



# Tree Conservation Report (Revised)

2112 Bel Air Drive, Ottawa, Ontario



May 2020  
Prepared for Uniform Developments

McKINLEY ENVIRONMENTAL SOLUTIONS  
613-620-2255 | [mckinleyenvironmental@gmail.com](mailto:mckinleyenvironmental@gmail.com)  
[www.mckinleyenvironmental.com](http://www.mckinleyenvironmental.com)



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Uniform Developments  
117 CentrepoinTE Drive, Suite 300  
Ottawa, Ontario, K2G 5X3

May 20<sup>th</sup>, 2020

**Attn: Matt MacDougall, Project Manager**

**CC: Annibale Ferro, General Manager**

RE: Tree Conservation Report (Revised) for 2112 Bel Air Drive, Ottawa, Ontario

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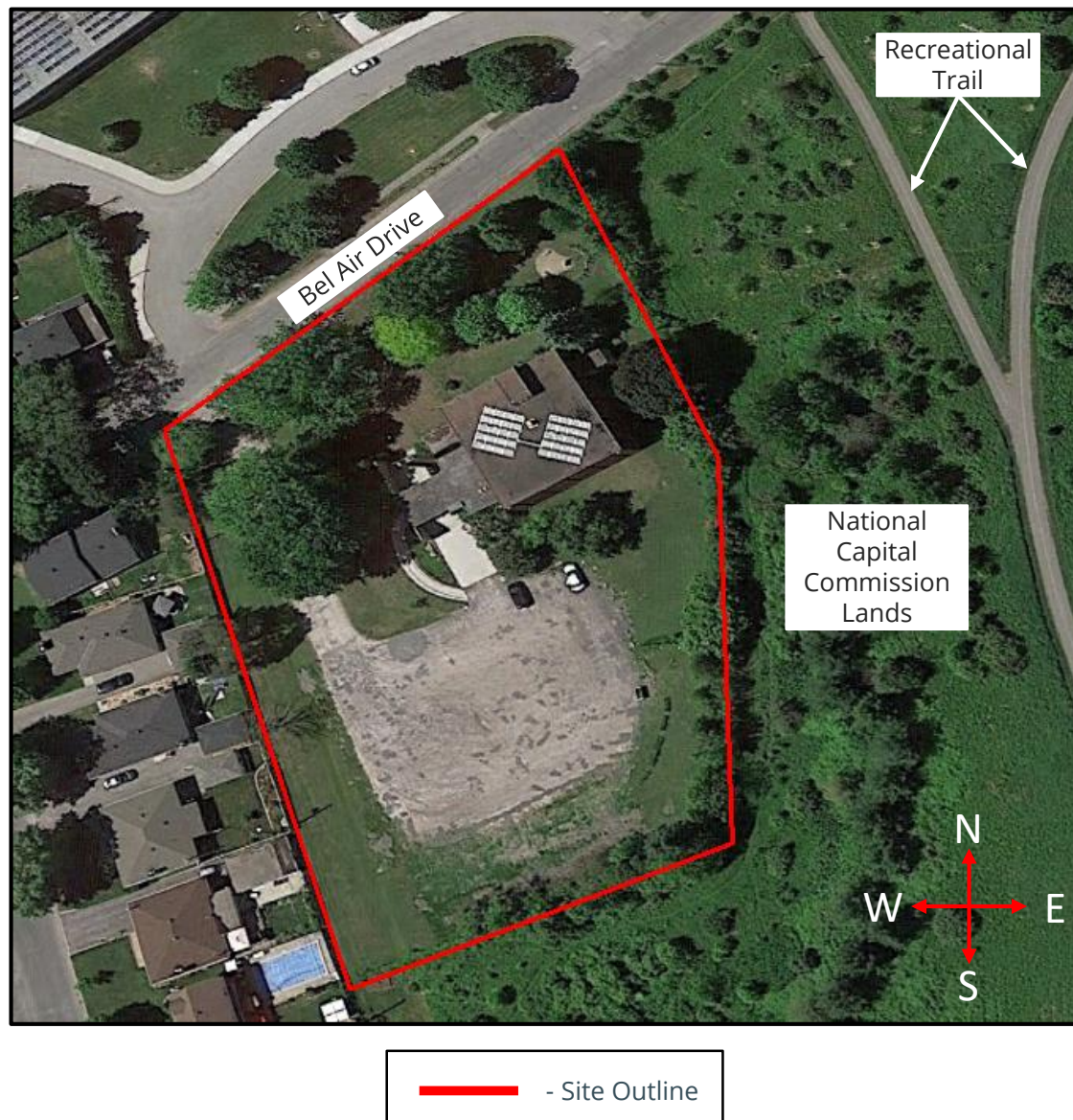
## 1.0 SITE OVERVIEW AND DESCRIPTION OF REDEVELOPMENT

McKinley Environmental Solutions (MES) was retained by Uniform Developments to complete a Tree Conservation Report (TCR) to support the proposed redevelopment of the 2112 Bel Air Drive property (PIN 039890019), located in Ottawa, Ontario (the Site) (Figure 1). The Site is approximately 0.81 ha in size. The Site is located south of Bel Air Drive, with approximately 88 m of frontage on Bel Air Drive. The Site elevation is approximately 80 m Above Sea Level (ASL) and the Site is predominantly flat and well drained. The area west of the Site includes existing developed residential homes, whereas the area north of the Site includes Bel Air Drive, beyond which is a school. The area south and east of the Site is owned by the National Capital Commission (NCC) and is designated as open space. The NCC property includes undeveloped areas of meadow, thicket, and isolated stands of trees and shrubs, as well as a recreational trail. The Site itself is predominantly previously developed and currently includes a church building, driveway, and parking lot. The remainder of the Site includes manicured lawn with several planted trees. Tree and shrub stands are also present around the margins of the Site.

A Concept Plan for the proposed redevelopment is included below. The Site is proposed to be redeveloped from its current usage as a church, to accommodate twenty seven (27) townhomes. The redevelopment will also include advancement of a new road that will provide access from Bel Air Drive. The blue hatched area shown in the Concept Plan is a proposed easement, which is intended to accommodate a sanitary sewer. The sanitary sewer currently crosses through the Site, and will be realigned into the proposed easement as part of the redevelopment project.

# FIGURE 1: SITE OVERVIEW

Tree Conservation Report (Revised)  
2112 Bel Air Drive, Ottawa, ON



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



Unit Zoning Setbacks

PUD Zoning Setbacks



TABLE 160A – R3 SUBZONE PROVISIONS (OMB Order File No. PL150797, issued July 25, 2016 - By-law 2015-228)										
I Sub-Zone	II Prohibited Uses	III Principal Dwelling Type	IV Minimum Lot Width (m)	V Minimum Lot Area (m <sup>2</sup> )	VI Maximum Building Height (m)	VII Minimum Front Yard Setback (m)	VIII Minimum Corner Side Yard Setback (m)	IX Minimum Rear Yard Setback (m)	X Minimum Interior Side Yard Setback (m)	XI Endnotes (see Table 160B)
W	Three Unit	Planned Unit Development	na	1,400	As per dwelling type <sup>13</sup>	3	3	varies <sup>1</sup>	varies <sup>1</sup>	1,13
		Detached, Duplex, Linked-detached	9	270	8 <sup>13</sup>	3	3	6	0.3	13
		Semi-Detached	5.6	165	8 <sup>13</sup>	3	3	6	0.3	13
		Townhouse	5.6	165	11 <sup>12,13</sup>	3	3	6	0.3	13

TABLE 160B – ADDITIONAL ZONING PROVISIONS

I	Endnote Number		II	Additional Zoning Provisions
	1			<p>Despite the definitions of rear yard and interior side yard, buildings in a planned unit development (PUD) must be located so that they are set back,</p> <p>(a) an amount equal to the minimum required rear yard setback for the dwelling type proposed, from a lot line where it abuts a rear yard on an abutting lot but need not exceed 7.5 metres,</p> <p>(b) an amount equal to the minimum required interior side yard setback for the dwelling type proposed, from a lot line where it abuts a side yard on an abutting lot,</p> <p>(c) in the case of an abutting vacant lot, a minimum required interior side yard of 1.8 metres, and a minimum required rear yard setback based on the minimum rear yard setback applicable to the dwelling type proposed to be located within the PUD adjacent to the rear lot line.</p>
	13			<p>Despite the definition of grade in Section 54, the existing average grade will be used for development in Area A on Schedule 342 and will be as follows:</p> <p>Existing average grade must be calculated prior to any site alteration and based on the average of grade elevations taken along both side lot lines at the minimum required front yard setback, and at the minimum required rear yard setback of the zone in which the lot is located. (OMB Order File N°: PL150797, issued July 25, 2016 - By-law 2015-228)</p>

**NOTE:** THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

I	REVISED UNIT FOOTPRINTS	MAR 20/20		
No.	REVISION	DATE	B	

SCALE

1:250 (A1) /  
1:500 (11x17)

	DESIGN
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XXX

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FOR REVIEW ONLY

NOVATECH

Engineers, Planners & Landscape Architects  
Suite 200, 240 Michael Cowpland Drive  
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643  
Facsimile (613) 254-5867  
Website [www.novatech-eng.com](http://www.novatech-eng.com)

CITY of OTTAWA

2112 BEL-AIR DRIVE

DRAWING NAME

CONCEPT PLAN 7  
27 Townhome Units

SUBJECT No. \_\_\_\_\_

118000-00

RE

00-CP7 |



## 2.0 TREE INVENTORY METHODS

Trees that occur within the Site were inventoried on August 9<sup>th</sup>, 2019. Weather conditions included overcast skies and temperatures of 24 °C. Mid-summer conditions were observed within the Site, with the majority of healthy trees having full leaf coverage.

