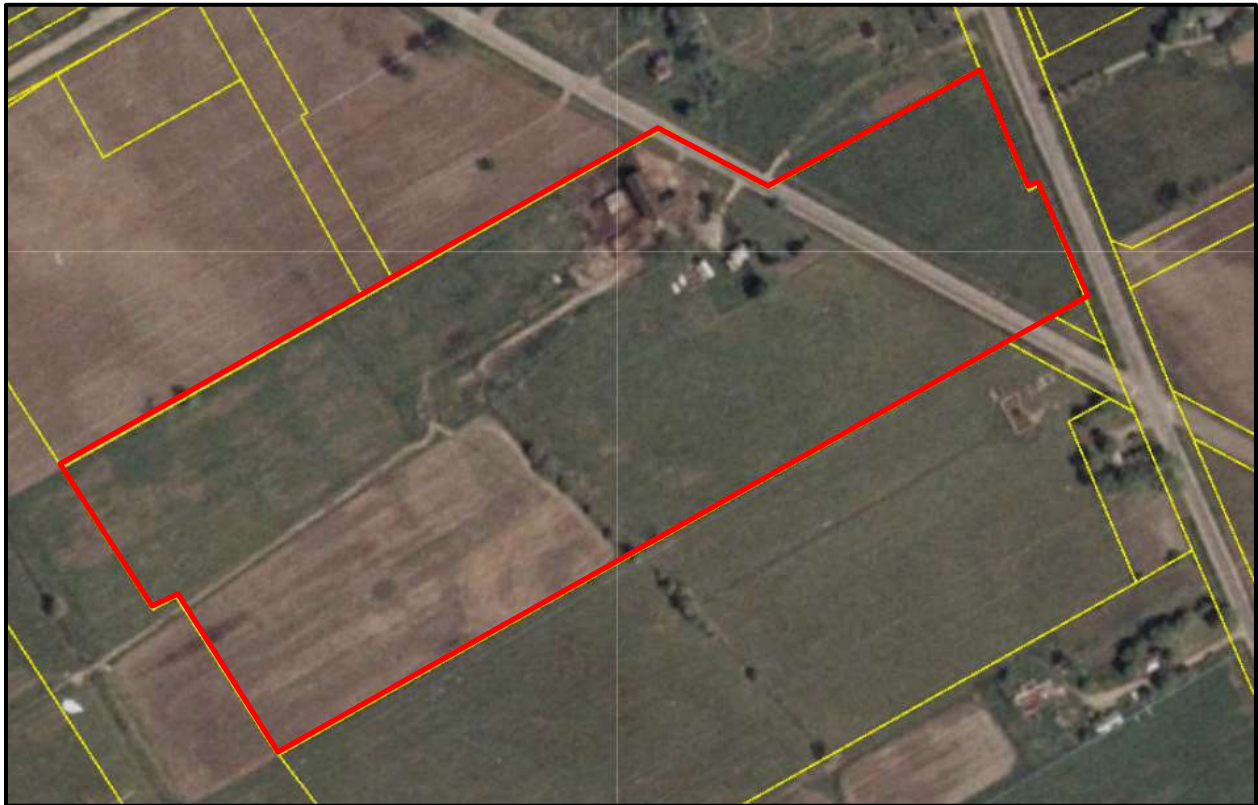


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Historic Air Photograph 1: Historic Air Photo from 1976 (Site limits shown in red). Note the Site appears to be farmed. In 1976, there appears to be very little tree cover within the Site, with only a few young trees present in the southern part of the Site (Tree Stand M) and around the historic farmhouse (Photos from City of Ottawa 2018).



Historic Air Photograph 2: Historic Air Photo from 1991 (Site limits shown in red). Note the Site appears to be farmed in 1991. By 1991, trees found within the southern part of the Site (Tree Stand M) appear more mature, and additional stems are visible around the farmhouse (Photos from City of Ottawa 2018).



Historic Air Photograph 3: Historic Air Photo from 2005 (Site limits shown in red). Note the Site appears to be farmed in 2005. By 2005, the Deciduous Hedgerows (Tree Stand M) and the tree coverage surrounding the farmhouse have expanded. The farmhouse, barn, and other agricultural buildings that are visible within the historic air photos were demolished sometime after 2005 (Photos from City of Ottawa 2018).