The individual trees and tree stands found within the Site are too small for tree measurement plots to be utilized. Instead, individual stems were measured throughout the Site. Tree size measurements were taken with a D-tape, which is a calibrated diameter at breast height tape. Due to the lack of contiguous natural vegetation communities within the Site, trees were not classified according to the Ecological Land Classification system. Instead, individual trees and tree stands were identified and are described below.

### 2.1 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  $dbh \times 10 \text{ cm}$ .





## 3.0 TREE INVENTORY

### 3.1 Site History

Air photos from 1976, 1991 and 2005 are included below (Photos from City of Ottawa 2020). Recent air photos are included in the report figures. The oldest available historic air photo (from 1976), shows that the church building was present at that time, although the Site and the immediately surrounding area appear predominantly without tree cover. This suggests that the trees that are currently found within the Site are likely less than approximately 40 years old. By 1991, many of the mature trees that are currently found within the Site are visible, suggesting that the oldest stems that currently occur within the Site are approximately 30 years old. In 2005, the majority of recent regrowth stems that are currently found within the Site are also visible.



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**Historic Air Photograph 1:** Historic Air Photo from 1976 (Site limits shown in red). Note that the church building is present in 1976. The Site and the immediately surrounding area appear largely devoid of mature tree cover (Photo from City of Ottawa 2020).





**Historic Air Photograph 2:** Historic Air Photo from 1991 (Site limits shown in red). By 1991, many of the mature trees that are currently found in the Site are visible (Photo from City of Ottawa 2020).





**Historic Air Photograph 3:** Historic Air Photo from 2005 (Site limits shown in red). In 2005, the majority of young recent regrowth stems that are currently found within the Site are visible (Photo from City of Ottawa 2020).



## 3.2 Trees and Tree Stands

As noted above, the Site is predominantly previously developed and currently includes a church building, driveway, and parking lot. There are no significant intact natural vegetation communities found within the Site. Plants growing within the Site include a manicured lawn and small stands of trees and shrubs. Tree and shrub stands are also present around the margins of the Site. Vegetation features found within the Site are shown in Figure 2. Refer to Appendix A for Site Photographs. The locations of Butternut Trees are discussed separately below in Section 3.3.

As described below, the majority of trees and tree stands appear to have been planted as landscaping features. A high proportion of the trees found within the Site are non-native and exotic ornamental species. The Site includes the following vegetation features:

- **Vegetation Feature A:** Vegetation Feature A includes four (4) living stems of non-native Little Leaf Linden (*Tilia cordata*) that are 22 cm, 24 cm, 26 cm, and 30 cm diameter at breast height (dbh) in size. The feature also includes four (4) dead stems. The trees appear to have been planted as landscaping features.
- **Vegetation Feature B:** Vegetation Feature B includes three (3) Red Pine (*Pinus resinosa*) which are 21 cm, 30 cm, and 35 cm dbh in size. The trees appear to have been planted as landscaping features.
- **Vegetation Feature C:** Vegetation Feature C includes a 50 cm dbh Red Pine. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature D:** Vegetation Feature D includes a 59 cm dbh Butternut Tree (*Juglans cinerea*) (Butternut #1).
- **Vegetation Feature E:** Vegetation Feature E includes a row of four (4) living Red Pine which are 32 cm, 33 cm, 23 cm, and 25 cm dbh in size. The row also includes two (2) dead Red Pine. The Red Pines appear to have been planted as landscaping features. The trees occur at the fence line and are overgrown with Common Buckthorn (*Rhamnus cathartica*) shrubs, Riverbank Grape (*Vitis riparia*), and young recent regrowth (<15 cm dbh) stems of Manitoba Maple (*Acer negundo*), White Ash (*Fraxinus americana*), American Elm (*Ulmus americana*), and Crab Apple (*Malus sp.*).
- **Vegetation Feature F:** Vegetation Feature F includes an overgrown White Cedar (*Thuja occidentalis*) hedge that includes several White Cedar stems between 10 cm and 25 cm dbh in size. The hedge includes two (2) non-native Norway Spruce (*Picea abies*) that are 28 cm and 27 cm dbh in size, as well as Butternut Tree #4, which is 29 cm dbh in size. With the exception of Butternut Tree #4, the trees appear to have been planted as landscaping features.



- **Vegetation Feature G:** Vegetation Feature G includes young recent regrowth shrubs and trees growing along the fence line. Species present include Common Buckthorn shrubs, as well as non-native Manitoba Maple and non-native Amur Maple (*Acer ginnala*) between 10 cm and 15 cm dbh in size.
- **Vegetation Feature H:** Vegetation Feature H includes four (4) Crab Apple trees which are 31 cm, 34 cm, 26 cm, and 28 cm dbh in size. The trees appear to have been planted as landscaping features.
- **Vegetation Feature I:** Vegetation Feature I is a non-native 84 cm dbh Norway Maple (*Acer platanoides*). The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature J:** Vegetation Feature J is a non-native 52 cm dbh Norway Spruce. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature K:** Vegetation Feature K is a 26 cm dbh Sugar Maple (*Acer saccharum*). The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature L:** Vegetation Feature L is another 26 cm dbh Sugar Maple. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature M:** Vegetation Feature M is a domestic Honey Locust (*Gleditsia triacanthos*) with two (2) stems. The stems measure 33 cm and 37 cm dbh in size. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature N:** Vegetation Feature N is a 17 cm dbh Sugar Maple. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature O:** Vegetation Feature O is a 44 cm dbh White Spruce (*Picea glauca*). The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature P:** Vegetation Feature P is a 78 cm dbh Silver Maple (*Acer saccharinum*). The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature Q:** Vegetation Feature Q is a 146 cm dbh Silver Maple. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature R:** Vegetation Feature R is a non-native 36 cm dbh Little Leaf Linden. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature S:** Vegetation Feature S is a 113 cm dbh Silver Maple. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature T:** Vegetation Feature T is a non-native 59 cm dbh Norway Maple. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature U:** Vegetation Feature U is a Silver Maple with six (6) stems. The stems measure 41 cm, 21 cm, 14 cm, 20 cm, 55 cm, and 19 cm dbh in size. The tree appears to have been planted as a landscaping feature.



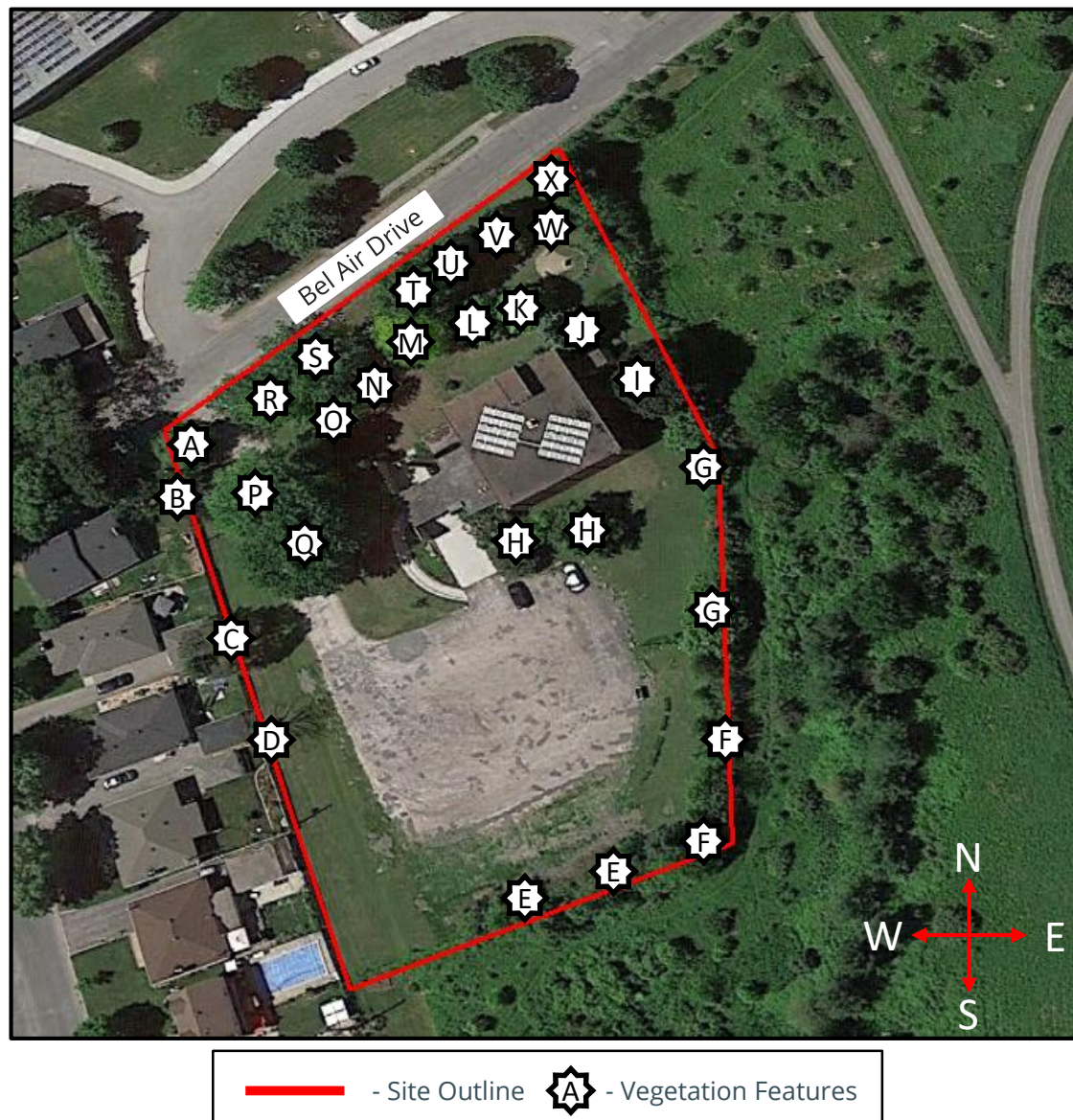
- **Vegetation Feature V:** Vegetation Feature V is a non-native Little Leaf Linden with eight (8) stems. The stems measure 15 cm, 21 cm, 23 cm, 23 cm, 24 cm, 14 cm, 28 cm, and 32 cm in size. The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature W:** Vegetation Feature W is a 22 cm dbh Black Cherry (*Prunus serotina*). The tree appears to have been planted as a landscaping feature.
- **Vegetation Feature X:** Vegetation Feature X is a small stand of young Little Leaf Linden, White Cedar, Red Pine, and Honey Locust stems that vary in size between 10 cm and 15 cm dbh. The stand also includes Common Buckthorn shrubs.