FIGURE 2: TREE LOCATIONS

3194 Jockvale Road Development Tree Conservation Report



Please Note: This is not a legal land survey. All dimensions and locations are shown as approximate.

 - Study Area  - Tree Stand Letter

4.2 Tree Stands

As noted above, due to the fragmented nature of the remaining tree cover within the Site, trees were not classified according to Ecological Land Classification vegetation communities. Instead, individual tree stands were identified and are described below. Tree stand locations are shown in Figure 2. Photographs of each Tree Stand are included in Appendix A. The following tree stands were noted within the Site:

- **Tree Stand A:** Tree Stand A includes five (5) planted Honey Locust (*Gleditsia triacanthos*) located at the edge of the adjacent commercial property. Trees sizes are between 35 cm and 40 cm dbh.
- **Tree Stand B:** Tree Stand B includes three (3) dead planted Red Pine (*Pinus resinosa*) located at the edge of the adjacent commercial property. All three (3) stems are approximately 22 cm dbh in size.
- **Tree Stand C:** Tree Stand C is a large Honey Locust with six (6) connected stems that are each between 15 cm and 20 cm dbh in size. Tree Stand C is located at the edge of the adjacent commercial property. There are also two (2) dead White Ash (*Fraxinus americana*) nearby.
- **Tree Stand D:** Tree Stand D includes six (6) planted White Spruce (*Picea glauca*) that are each less than 10 cm dbh in size. Tree Stand D is located at the edge of the adjacent commercial property.
- **Tree Stand E:** Tree Stand E is present at the edge of the adjacent commercial property. Tree Stand E includes two (2) planted Hackberry Trees (*Celtis occidentalis*) and two (2) Manitoba Maples (*Acer negundo*). All four (4) stems are between 10 cm and 20 cm dbh in size.
- **Tree Stand F:** Tree Stand F includes four (4) stems of a planted domestic Maple variety (*Acer sp.*), each of which are approximately 15 cm dbh in size. Tree Stand F is located at the edge of the adjacent commercial property.
- **Tree Stand G:** Tree Stand G includes two (2) planted Linden (*Tilia americana*) that are both 13 cm dbh in size. Tree Stand G is located at the edge of the adjacent commercial property.
- **Tree Stand H:** Tree Stand H includes a 22.5 cm dbh and a 24 cm dbh Hackberry, located at the edge of the adjacent commercial property.
- **Tree Stand I:** Tree Stand I is a 69 cm dbh White Ash that is located on an adjacent property west of the Site, between the Site edge and the nearby Stormwater Management Pond. Tree Stand I is in poor condition due to the effects of the invasive Emerald Ash Borer.
- **Tree Stand J:** Tree Stand J is a 36 cm dbh White Ash that is located at the edge of the Site. Tree Stand J is in poor condition due to the effects of the invasive Emerald Ash Borer.
- **Tree Stand K:** Tree Stand K is a 30 cm dbh White Ash that is located at the edge of the Site. Tree Stand K is in poor condition due to the effects of the invasive Emerald Ash Borer.
- **Tree Stand L:** Tree Stand L includes a small stand of Staghorn Sumac (*Rhus hirta*) and Common Buckthorn (*Rhamnus cathartica*) shrubs, with several young dead White Ash stems.