As noted above, the areas north and west of the Site are previously developed. The National Capital Commission (NCC) lands located south and east of the Site include undeveloped areas of meadow, thicket, and isolated tree stands, as well as a recreational trail. Immediately adjacent to the Site, the NCC lands include open meadow with numerous recent regrowth tree stands and shrubs. Tree and shrub species include young White Ash, White Pine (*Pinus strobus*), Manitoba Maple, American Elm, Sugar Maple, and Common Buckthorn. There are no watercourses or wetlands found immediately adjacent to the Site within the NCC lands. There are also no forested areas found immediately adjacent to the Site within the NCC lands.



# FIGURE 2: VEGETATION FEATURES

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2112 Bel Air Drive, Ottawa, ON



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### 3.3 Butternut Trees

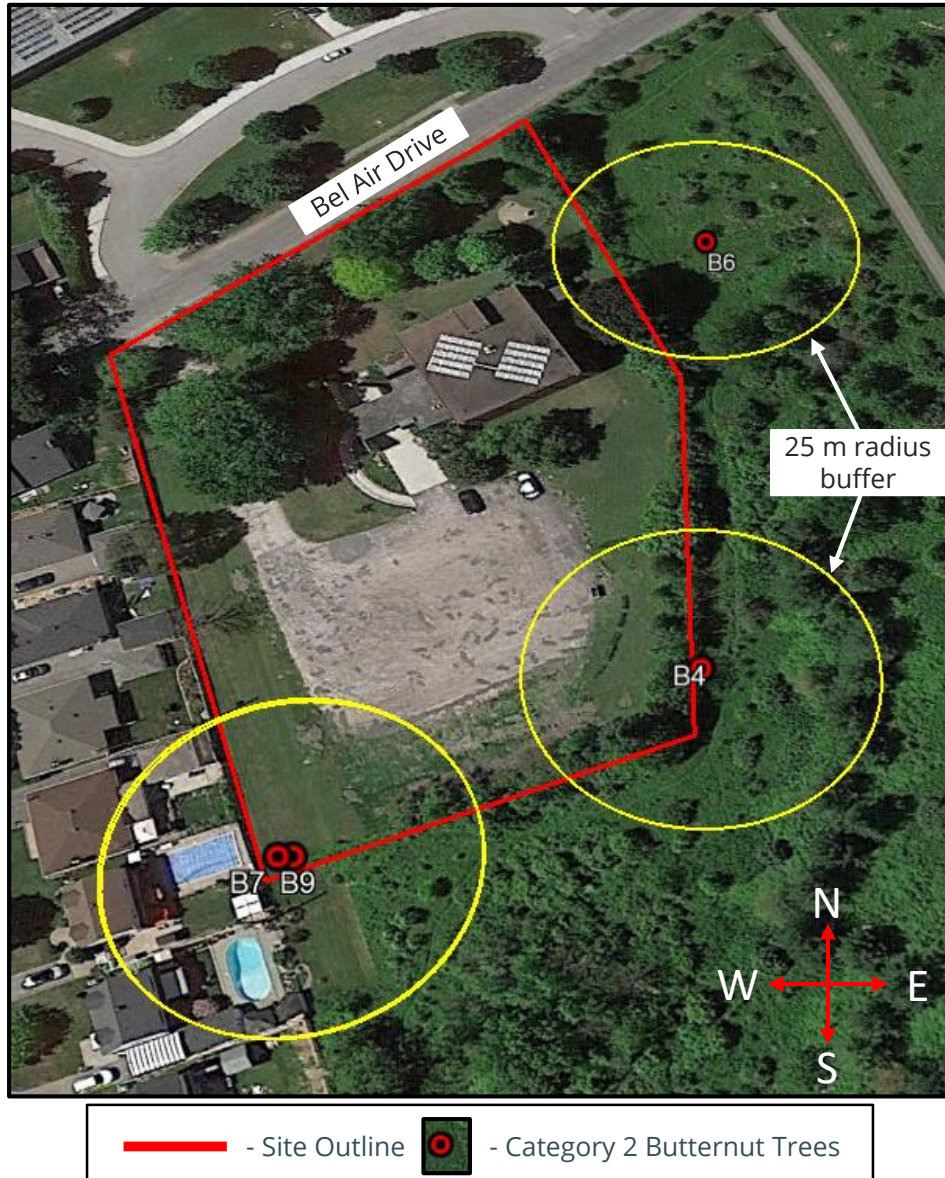
Several Butternut Trees (endangered) were noted within the Site during the Site visit. A follow-up Butternut Health Assessment (BHA) was completed to assess the health status of the Butternut Trees (Refer to Appendix B & C). The BHA documented the presence of nine (9) Butternut Trees within the Site and/or the surrounding area. Of the nine (9) Butternut Trees, four (4) were determined to be Category 1 Butternut Trees (non-retainable) (Trees #1, #2, #3, and #5). Under the rules and regulations of the Ontario Endangered Species Act (ESA), Category 1 Butternut Trees can be removed and/or impacted following acceptance of the BHA, without obtaining an authorization under the Ontario ESA. Butternut Tree #8 was determined to be a hybrid tree based on field characteristics (Refer to Appendix B & C). Butternut Hybrids are not subject to the rules and regulations of the Ontario ESA, and hence can be removed/impacted without obtaining an authorization under the Ontario ESA.

Butternut Trees #4, #6, #7, and #9 were determined to be Category 2 (retainable) Butternut Trees. The locations of the Category 2 Butternut Trees are shown below in Figure 3. The rules and regulations of the Ontario ESA establish a 25 m buffer zone surrounding Butternut Trees. Any development activities that have the potential to harm Butternut Trees are considered an 'impact' to those trees if they occur within 25 m. Butternuts #5 and #7 occur within the redevelopment area and hence will be removed by the redevelopment. Butternut #4 occurs at the property line and will be retained within the rear yard setbacks. Butternut #6 occurs beyond the property line within the adjacent National Capital Commission lands. Although Butternut #6 and #4 will not be removed by the redevelopment, each tree is considered 'impacted' by the redevelopment, as they occur within 25 m.



# FIGURE 3: BUTTERNUT TREE LOCATIONS

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2112 Bel Air Drive, Ottawa, ON



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## 4.0 TREE RETENTION AND MITIGATION MEASURES

### 4.1 Tree Retention Recommendations

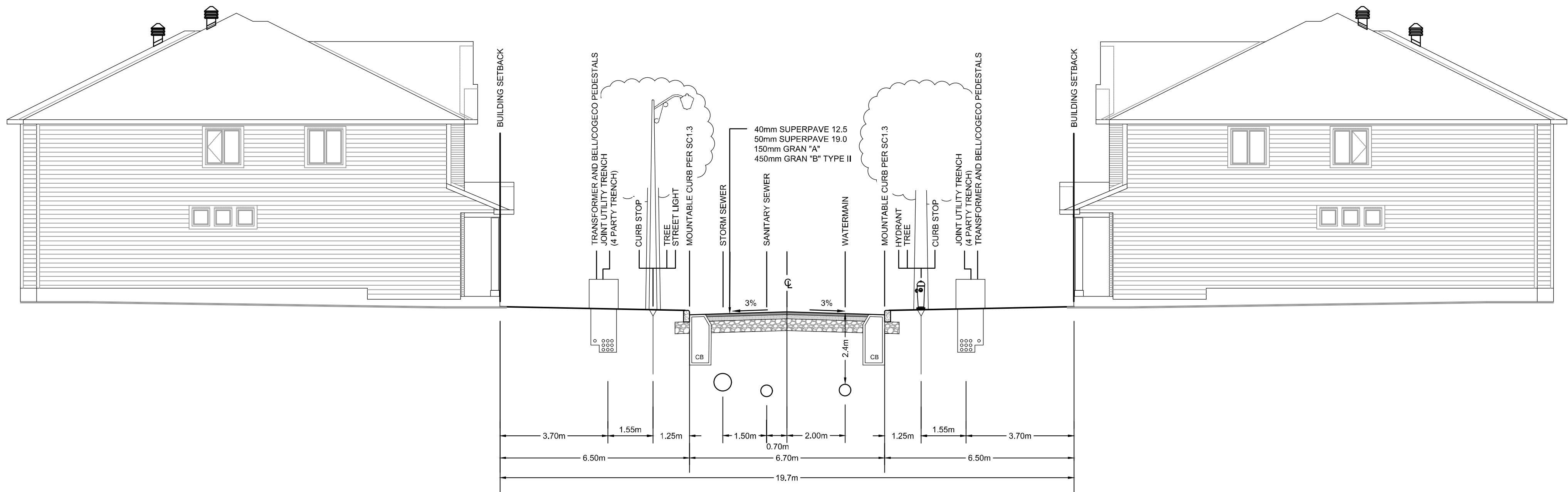
As described above, the majority of the trees and tree stands that are found within the Site consist either of planted landscaping features or recent regrowth stands. A high proportion of the trees found within the Site are non-native and exotic ornamental species. There are no areas of intact forest or any significant trees found within the Site. As described above, the majority of trees that occur within the Site are less than approximately 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. As such, none of the trees that occur within the Site are considered ecologically significant.

Vegetation Features that overlap the redevelopment footprint will be removed during construction. These include Vegetation Features D, H, J, K, L, M, N, O, P, and Q. Vegetation Features which occur along Bel Air Drive at the northern edge of the Site cannot be retained due to the utility and grading requirements, which are shown below in Cross Sections B-B and C-C. However, new trees will be planted along Bel Air Drive as part of the redevelopment project. Vegetation Features A, R, S, T, U, V, W, and X occur adjacent to Bel Air Drive, and will be removed to accommodate the grading and utility requirements.

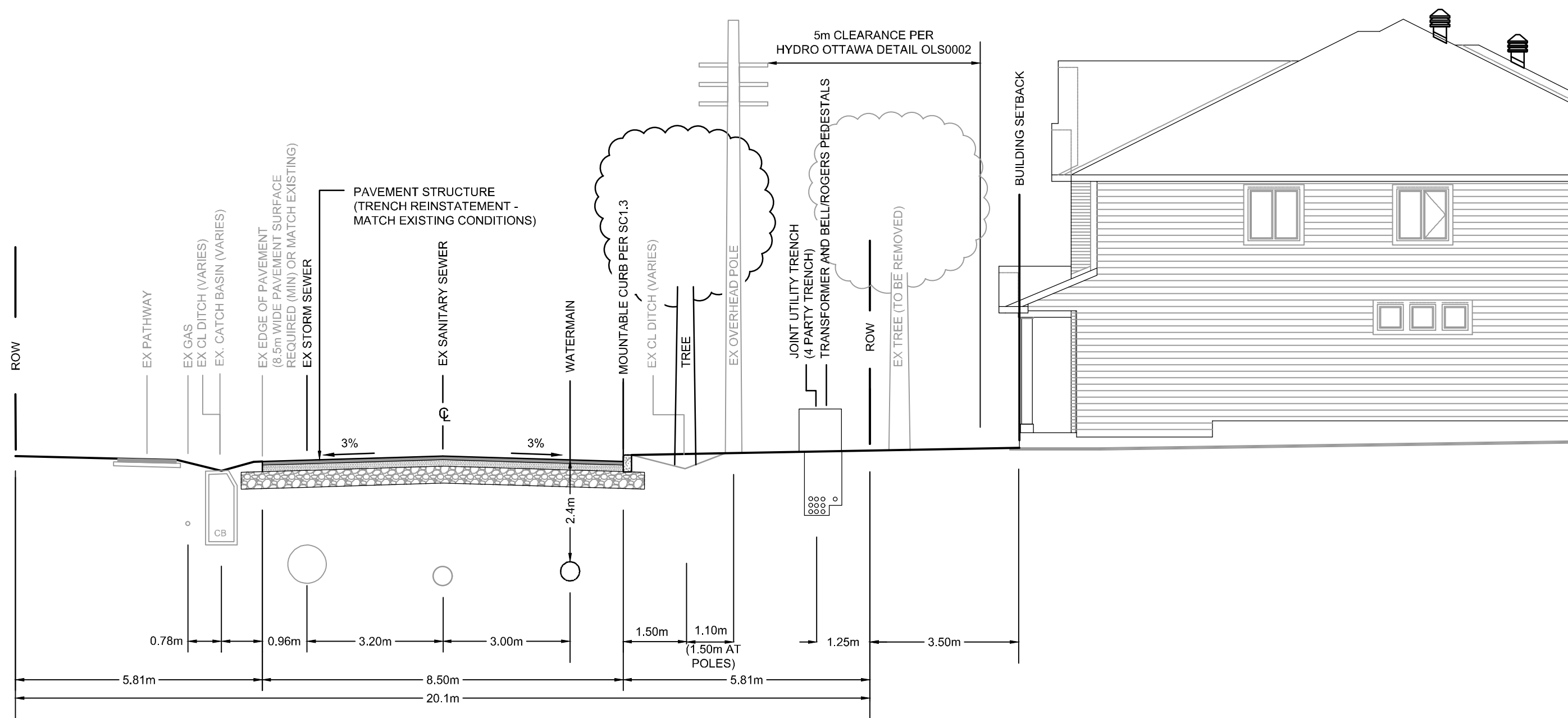
It is anticipated that the grading, servicing, and excavation requirements are such that it unlikely that trees can be retained around the Site edges. It is anticipated that the majority of trees around the Site edges will not be retained. Where feasible and compatible with the grading, servicing, excavation, and redevelopment requirements, trees which occur around the margins of the Site will be retained within the exterior side yard setbacks and/or the rear yard setbacks. As noted above, all tree retention is subject to the redevelopment requirements, and should only be undertaken where feasible and compatible with the redevelopment plans. Mitigation measures to protect retained trees and trees occurring on adjacent properties are discussed below.

*Obtainment of a permit under the City of Ottawa's Urban Tree Conservation Bylaw will be required prior to tree removal.*