- **Tree Stand M:** Tree Stand M includes a Deciduous Hedgerow that is dominated by Crack Willow (*Salix fragilis*) between 25 cm and 50 cm dbh in size. As noted above, some of the Crack Willow began growing around 1976, and hence are approximately 40 years of age. However, the majority of stems are younger. Also present are Manitoba Maple and White Ash up to approximately 30 cm dbh in size, and small numbers of young Silver Maple (*Acer saccharinum*). Shrub cover is dominated by Wild Red Raspberry (*Rubus idaeus*), Red Osier Dogwood (*Cornus sericea*), and Common Buckthorn.
- **Tree Stand N:** Tree Stand N is a young tree stand dominated by Manitoba Maple, White Ash, and Crack Willow. Most trees are less than 15 cm dbh in size, although a few Manitoba Maple up to 30 cm dbh in size are present. Shrub cover includes Staghorn Sumac, Wild Red Raspberry, Common Buckthorn, and Red Osier Dogwood. As discussed below, one (1) Butternut (*Juglans cinerea*) seedling was noted within Tree Stand N.
- **Tree Stand O:** Tree Stand O includes several mature trees, which were likely planted as landscaping features surrounding the historic farmhouse. These include White Pine (*Pinus strobus*) (36 cm and 48 cm dbh), White Spruce (64 cm, 43 cm, 41 cm, 29 cm, 45 cm, and 69 cm dbh), and a 41 cm dbh White Birch (*Betula papyrifera*). The mature trees are surrounded by younger recent regrowth White Ash, Sugar Maple (*Acer saccharum*), Manitoba maple, and a few American Elm (*Ulmus americana*) and White Birch, all between 10 cm and 25 cm dbh. Also present are two (2) dead mature White Spruce. Shrub cover includes Common Buckthorn, Staghorn Sumac, and Red Osier Dogwood.
- **Tree Stand P:** Tree Stand P includes twelve (12) White Spruce that were planted along the property line as a visual barrier for the adjacent golf driving range. The White Spruce vary in size between approximately 15 cm and 25 cm dbh.
- **Butternut Tree:** As noted above, a single Butternut Tree (endangered) was found within Tree Stand N. A follow-up Butternut Health Assessment (BHA) (Appendix B) was completed for the Site, which confirmed that only one (1) Butternut Tree is present. The Butternut Tree has a dbh of 4 cm and was assessed as a Category 2 (retainable) tree.

5.0 TREE RETENTION AND MITIGATION MEASURES

5.1 Tree Retention Recommendations

As described above, the majority of tree stands that are found within the Site consist either of planted landscaping features or disturbed recent regrowth stands. There are no areas of intact forest or any significant trees found within the Site. In most areas, tree coverage is dominated by invasive species (e.g. Crack Willow or Manitoba Maple) and/or planted stems. As described above, the majority of trees that occur within the Site are less than 40 years of age. The tree coverage within the Site does not form part of any significant natural heritage features, and trees that occur within the Site have comparatively little ecological value. The following is a summary of the tree retention recommendations for the Site:

- **Tree Stands A, C, D, E, F, G and H:** Tree Stands A, C, D, E, F, G and H were planted as landscaping features and occur at the edge of the adjacent commercial property. Where feasible, these planted landscaping features should be retained on the adjacent property during development of the Site. Mitigation measures to protect retained trees on adjacent properties are discussed below.
- **Tree Stand B:** Tree Stand B was planted as a landscaping feature, and occurs at the edge of the adjacent commercial property. However, all stems within Tree Stand B are dead, and therefore measures to protect Tree Stand B are not required.
- **Tree Stands I, J, K and L:** Tree Stands I, J, K and L all consist of White Ash trees, some of which are surrounded by shrubs. All of the White Ash trees are either dead or dying due to the effects of the invasive Emerald Ash Borer, and therefore should not be retained.
- **Tree Stands M and N:** Tree Stands M and N are Deciduous Hedgerows that are dominated by invasive Crack Willow, with a high proportion of invasive Manitoba Maple. Both features also include White Ash, which are dead and/or dying due to the effects of the invasive Emerald Ash Borer. Due to the fact that these features are dominated by invasive species and degraded, they should not be a priority for retention.
- **Tree Stand O:** Tree Stand O includes several mature trees that were likely planted as landscaping features around the historic farmhouse. Although several mature stems are present, the majority of trees are relatively young recent regrowth. Tree Stand O cannot be retained, as it falls within the development area.
- **Tree Stand P:** Tree Stand P includes the White Spruce stems that were planted along the property line as a visual barrier for the adjacent golf driving range. The White Spruce occur in the center of the future Street #1 road allowance, and hence cannot feasibly be retained.

- **Butternut Tree:** The Butternut Tree occurs within the development area (Tree Stand N) and therefore cannot be retained. Regulatory requirements to remove the Butternut Tree are discussed below.

In summary, no tree retention within the development area is recommended. Where feasible, trees that occur within adjacent properties and/or at the property line should be retained during development. These include Tree Stands A, C, D, E, F, G, and H. Mitigation measures to protect retained trees on adjacent properties are discussed below.

The City of Ottawa has noted that obtainment of a permit under the City's Urban Tree Conservation Bylaw will be required prior to tree removal. Prior to removing the Butternut Tree, the regulatory requirements discussed below must be fulfilled.