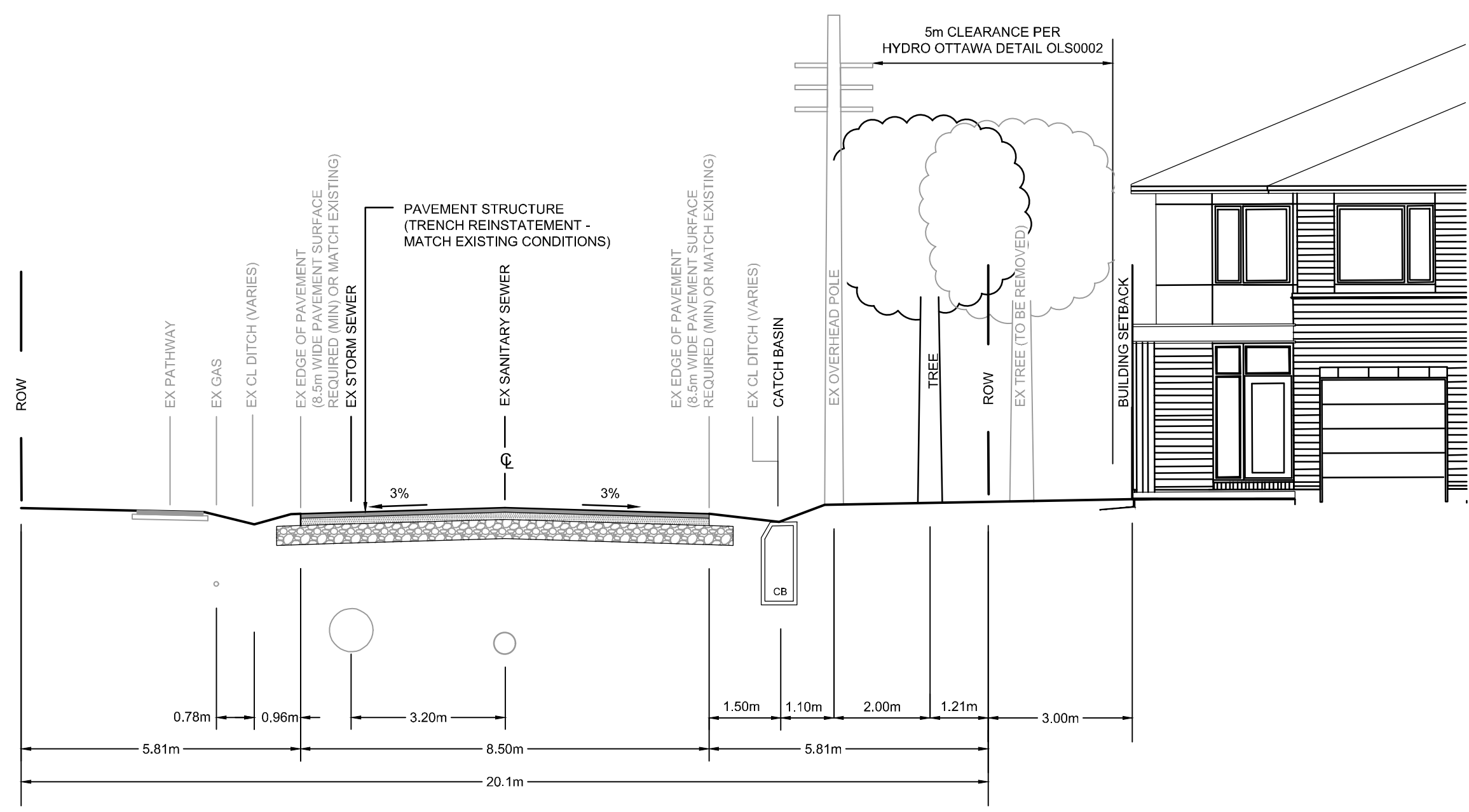




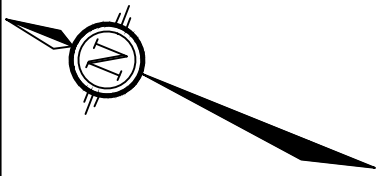
6.7m PRIVATE ROAD CROSS SECTION A-A



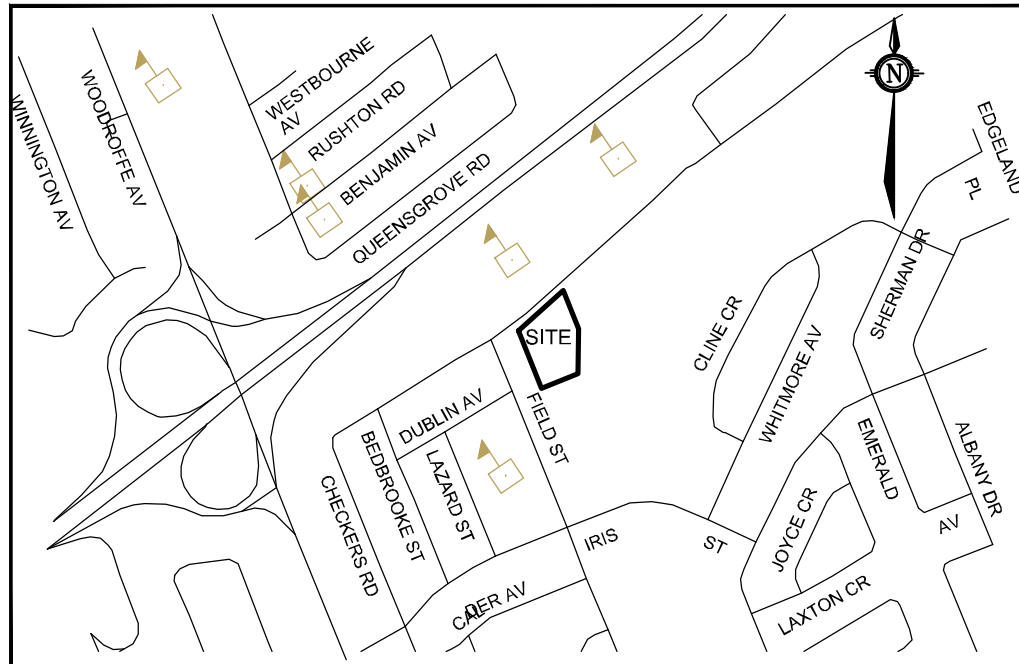
20.12m (66 ft) R.O.W. CROSS SECTION B-B  
BEL-AIR DRIVE (WEST OF PRIVATE ROAD ENTRANCE)



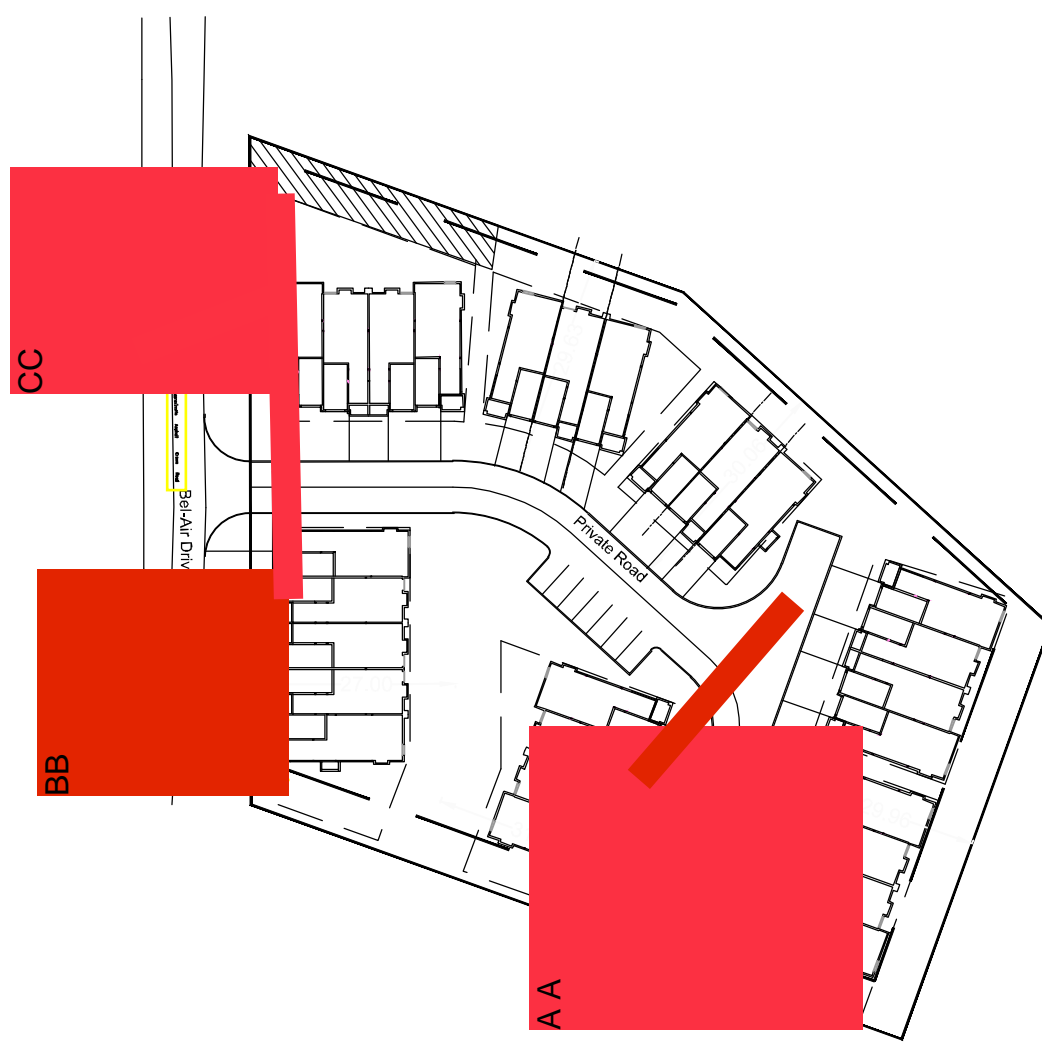
20.12m (66 ft) R.O.W. CROSS SECTION C-C  
BEL-AIR DRIVE (EAST OF PRIVATE ROAD ENTRANCE)



NORTH



KEY PLAN  
N.T.S.



NOTE:  
THE POSITION OF ALL POLE LINES, CONDUITS,  
WATERMAINS, SEWERS AND OTHER  
UNDERGROUND AND OVERGROUND UTILITIES AND  
STRUCTURES IS NOT NECESSARILY SHOWN ON  
THE CONTRACT DRAWINGS, AND WHERE SHOWN,  
THE ACCURACY OF THE POSITION OF SUCH  
UTILITIES AND STRUCTURES IS NOT GUARANTEED.  
BEFORE STARTING WORK, DETERMINE THE EXACT  
LOCATION OF ALL SUCH UTILITIES AND  
STRUCTURES AND ASSUME ALL LIABILITY FOR  
DAMAGE TO THEM.

No.	REVISION	DATE	BY
1.	DRAFT	XXX	BHB

SCALE
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DESIGN	BCS
CHECKED	BHB
DRAWN	MFD
CHECKED	BCS
APPROVED	BHB

FOR REVIEW ONLY	

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Engineers, Planners & Landscape Architects  
Suite 200, 240 Michael Cowpland Drive  
Ottawa, Ontario, Canada K2M 1P6  
Telephone (613) 254-9643  
Facsimile (613) 254-5867  
Website www.novatech-eng.com

LOCATION CITY OF OTTAWA 2112 BEL-AIR DRIVE	PROJECT No. 119000-00
DRAWING NAME CROSS SECTION	REV REV # 1
	DRAWING No. 119000-XS



## 4.2 Butternut Tree Regulatory Requirements

As described above in Section 3.3, Category 1 Butternut Trees and Butternut Hybrids can be removed and/or impacted without obtaining an authorization under the Ontario Endangered Species Act (ESA). The rules and regulations of the Ontario ESA allow proponents to fulfill regulatory requirements for the removal of up to ten (10) Category 2 (retainable) Butternut Trees through the Ministry of Environment, Conservation, and Parks (MECP) online registration system. As described above in Section 3.3, it is anticipated that four (4) Category 2 Butternut Trees will be removed/impacted by the redevelopment (Trees #4, #6, #7, and #9). Impacts to the four (4) Category 2 Butternut Trees have been addressed by registering the activity through the MECP online registry (Confirmation #M-103-5328392570) (Refer to Appendix D). The rules and regulations of the Ontario ESA require that Uniform Developments provide compensation for the impacts to the Category 2 Butternut Trees. Compensation will be provided by planting eighteen (18) Butternut Seedlings and eighteen (18) companion trees. Compensation planting requirements will be fulfilled off-site in collaboration with the Rideau Valley Conservation Foundation (RVCF).



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613-620-2255

mckinleyenvironmental@gmail.com

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



### 4.3 Tree Protection Mitigation Measures

In order to protect retained trees and trees on adjacent properties during the redevelopment, the following tree protection measures should be implemented:

- Restrict grading and other site alteration activities to the designated construction area. Soil compaction, vegetation damage, intrusion of construction equipment, and other potential impacts on the core of the root systems of retained trees should be avoided;
- During each phase of tree clearing and construction, 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); 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 vegetation functions. Alternatively, damaged landscaping features can be replaced with new plantings.

Tree mitigation measures have been proposed to help protect and preserve retained trees. 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.



## 4.4 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 west to east. This will encourage wildlife to leave the work area and move in the direction of the adjacent National Capital Commission (NCC) lands;
- **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 the 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 the commencement of work to ensure that 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 Ministry of Environment, Conservation, and Parks (MECP) must be contacted to discuss how to proceed prior to the 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 the 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 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 15<sup>th</sup> to August 15<sup>th</sup> each year in order to avoid impacting the nests of migratory birds.



## 5.0 REPLANTING

In order to mitigate the loss of woody vegetation due to the clearing of the Site, consideration should be given to replanting trees and shrubs at the back and front of lots. 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.



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## 6.0 CLOSURE

Pending that the regulatory, mitigation, and avoidance measures outlined in this report are implemented appropriately, the redevelopment of the 2112 Bel Air Drive 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,

A handwritten signature in black ink that reads "Andrew McKinley". The signature is written in a cursive, slightly slanted style.

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





## 7.0 REFERENCES

City of Ottawa (2014) Natural Heritage System Overlay (West). Official Plan Schedule L3. .

City of Ottawa (2020) Geo-Ottawa Municipal Mapping Site. <<http://maps.ottawa.ca/geoottawa/>> (Accessed May 18<sup>th</sup>, 2020).

Ontario Ministry of Natural Resources and Forestry (OMNRF) (2010) OMNRF Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005, Second Edition.