5.2 Butternut Tree Regulatory Requirements

The rules and regulations of the Ontario Endangered Species Act (ESA) allow proponents to fulfill regulatory requirements for the removal of up to ten (10) Category 2 (retainable) Butternut Trees through the Ontario Ministry of Natural Resources and Forestry (OMNRF) online registration system. The removal of the one (1) Category 2 Butternut Tree will be registered through the online registry in January 2019, prior to removal of the tree. A copy of the Confirmation of Impact Registration will be provided to the City, following completion of the registration process. The rules and regulations of the ESA require that Richcraft provide compensation for the removal of the Butternut Tree by planting five (5) Butternut Seedlings and five (5) companion trees. Compensation planting requirements will be fulfilled off-site in collaboration with the Rideau Valley Conservation Foundation (RVCF).



5.3 Tree Protection Mitigation Measures

In order to protect retained trees during development, the following tree protection measures should be implemented where trees occur close to construction activities:

- Soil compaction, vegetation damage, intrusion of construction equipment and other potential impacts on the core of the root system of retained trees found adjacent to the Site should be avoided by restricting grading and other site alteration activities to the designated construction area. This can be achieved by providing construction fencing or suitable boundary definition to clearly mark the boundaries between the edge of the construction area and areas of tree retention/adjacent properties (where required), during each phase of tree clearing and construction; and
- If damage to trees that are identified for retention occurs, an arborist should review any damage to determine the best course of action to restore the original vegetative functions. Alternatively, damaged landscaping features can be replaced with new plantings.

Tree mitigation measures have been proposed to help protect and preserve trees adjacent to the proposed development. Trees to be retained should be protected by the following tree preservation measures:

- Mark the edge of the tree clearing area to ensure only designated trees are removed. Protect the critical root zone (CRZ) of retained trees, where the CRZ is established as being 10 cm from the trunk of a tree for every centimeter of trunk dbh. The CRZ is calculated as $\text{dbh} \times 10 \text{ cm}$;
- When 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. Ensure there is not root pulling or disturbance of the ground within the CRZ;
- 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;
- Do not attach any signs, notices, or posters to any tree;
- Do not damage the root system, trunk, or branches of any tree; and
- Ensure that exhaust fumes from all equipment are directed away from any tree canopy.

5.4 Wildlife Protection During Tree Clearing

The following mitigation measures for wildlife protection must be implemented during any future tree clearing. These include provisions from the City of Ottawa (2015) *Protocol for Wildlife Protection During Construction*:

- **Pre-Stressing:** Prior to tree and vegetation removal, the area should be pre-stressed by traversing the Site with a loud noise such as an excavator horn. This will encourage wildlife to leave the area;
- **Tree and Vegetation Clearing Direction:** Tree and vegetation clearing should proceed from north to south or from east to west. This will encourage wildlife to leave the work area and move in the direction of the stormwater ponds and golf driving range, rather than in the direction of existing development and/or Greenbank Road;
- **Wildlife Fencing:** Due to the absence of natural heritage features adjacent to the Site, temporary wildlife fencing should not be required;
- **Inspections:** The work area will be inspected by a designated staff member prior to commencement of work. Any wildlife or significant wildlife habitat features that are encountered will be identified and marked;
- **Sweeps:** Prior to vegetation clearing, preconstruction sweeps of vegetated areas will be undertaken to ensure wildlife are not present. Construction staff will be required to review the mitigation measures included in this report. A designated staff member will be required to conduct daily sweeps each morning prior to commencement of work to ensure wildlife have not entered the work area;
- **SAR Encounters:** If Species at Risk (SAR) are encountered in the work area, construction in the vicinity must be stopped immediately and measures must be taken to ensure the SAR is not harmed. The project biologist and the OMNRF must be contacted to discuss how to proceed prior to recommencement of work;
- **General Provisions:** General provisions for Site management include the following:
 - Do not harm, feed, or unnecessarily harass wildlife;
 - Drive slowly and avoid hitting wildlife;
 - Keep Site tidy and free of garbage and food wastes. Secure all garbage in appropriate sealed containers;
 - Ensure proper Site drainage so that standing water does not accumulate on Site. This will reduce the likelihood that turtles and other wildlife may enter the Site;
 - Any stockpiles should be properly secured with silt fencing to prevent wildlife from accessing areas of loose fill; and

- **Timing Windows:** Vegetation clearing and site preparation will be undertaken outside of the core migratory bird breeding season of April 15th to August 15th each year in order to avoid impacting the nests of migratory birds.