Ontario Ministry of Natural Resources and Forestry (OMNRF) (2014) Significant Wildlife Habitat Mitigation Support Tool.

Ontario Ministry of Natural Resources and Forestry (OMNRF) (2020) Natural Heritage Information Center <<http://nhic.mnr.gov.on.ca/>> (Accessed May 18<sup>th</sup>, 2020).

Species at Risk Ontario (SARO) (2020) Species at Risk Ontario. <<http://www.ontario.ca/environment-and-energy/species-risk-ontario-list>> (Accessed May 18<sup>th</sup>, 2020).



McKINLEY ENVIRONMENTAL SOLUTIONS

613-620-2255

[mckinleyenvironmental@gmail.com](mailto:mckinleyenvironmental@gmail.com)

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

# APPENDIX A

## Site Photographs



McKINLEY ENVIRONMENTAL SOLUTIONS

613-620-2255

[mckinleyenvironmental@gmail.com](mailto:mckinleyenvironmental@gmail.com)

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





**Photograph 1:** Looking west at Vegetation Feature A. Vegetation Feature A includes four (4) living stems of Little Leaf Linden and four (4) dead stems (August 9<sup>th</sup>, 2019).



**Photograph 2:** Looking south at Vegetation Feature B. Vegetation Feature B includes three (3) Red Pine (August 9<sup>th</sup>, 2019).



**Photograph 3:** Looking south at Vegetation Feature C. Vegetation Feature C includes a 50 cm dbh Red Pine (August 9<sup>th</sup>, 2019).



**Photograph 4:** Looking south at Vegetation Feature D. Vegetation Feature D includes a 59 cm dbh Butternut Tree (Butternut #1) (August 9<sup>th</sup>, 2019).





**Photograph 5:** Looking west at Vegetation Feature E. Vegetation Feature E includes a row of four (4) living Red Pine and two (2) dead Red Pine, which are overgrown (August 9<sup>th</sup>, 2019).



**Photograph 6:** Looking east at Vegetation Feature F. Vegetation Feature F includes an overgrown White Cedar hedge that includes two (2) Norway Spruce as well as Butternut Tree #4 (August 9<sup>th</sup>, 2019).



**Photograph 7:** Looking north at Vegetation Feature G. Vegetation Feature G includes young recent regrowth shrubs and trees growing along the fence line (August 9<sup>th</sup>, 2019).



**Photograph 8:** Looking north at Vegetation Feature H. Vegetation Feature H includes four (4) Crab Apple trees (August 9<sup>th</sup>, 2019).





**Photograph 9:** Looking north at Vegetation Feature I. Vegetation Feature I is an 84 cm dbh Norway Maple (August 9<sup>th</sup>, 2019).



**Photograph 10:** Looking north at Vegetation Feature J. Vegetation Feature J is a 52 cm dbh Norway Spruce (August 9<sup>th</sup>, 2019).



**Photograph 11:** Looking north at Vegetation Feature K. Vegetation Feature K is a 26 cm dbh Sugar Maple (August 9<sup>th</sup>, 2019).



**Photograph 12:** Looking north at Vegetation Feature L. Vegetation Feature L is a 26 cm dbh Sugar Maple (August 9<sup>th</sup>, 2019).





**Photograph 13:** Looking north at Vegetation Feature M. Vegetation Feature M is a domestic Honey Locust with two (2) stems (August 9<sup>th</sup>, 2019).



**Photograph 14:** Looking north at Vegetation Feature N. Vegetation Feature N is a 17 cm dbh Sugar Maple (August 9<sup>th</sup>, 2019).



**Photograph 15:** Looking west at Vegetation Feature O (foreground). Vegetation Feature O is a 44 cm dbh White Spruce (August 9<sup>th</sup>, 2019).



**Photograph 16:** Vegetation Feature P (foreground) is a 78 cm dbh Silver Maple. Vegetation Feature Q (background) is a 146 cm dbh Silver Maple (August 9<sup>th</sup>, 2019).





**Photograph 17:** Looking south at Vegetation Feature R. Vegetation Feature R is a 36 cm dbh Little Leaf Linden (August 9<sup>th</sup>, 2019).



**Photograph 18:** Looking east at Vegetation Feature S. Vegetation Feature S is a 113 cm dbh Silver Maple (August 9<sup>th</sup>, 2019).



**Photograph 19:** Looking east at Vegetation Feature T. Vegetation Feature T is a 59 cm dbh Norway Maple (August 9<sup>th</sup>, 2019).



**Photograph 20:** Looking south at Vegetation Feature U. Vegetation Feature U is a Silver Maple with six (6) stems (August 9<sup>th</sup>, 2019).





**Photograph 21:** Looking east at Vegetation Feature V. Vegetation Feature V is a Little Leaf Linden with eight (8) stems (August 9<sup>th</sup>, 2019).



**Photograph 22:** Looking south at Vegetation Feature W. Vegetation Feature W is a 22 cm dbh Black Cherry (August 9<sup>th</sup>, 2019).



**Photograph 23:** Looking east at Vegetation Feature X. Vegetation Feature X is a small stand of young Little Leaf Linden, White Cedar, Red Pine, and Honey Locust stems (August 9<sup>th</sup>, 2019).



## APPENDIX B

### Leaf On Butternut Health Assessment (Rose Fleguel 2019)



McKINLEY ENVIRONMENTAL SOLUTIONS

613-620-2255

[mckinleyenvironmental@gmail.com](mailto:mckinleyenvironmental@gmail.com)

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

Rosemary Fleguel  
405 Latourell Rd.  
Mountain, ON  
K0E 1S0  
rosefleguel@gmail.com

James Ireland  
Project Planner/Planning & Development  
240 Michael Cowpland Dr., Suite 200  
Ottawa, ON  
K2M 1P6  
j.ireland@novatech-eng.com

July 11, 2019

RE: 2112 Bel Air Dr., Ottawa  
BHA Report Number: 002-005  
Date(s) of Butternut health assessment: July 10, 2019

Dear James,

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

Best regards,

Rosemary Fleguel  
Designated Butternut Health Assessor #002  
[rosefleguel@gmail.com](mailto:rosefleguel@gmail.com)  
613 858 3678

Enclosures:

1. Information from the Ministry of Natural Resources and Forestry about Butternut and the *Endangered Species Act, 2007*
2. Butternut Health Assessor's Report & Table 4: Data Sheet for Field ID of Butternut Hybrids
3. Copied data forms
4. Electronic copies of the Excel data spreadsheet (BHA Tree Analysis)



Ministry of Natural  
Resources and Forestry

**Species At Risk**  
P.O. Box 7000, 300 Water Street  
Peterborough ON K9J 8M5

Ministère des Richesses  
naturelles et des Forêts

**Espèces en péril**  
C.P. 7000, 300, rue Water  
Peterborough ON K9J 8M5



The enclosed Butternut Health Assessor's Report documents the results of the Butternut health assessment that was conducted by the designated Butternut Health Assessor (BHA) identified in the top section of the report. If there are other Butternut trees (of any size or age) at the site that may be affected by the activity and they are not identified in the enclosed BHA Report, they too must be assessed by a designated BHA.

Butternut is listed as an endangered species on the Species at Risk in Ontario List, and as such, it is protected under the *Endangered Species Act, 2007* (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 Ministry of Natural Resources and Forestry (MNRF) District Manager. Note that MNRF cannot accept photocopies or scanned electronic copies of the data forms.

#### **Note regarding changes:**

If the enclosed BHA Report does not identify which Butternut tree(s) are proposed to be killed, harmed, or taken in Table 1 (i.e., if "unknown" is indicated in the second last column of Table 1), or, if the information in the last two columns of Table 1 has changed since the date this BHA Report was produced, **do not make any edits to the BHA Report**. Instead, please attach a cover letter that identifies which Butternut tree(s) are proposed to be killed, harmed, or taken (by referencing the tree identification numbers) when you submit the enclosed BHA Report to the local MNRF District Manager.

The BHA Report must be submitted at least 30 days prior to registering an eligible activity to kill, harm, or remove a Butternut tree. During this 30 day period, no Butternut trees (of any category) may be killed, harmed, or removed, and MNRF may contact you for an opportunity to examine the trees. If MNRF chooses to examine the trees, a representative of MNRF will contact you using the information you supplied when you submitted the BHA Report.

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 [MNRF 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 MNRF district office to determine whether you will need to seek an authorization (e.g., a permit). A link to the directory of MNRF offices is provided below.

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 information and a copy of the BHA Report (including copies of all data forms) for your records, along with any other documentation you may receive from MNRF should an examination of the trees occur. If you have any questions, please contact your local MNRF district office.

**Links:**

*Endangered Species Act, 2007:*

[http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_07e06\\_e.htm](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](http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm)

MNRF Office Locations:

<https://www.ontario.ca/government/ministry-natural-resources-and-forestry-regional-and-district-offices>



## Butternut Health Assessor's Report Number: 002-005

Rosemary Fleguel  
Designated BHA #002  
405 Latourell Rd.  
Mountain, ON  
K0E 1S0  
rosefleguel@gmail.com

James Ireland  
Project Planner/Planning & Development  
240 Michael Cowpland Dr., Suite 200  
Ottawa, ON  
K2M 1P6  
j.ireland@novatech-eng.com

Site location: 2112 Bel Air Dr., Ottawa

Date(s) of Butternut health assessment: July 10, 2019)

Date BHA Report prepared: July 12, 2019

Map datum used: ☒ NAD83 ☐ WGS84'

Total number of trees assessed in this BHA Report: 6

The assessed trees were numbered on site using white paint or white flagging with black marker.  
The numbers at the site correspond to the tree numbers referenced in this report.