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6.0 REPLANTING

In order to mitigate the loss of woody vegetation from Site clearing, consideration should be given to replanting trees and shrubs between lots, at the back and front of lots, and surrounding the commercial development. Plantings should emphasize the use of native trees and shrubs, which may include those that are currently found in the area, as identified above. Planting of Ash trees should be avoided due to the high likelihood that any planted Ash trees will become infested with Emerald Ash Borer.

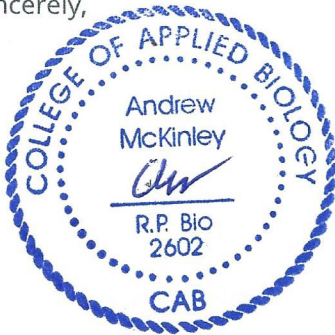


7.0 CLOSURE

Pending that the regulatory, mitigation, and avoidance measures outlined in this report are implemented appropriately, the development of the 3194 Jockvale Road property is not anticipated to have a significant negative effect on the natural features and functions.

We trust that the above information is sufficient; should you have any questions or require further information, please do not hesitate to contact the undersigned, at your convenience.

Sincerely,



Dr. Andrew McKinley, EP, RP Bio.
Senior Biologist, McKinley Environmental Solutions

8.0 REFERENCES

City of Ottawa (2015) Protocol for Wildlife Protection During Construction.

City of Ottawa (2018) Geo-Ottawa Municipal Mapping Site. Retrieved December 4th, 2018 at
<<http://maps.ottawa.ca/geottawa/>>



APPENDIX A

Site Photographs



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Photograph 1: Looking northeast at Tree Stand A (Honey Locusts) (October 24th, 2018).



Photograph 2: Looking north at Tree Stand B (dead Red Pines) (October 24th, 2018).



Photograph 3: Looking north at Tree Stand C (Honey Locust and dead White Ash) (October 24th, 2018).



Photograph 4: Looking north at Tree Stand D (White Spruce) (October 24th, 2018).



Photograph 5: Looking north at Tree Stand E (Hackberry and Manitoba Maple) (October 24th, 2018).



Photograph 6: Looking north at Tree Stand F (domestic Maple variety) (October 24th, 2018).



Photograph 7: Looking north at Tree Stand G (Linden) (October 24th, 2018).



Photograph 8: Looking north at Tree Stand H (Hackberry) (October 24th, 2018).



Photograph 9: Looking southwest at Tree Stand I (White Ash) (October 24th, 2018).



Photograph 10: Looking west at Tree Stand J (White Ash) (October 24th, 2018).



Photograph 11: Looking northeast at Tree Stand K (White Ash) (October 24th, 2018).



Photograph 12: Looking southeast at Tree Stand L (White Ash, Staghorn Sumac, and Common Buckthorn) (October 24th, 2018).



Photograph 13: Looking east at Tree Stand M (dominated by Crack Willow) (October 24th, 2018).



Photograph 14: Looking north at Tree Stand N (dominated by Manitoba Maple, White Ash, and shrubs) (October 24th, 2018).



Photograph 15: Looking east at Tree Stand N (dominated by Manitoba Maple, White Ash, and shrubs) (October 24th, 2018).



Photograph 16: Looking north at Tree Stand O (mature White Spruce, White Pine and White Birch are visible) (October 24th, 2018).



Photograph 17: Looking southeast at Tree Stand P (planted White Spruce) (October 24th, 2018).



Photograph 18: Butternut Tree within Tree Stand N (October 24th, 2018).

APPENDIX B

Butternut Health Assessment (Rose Fleguel 2018)



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Kevin Yemm
VP Land Development
Richcraft Homes Ltd.
2280 St. Laurent Blvd., Suite 201
Ottawa, ON
K1G 4K1
keviny@richcraft.com

November 15, 2018

RE: 3194 Jockvale Rd., Barrhaven
BHA Report Number: 18-017
Date(s) of Butternut health assessment: November 14, 2018

Dear Kevin,

This letter is in regard to my assessment of the Butternut trees on the above noted property. Please read this letter carefully as it contains important information about the Endangered Species Act, 2007 (ESA).

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, is protected under the ESA from being killed, harmed, or removed. If you are planning to undertake an activity that may affect Butternut, you may be eligible to follow the requirements set out in section 23.7 of Ontario Regulation 242/08 under the ESA, or you may need to seek an authorization under the ESA (e.g., a permit).

Please visit e-laws at the link provided below for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled. Information about Butternut is also available at: <http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>.

If you are eligible to kill, harm or take Butternut under section 23.7 of the regulation, your first step is to submit the BHA Report and the original data forms enclosed in this package to the local MNR District Manager. Note that the MNR will not accept photocopies. The BHA Report must be submitted at least 30 days prior to registering to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or

Links:

Endangered Species Act, 2007:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_07e06_e.htm

Ontario Regulation 242/08 (refer to section 23.7):

http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm

Summary of changes related to Butternut:

<http://www.ontario.ca/environment-and-energy/butternut-trees-your-property>

MNR office locations:

http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html

removed, and MNR may contact you for an opportunity to examine the trees.

If MNR chooses to examine the trees, a representative of the MNR will contact you using the information you supplied when you submitted the BHA Report. After the examination has been completed, MNR will notify you if the examination results change whether you are eligible for the regulation.

If you are eligible to follow the rules in regulation under section 23.7, you may register your activity using the “Notice of Butternut Impact” form on the [MNR Registry](#) **after** the 30 day period has elapsed.

If you are **not** eligible to follow the rules in regulation under section 23.7, please contact the local Ministry of Natural Resources (MNR) office to determine whether you will need to seek a permit. A link to the directory of MNR offices is provided in the text box on the previous page.

As a designated Butternut Health Assessor (BHA), I am providing the following Butternut Health Assessor’s Report for the trees located at the above noted property, for which I completed an assessment during the site visit on the above noted date. If there are other Butternut trees at the site that may be affected by the activity and they are not identified in this report, they too must be assessed by a BHA.

Note that municipal by-laws and legislation other than the ESA may also be applicable to the removal or harming of trees.

Please retain this letter and a copy of the BHA Report along with any other documentation you may receive from the MNR should an examination of the trees occur. If you have any questions, please do not hesitate to contact me or Aaron Foss, Fish & Wildlife Technical Specialist at the Kemptville District Ministry of Natural Resources office at aaron.foss@ontario.ca

Sincerely,

Rose Fleguel

Enclosures:

1. Butternut Health Assessor’s (BHA) Report
2. Copied data forms – originals to MNR
3. Electronic copy of the Excel data spreadsheet (BHA Tree Analysis)

Butternut Health Assessor's Report

Rose Fleguel
 405 Latourell Rd.
 Mountain, ON
 K0E 1S0

Kevin Yemm
 VP Land Development
 Richcraft Homes Ltd.
 2280 St. Laurent Blvd., Suite 201
 Ottawa, ON
 K1G 4K1

Property description: 3194 Jockvale Rd., Barrhaven
 BHA Report Number: 18-017
 Date(s) of Butternut health assessment: November 14, 2018
 Date BHA Report prepared: November 15, 2018

Map datum used: NAD83 WGS84

Total number of trees in this BHA Report: 1

The assessed tree was numbered using white flagging tape. The number on the tree corresponds to the tree number used in this report.

This BHA Report includes the following tables:

- Table 1: Butternut trees proposed to be killed, harmed, or taken
- Table 2: Butternut trees that are **not** proposed to be killed, harmed or taken
- Table 3: Trees determined to be hybrid Butternuts
- Table 4: Summary of Assessment Results

Table 1: Butternut trees proposed to be killed, harmed, or taken

Tree #	UTM coordinates	Category ¹ (1, 2, or 3 ²)	dbh ³ (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: killed, harmed or taken)	Reason tree is proposed to be killed, harmed or taken:
1	E0441370 N5012897	2	4	N	unknown	development

¹ The extent to which the tree is affected by Butternut Canker is presented in the Excel document titled, "BHA Tree Analysis" that accompanies this BHA Report.

² The rules in regulation under section 23.7 of O. Reg. 242/08 are not applicable to Category 3 trees.