This BHA Report includes the following tables:

- Table 1: Butternut Trees Assessed
- Table 2: Trees Determined by BHA to be Butternut Hybrids
- Table 3: Summary of Assessment Results

Table 1: Butternut Trees Assessed

Tree #	UTM coordinates	Category <sup>1</sup> (1, 2, or 3 <sup>2</sup> )	dbh <sup>3</sup> (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown <sup>4</sup> , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
1	E0440257 N5023393	1	59	N	unknown	

<sup>1</sup> 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.

<sup>2</sup> Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.

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

<sup>4</sup> In this column, "unknown" indicates that at the time of assessment, there are no proposals to kill, harm or take this tree that are known to the BHA.

Tree #	UTM coordinates	Category <sup>1</sup> (1, 2, or 3)	dbh <sup>3</sup> (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: unknown <sup>4</sup> , killed, harmed or taken)	If tree is proposed to be killed, harmed, or taken, indicate reason tree is proposed to be killed, harmed or taken:
4	E0440332 N5023381	2	29	N	unknown	
5	E0440320 N5023477	1	18	N	unknown	
6	E0440335 N5023465	2	0	N	unknown	
7	E0440278 N5023352	2	3	N	unknown	
9	E0440276 N5023352	2	0	n	unknown	

Table 2: Trees Determined by BHA to be Butternut Hybrids

Tree #	UTM coordinates	Method used (genetic testing or field identification):
8	E0440346 N5023436	Field identification

Table 3: Summary of Assessment Results

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
Category 1	2	<ul style="list-style-type: none"> <li>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”.</li> <li>During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees.</li> <li>Category 1 trees may be killed, harmed or taken <b>after</b> the 30 day period that follows submission of this BHA Report to the MNRF District Manager, unless the results of an MNRF 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>”.</li> </ul>
Category 2	4	<ul style="list-style-type: none"> <li>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”.</li> <li>During the 30 day period that follows your submission of this BHA Report to the MNRF District Manager, no Butternut trees (of Category 1, 2, or 3) may be killed, harmed, or taken, and MNRF may contact you for an opportunity to examine the trees.</li> <li>Activities that may kill, harm or take up to a <b>maximum of ten (10)</b> 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.</li> </ul>



Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		<ul style="list-style-type: none"> <li>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: <a href="http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm">http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm</a></li> <li>Activities that may kill, harm or take more than ten (10) Category 2 trees are not eligible to follow the rules in section 23.7 of Ontario Regulation 242/08. Contact the local MNRF district office for information on how to seek an ESA authorization (e.g., a permit) or consider an alternative that would be eligible for the regulation.</li> </ul>
Category 3	0	<ul style="list-style-type: none"> <li>A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered "archivable".</li> <li>Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.</li> <li>Contact the local MNRF district office for information on how to seek an ESA authorization, or consider an alternative that will avoid killing, harming or taking any Category 3 trees.</li> </ul>
Cultivated	0	<ul style="list-style-type: none"> <li>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.</li> <li>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 MNRF district office.</li> <li>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.</li> </ul>
Hybrid	1	<ul style="list-style-type: none"> <li>Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.</li> </ul>

#### Butternut Health Assessor's Comments:

All of the assessed trees except Tree #1 are in the 25m buffer outside of the property boundary.

Because of the obvious hybrid presence on site, leaves were collected from Trees #4, #6 and #9 and sent to OFRI for DNA testing. I intended on collecting leaves from Tree #7 at the same time but the entire crown of this seedling had been cut off sometime between the leaf-on assessment July 7 and my return on July 22. Tree #7 did have hybrid characteristics but didn't score high enough for positive field identification. (See Table 4 attached to data collection form 2s)

This concludes the summary of the BHA Report. A complete BHA Report must also include:

1. All original (hard copy) data forms (i.e., all completed sets of Form 1 and Form 2), and
2. Electronic and printed copies 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).

<b>BHA Report #</b>	<b>19-005</b>	<b>Assessment Date(s)</b>	<b>10-Jul-19</b>		<b>Total # Butternut Trees in BHA Report</b>		<b>6</b>														
<b>BHA ID #</b>	<b>2</b>	<b>BHA Name</b>	<b>Rosemary Fleguel</b>																		
<b>Landowner / Client Name</b>		<b>Uniform Developments</b>																			
<b>Property Location</b>		<b>2112 Bel Air Dr., Ottawa</b>																			
input field data										automatic calculations from field data						Categories:					
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	1: non-retainable, 2: retainable, 3: archivable				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								LC% >= 50 & BC% = 0	LC% >70 & BRC % <20	LC% >70 & BC % <20	Preliminary tree call		
			S <2 m	S >2 m	O <2 m	O >2 m															
1	30	59								185.3	0.0	0.0	0.0	0.0	0.0	1	1	1	1	1	
2										0	0.0	0.0	#####	#####	#####	#####	###	###	###	##	#DIV/0!
3										0	0.0	0.0	#####	#####	#####	#####	###	###	###	##	#DIV/0!
4	90	29	5	0	1	0	1	0	n	91.06	17.5	2.5	19.2	2.7	11.0	1	2	2	2	2	
5	90	18	3	0	1	0	1	3		56.52	12.5	17.5	22.1	31.0	26.5	1	1	1	1	1	
6	100	1	0	0	0	0	0	0		3.14	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2	
7	100	3	0	0	0	0	0	0		9.42	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2	
8										0	0.0	0.0	#####	#####	#####	#####	###	###	###	##	#DIV/0!
9	100	1	0	0	0	0	0	0		3.14	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2	
10										0	0.0	0.0	#####	#####	#####	#####	###	###	###	##	#DIV/0!
11										0	0.0	0.0	#####	#####	#####	#####	###	###	###	##	#DIV/0!





FRMS-PL-F-003

# LABORATORY TEST REPORT

## BUTTERNUT HYBRIDITY TEST

**OFRILS**1235 Queen Street East  
Sault Ste. Marie, Ontario P6A 2E5  
Phone: 705 946 7448  
Fax: 705 946 2030

Report Date

2019-08-15

Report ID: OFRILS-PL-

1946

Page 1 of 2

Client	NOVATECH Engineers, Planners & Architects		
Address	240 Michael Cowpland Dr., Suite 200 Ottawa, Ontario K2M 1P6		
Contact	James Ireland		
Phone:	(613) 254-9643	Fax:	
E-mail:	j.ireland@novatech-eng.com		

MECP Contact	Species At Risk		
Address			
Phone:		Fax:	
E-mail:	SAROntario.ca		

Sample Received On:

2019-07-23

Method: Molecular tests to detect butternut x Japanese walnut hybrids\*

**Test Report:**

Three standard molecular tests were conducted on three samples from Bel Air Drive, Ottawa, Ontario. No hybridity was detected in the results of laboratory tests. To the best of our knowledge the sample represents butternut, *Juglans cinerea*. Sample details may be found on page two of this report.

Please direct any questions to the contact below.

This result and test report relates only to the items tested.

**Laboratory Contact:**

Glenna Halicki Hayden  
Forest Pathology Lab Supervisor  
Ontario Forest Research Institute  
1235 Queen Street East  
Sault Ste. Marie, ON P6A 2E5  
Phone: 705 946 7412 Fax: 705 946 2030  
Email: glenna.halickihayden@ontario.ca  
Web: <http://ontario.ca/ofri>

All appropriate laboratory quality controls were applied in producing the result/s. The results and interpretation are reported to the best of the knowledge and expertise of the lab and is based on the reference method adopted.

Authorized Signature

glenna.halickihayden  
@ontario.ca

Digitally signed by  
glenna.halickihayden@ontario.ca  
DN: cn=glenna.halickihayden@ontario.ca  
Date: 2019.08.15 09:48:28 -04'00'

Name

\* Based on published reference method: Peng Zhao & Keith E. Woeste. 2011. DNA markers identify hybrids between butternut (*Juglans cinerea* L.) and Japanese walnut (*Juglans ailantifolia* Carr.).  
Tree Genetics & Genomes 7:511-533. DOI 10.1007/s11295-010-0352-4.

This report shall not be reproduced except in full, or altered without the written approval of the laboratory.

*All errors and omissions are limited to the cost of the analysis*

Revision No: 1.0

Date: 2014 - 07 - 11



FRMS-PL-F-003

# SAMPLE INFORMATION AND TEST SUMMARY

**OFRILS**1235 Queen Street East  
Sault Ste. Marie, Ontario P6A 2E5  
Phone: 705 946 7448  
Fax: 705 946 2030

Report ID: OFRILS-PL- 1946

Page 2 of 2

Lab ID	Sample Type	Tree ID	Collection Site	UTM Coordinates	LAB RESULT Hybridity Detected	
19124	Foliage	Tree # 4	2112 Bel Air Drive, Ottawa, Ontario	18T 440332 5023381	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
19125	Foliage	Tree # 6	2112 Bel Air Drive, Ottawa, Ontario	18T 440335 5023465	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
19126	Foliage	Tree # 9	2112 Bel Air Drive, Ottawa, Ontario	18T 440276 5023352	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
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					<input type="checkbox"/> NO	<input type="checkbox"/> YES
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					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES
					<input type="checkbox"/> NO	<input type="checkbox"/> YES

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# Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE  
BLOCK LETTERS)

**Shaded fields are mandatory for Butternut Health Assessments**

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.