³ dbh: diameter at breast height, rounded to nearest cm (if tree is shorter than breast height, enter zero)

Table 2: Butternut trees that are **not** proposed to be killed, harmed or taken

Tree #	UTM coordinates	Category (1, 2, or 3)	dbh ⁴ (cm)	Cultivated? (Y/N)

Table 3: Trees determined to be hybrid Butternuts

Tree #	UTM coordinates

Table 4: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	0	<ul style="list-style-type: none"> A Category 1 tree is one that is affected by butternut canker to such an advanced degree that retaining the tree would not support the protection or recovery of butternut in the area in which the tree is located; and is considered “non-retainable”. During the 30 day period that follows your submission of this BHA Report to the MNR District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNR may contact you for an opportunity to examine the trees. Category 1 trees may be killed, harmed or taken after the 30 day period that follows submission of this BHA Report to the MNR District Manager, unless the results of an MNR examination indicate that the assessment has not been conducted in accordance with the document entitled “Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the <i>Endangered Species Act, 2007</i>”.
Category 2	1	<ul style="list-style-type: none"> A Category 2 tree is one that is not affected by Butternut Canker, or is affected by Butternut Canker but the degree to which it is affected is not too advanced and retaining the tree could support the protection or recovery of butternut in the area in which the tree is located, and is considered “retainable”. During the 30 day period that follows your submission of this BHA Report to the MNR District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNR may contact you for an opportunity to examine the trees. Activities that may kill, harm or take up to a maximum of ten (10) Category 2 trees may be eligible to follow the rules in section 23.7 of Ontario Regulation 242/08, in accordance with the conditions and requirements set out in the regulation. Refer to e-Laws for the legal requirements of eligible activities under section 23.7 of Ontario Regulation 242/08 and conditions that must be fulfilled: http://www.e-laws.gov.on.ca/html/reg/english/elaws_regs_080242_e.htm
Category 3	0	<ul style="list-style-type: none"> A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”. Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		<p>Regulation 242/08.</p> <ul style="list-style-type: none"> Visit the MNR website using the link below for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees: http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/MNR_SAR_HOW_DO_GET_PER_EN.html
Cultivated	0	<ul style="list-style-type: none"> An activity that involves killing, harming, or taking a cultivated Butternut tree that was not required to be planted to fulfill a condition of an ESA permit or a condition of a regulation, may be eligible for the exemption provided by subsection 23.7 (11) of O. Reg. 242/08. Prior to undertaking the activity, the owner or occupier of the land on which the Butternut is located (or person acting on their behalf) will need to determine whether the exemption for cultivated trees is applicable by determining whether or not the tree was cultivated as a result of the requirements for an exemption under O. Reg. 242/08 or a condition of a permit issued under the ESA. This information can be accessed by contacting the local MNR district office: http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html The owner or occupier of the land on which the Butternut is located (or person acting on their behalf) is encouraged to append the details regarding whether the tree was planted to satisfy a requirement (e.g., the permit number or registration number) to this BHA Report for their records.
Hybrid	0	<ul style="list-style-type: none"> Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.

NOTE: This concludes the summary of the BHA Report. A complete BHA Report must include the original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2) and an electronic copy of the Excel data analysis spreadsheet.

BHA Tree Analysis (version: December 2013)

This table is to be completed by a designated Butternut Health Assessor (BHA).

BHA Report #	n/a	Assessment Date(s)	14-Nov-18				Total # Butternut Trees in BHA Report	1												
BHA ID #	2		BHA Name				Rosemary Fleguel													
Landowner / Client Name			Richcraft Homes Ltd.																	
Property Location		3194 Jockvale Rd.																		
input field data										automatic calculations from field data						Categories: 1: non-retainable, 2: retainable, 3: archivable				
Tree #	Live Crown %	Tree dbh (cm)	# bole cankers				# root flare (RF) cankers		<40 m from cankered tree? (Y or N)	Circ. (cm) = Pi x dbh	total bole canker width (sooty x 2.5 + open x 5)	total RF canker width (sooty x 2.5 + open x 5)	bole canker % of circ.	RF canker % of circ.	total bole & root canker % of 2xCirc	LC% >= 50 & BC% = 0	LC% >70 & BRC% <20	LC% >70 & BC% <20	Preliminary tree call	FINAL TREE CALL a Cat 2, dbh>20cm <40m from a Cat 1
			sooty (S) (will be assigned 2.5 cm per canker)	open (O) (will be assigned 5 cm per canker)	RF S	RF O	Circ (cm)	BC (cm)		RC (cm)	BC%	RC%	BRC%							
1	100	4	0	0	0	0	0		12.56	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2	
2									0	0.0	0.0	#####	#####	#####	####	###	###	##	##	#DIV/0!
3									0	0.0	0.0	#####	#####	#####	####	###	###	##	##	#DIV/0!
4									0	0.0	0.0	#####	#####	#####	####	###	###	##	##	#DIV/0!
5									0	0.0	0.0	#####	#####	#####	####	###	###	##	##	#DIV/0!

Surveyor ID or BHA # **002**

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy)

14 - 10 - 2018

Shaded fields are mandatory for Butternut Health Assessments

Surveyor Contact

First **ROSE** Last **PLEAVEL**

Email

Telephone (**613**) **858-3678** Telephone Other () - () - () X () () ()

Property Owner

First Last

(check if same as surveyor)

or Company **RICH CRAFT HOMES LTD**

Email

Telephone () - () - () Telephone Other () - () - () X () () ()

Property Owner's Mailing address

Address **2280 ST LAURENT BLVD** Postal Code **K1G4K1** Prov. **ON**

City **OTTAWA**

Tree Location (if different from mailing address)

Address/(911#) **3194 JOCKVALE RD**

Township Lot Con

City **BARRHAVEN**

Directions

Yes No Can Share Location Information with other Butternut Recovery Organizations?
 Yes No Site visits OK? (prior arrangements will always be made for a site visit)

> (Greater than)
< (Less than)

Butternut Trees Tally by Diameter Class

(Do a dot tally in blank space; write total# in box for each)

Tree Condition	< 3 cm	3-15 cm	16-30cm	>30 cm
Vigorous: > 50% Live Crown Minor or no cankers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Dead	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Historically, do some trees produce seeds? Y N Unknown

Estimated area containing butternut for properties > 1 acre (0.4 hectares): Acres Hectares

LEAF-OFF ASSESSMENT

Overall Property Description (area(s) containing Butternut)

- Rolling Upland Bottomland
- Valley Slope Variable
- Tableland Unknown

Vegetation Community/ies

- Open Fencerow
- Shrubland Roadside
- DeciduousForest Quarry
- ConiferForest UrbanYard
- MixedForest UrbanPark

Other

Soil Drainage

- Well Drained
- Moderately Drained
- Poorly Drained
- Unknown

Soil Depth

- > 1metre
- 30 - 99cm
- < 30cm
- Variable

Soil Texture

- Clay Sand
- Clay Loam Variable
- Loam Unknown
- Loamy Sand

Please enter matching numerical page link code on forms 1 and 2

Page Link **441370**

(Contact Information follows all applicable privacy policies and guidelines)

Please return forms to:
 Forest Gene Conservation Association
 Suite 233, 266 Charlotte St.
 Peterborough, ON, K9J 2V4
 www.fgca.net

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Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE BLOCK LETTERS)

Fill when Form 1 indicates canker is well established. The information on Form 2 must be filled out for all trees when doing a Butternut Health Assessment.

Shaded fields are mandatory for Butternut Health Assessments

Site Code(A,B,...Z, AA...)

Surveyor ID or BHA # **002**

Date (dd/mm/yyyy) **14 - 10 - 2018**

Surveyor Last Name

Tree ID Numbering: 1,2,3,...Starting from 1 for each site

Tree # **1** Zone **18** Easting **441370** Northing **5012897**

Crown Class **100** Live Crown % **2** Main Stem Length(m) Below crown **2** Seed Signs
 Twig Dieback Branch Dieback Defoliation Discolouration #Stems **4** DBH(cm) **4**
 Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown
 #Epic-Live #Epic-Dead Bark Type # Callused Wounds
 #Open #Sooty
 Root =<2m >2m

Metres from badly cankered tree < 40 > 40 None Found
 Competing Species

Tree # **1** Zone **1** Easting Northing

Crown Class Live Crown % Main Stem Length(m) Below crown Seed Signs
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