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

Surveyor ID  
or BHA #

Date (dd/mm/yyyy)

Surveyor Last Name

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

Tree #	Zone	Easting	Northing
1	18	440257	5023393

☐ Crown Class ☐ Live Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs  
☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration  
☐ #Stems ☐ DBH(cm) ☐ Butternut Origin ☐ 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 #	Zone	Easting	Northing
4	18	440332	5023381

☐ Crown Class ☐ Live Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs  
☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration  
☐ #Stems ☐ DBH(cm) ☐ Butternut Origin ☐ 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 #	Zone	Easting	Northing
5	18	440320	5023477

☐ Crown Class ☐ Live Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs  
☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration  
☐ #Stems ☐ DBH(cm) ☐ Butternut Origin ☐ 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


Hybrid characteristics but unconfirmed

Tree #	Zone	Easting	Northing
6	18	440335	5023465

☐ Crown Class ☐ Live Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs  
☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration  
☐ #Stems ☐ DBH(cm) ☐ Butternut Origin ☐ 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


Flushed out but died back, small sucker coming up at root collar

Tree #	Zone	Easting	Northing
7	18	440278	5023352

☐ Crown Class ☐ Live Crown % ☐ Main Stem Length(m) ☐ Below crown ☐ Seed Signs  
☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration  
☐ #Stems ☐ DBH(cm) ☐ Butternut Origin ☐ 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


Hybrid characteristics but unconfirmed - tree had been cut off when I returned

Please enter matching page link code on forms 1 and 2

Page Link

440257

(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

49731 to collect



leaves for DNA test



# Butternut Data Collection FORM 2 (2010 Edition)

(PLEASE USE  
BLOCK LETTERS)

**Shaded fields are mandatory for Butternut Health Assessments**

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.

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

Surveyor ID  
or BHA #

Date (dd/mm/yyyy)

Surveyor Last Name

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

Tree #  Zone  Easting  Northing

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

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration

#Stems  DBH(cm)

Butternut Origin ☐ Natural ☐ Planted ☐ Unknown

Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown

#Epic-Live  #Open  #Sooty

#Epic-Dead  Root

Bark Type  =<2m  >2m

# Callused Wounds

Metres from badly cankered tree  
☐ < 40 ☐ > 40 ☐ None Found

Competing Species


Field tested-hybrid confirmed - see attached Table 4

Tree #  Zone  Easting  Northing

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

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration

#Stems  DBH(cm)

Butternut Origin ☐ Natural ☐ Planted ☐ Unknown

Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown

#Epic-Live  #Open  #Sooty

#Epic-Dead  Root

Bark Type  =<2m  >2m

# Callused Wounds

Metres from badly cankered tree  
☐ < 40 ☐ > 40 ☐ None Found

Competing Species


Tree #  Zone  Easting  Northing

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

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration

#Stems  DBH(cm)

Butternut Origin ☐ Natural ☐ Planted ☐ Unknown

Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown

#Epic-Live  #Open  #Sooty

#Epic-Dead  Root

Bark Type  =<2m  >2m

# Callused Wounds

Metres from badly cankered tree  
☐ < 40 ☐ > 40 ☐ None Found

Competing Species


Tree #  Zone  Easting  Northing

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

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration

#Stems  DBH(cm)

Butternut Origin ☐ Natural ☐ Planted ☐ Unknown

Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown

#Epic-Live  #Open  #Sooty

#Epic-Dead  Root

Bark Type  =<2m  >2m

# Callused Wounds

Metres from badly cankered tree  
☐ < 40 ☐ > 40 ☐ None Found

Competing Species


Tree #  Zone  Easting  Northing

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

☐ Twig Dieback ☐ Branch Dieback ☐ Defoliation ☐ Discolouration

#Stems  DBH(cm)

Butternut Origin ☐ Natural ☐ Planted ☐ Unknown

Male Flowers ☐ Female Flowers ☐ Seed Set ☐ None

Assess below live crown

#Epic-Live  #Open  #Sooty

#Epic-Dead  Root

Bark Type  =<2m  >2m

# Callused Wounds

Metres from badly cankered tree  
☐ < 40 ☐ > 40 ☐ None Found

Competing Species


Please enter matching page link code on forms 1 and 2

Page Link

440257

(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

49731

Table 4: Data Sheet for Field Identification of Butternut Hybrids

BHA name:	R. FLEQUEL					Tree ID #:		Tree ID #:		Tree ID #:
BHA ID #:	002					Tree ID #:		Tree ID #:		Tree ID #:
BHA Report #:	19-005					Tree ID #:		Tree ID #:		Tree ID #:
Assessment Date(s):	10-JUL-19					Tree ID #:		Tree ID #:		Tree ID #:
Tree location (site address):	2112 Bel Air Dr Ottawa					Tree ID #:		Tree ID #:		Tree ID #:
Client name:						Tree ID #:		Tree ID #:		Tree ID #:
Traits (must evaluate at least five traits):						Score Assigned:	Score Assigned:	Score Assigned:	Score Assigned:	Score Assigned:
Leaf Retention										
Dormant Terminal Bud										
Dormant Twigs										
Lenticel Shape on New Twigs										
Pith Color of 1-Year Twig						1	2	1		
Leaf Scar						0	1	1		
Leaf Length						1	1	1		
Color of Bark Fissures on Mature Trees										
Green Hull Characteristics										
Nut Shape										
Catkin Length When Fully Extended and Shedding Pollen										
How to interpret total score: 0 to 3 = Butternut; 4 or greater = Hybrid						2	4	3		
Total:										



## APPENDIX C

### Leaf Off Butternut Health Assessment (Rose Fleguel 2019)



McKINLEY ENVIRONMENTAL SOLUTIONS

613-620-2255

[mckinleyenvironmental@gmail.com](mailto:mckinleyenvironmental@gmail.com)

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

Rose Fleguel  
405 Latourell Rd.  
Mountain, ON  
K0E 1S0  
613 858 3678  
[rosefleguel@gmail.com](mailto:rosefleguel@gmail.com)

Matt MacDougall, Project Manager  
Uniform Developments  
117 Centrepont Dr., Suite 300  
Ottawa, ON  
K2G 5X3  
[mmacdougall@uniformdevelopments.com](mailto:mmacdougall@uniformdevelopments.com)

January 25, 2019

RE: 2112 Bel Air Dr., Ottawa  
BHA Report Number: 19-002  
Date(s) of Butternut health assessment: January 25, 2019

Dear Matt,

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

**Links:**

Endangered Species Act, 2007:

[http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_07e06\\_e.htm](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](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](http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html)



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](mailto: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

Matt MacDougall, Project Manager  
Uniform Developments  
117 Centrepoint Dr., Suite 300  
Ottawa, ON  
K2G 5X3

Property description: 2112 Bel Air Dr., Ottawa  
BHA Report Number: 19-002  
Date(s) of Butternut health assessment: January 25, 2019  
Date BHA Report prepared: January 25, 2019

Map datum used: ☒ NAD83 ☐ WGS84

Total number of trees in this BHA Report: 7

The assessed trees were 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 <sup>1</sup> (1, 2, or 3 <sup>2</sup> )	dbh <sup>3</sup> (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: killed, harmed or taken)	Reason tree is proposed to be killed, harmed or taken:
1	E0440257 N5023393	2	59	N	unknown	
2	E0440287 N5023326	1	15	N	unknown	
3	E0440286 N5023330	1	8	N	unknown	
4	E0440332 N5023381	2	29	N	unknown	

<sup>1</sup> 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.

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

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



Tree #	UTM coordinates	Category <sup>1</sup> (1, 2, or 3 <sup>2</sup> )	dbh <sup>3</sup> (cm)	Cultivated? (Y/N)	Proposed to be: (enter one: killed, harmed or taken)	Reason tree is proposed to be killed, harmed or taken:
5	E0440320 N5023477	2	18	N	unknown	
6	E0440335 N5023465	2	0	N	unknown	
7	E0440278 N5023352	2	0	N	unknown	

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

Tree #	UTM coordinates	Category (1, 2, or 3)	dbh <sup>4</sup> (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	2	<ul style="list-style-type: none"> <li>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”.</li> <li>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.</li> <li>Category 1 trees may be killed, harmed or taken <b>after</b> 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>”.</li> </ul>
Category 2	5	<ul style="list-style-type: none"> <li>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</li> </ul>

Result:	Total #:	Important information for persons planning activities that may affect Butternut:
		<p>considered “retainable”.</p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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: <a href="http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm">http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_080242_e.htm</a></li> </ul>
Category 3	0	<ul style="list-style-type: none"> <li>A Category 3 tree is one that may be useful in determining sources of resistance to Butternut Canker, and is considered “archivable”.</li> <li>Category 3 trees are not eligible to be killed, harmed or taken under section 23.7 of Ontario Regulation 242/08.</li> <li>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: <a href="http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/MNR_SAR_HOW_DO_GET_PER_EN.html">http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/MNR_SAR_HOW_DO_GET_PER_EN.html</a></li> </ul>
Cultivated	0	<ul style="list-style-type: none"> <li>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.</li> <li>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: <a href="http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html">http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html</a></li> <li>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.</li> </ul>
Hybrid	0	<ul style="list-style-type: none"> <li>Hybrid Butternut trees are not protected under the ESA, but their removal may be subject to municipal by-laws and other legislation.</li> </ul>

**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).

<b>BHA Report #</b>	<b>19-002</b>	<b>Assessment Date(s)</b>	<b>25-Jan-19</b>		<b>Total # Butternut Trees in BHA Report</b>		<b>7</b>													
<b>BHA ID #</b>	<b>2</b>	<b>BHA Name</b>	<b>Rosemary Fleguel</b>																	
<b>Landowner / Client Name</b>			<b>Uniform Developments</b>																	
<b>Property Location</b>		<b>2112 Bel Air Dr., Ottawa</b>																		
input field data										automatic calculations from field data						Categories:				
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	1: non-retainable, 2: retainable, 3: archivable				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								LC% >= 50 & BC% = 0	LC% >70 & BRC % <20	LC% >70 & BC % <20	Preliminary tree call	
			S <2 m	S >2 m	O <2 m	O >2 m														
1	100	59	0	0	13	0	0	0	n	185.3	65.0	0.0	35.1	0.0	17.5	1	2	1	2	2
2	100	15	0	0	8	3	0	0		47.1	55.0	0.0	116.8	0.0	58.4	1	1	1	1	1
3	100	8	0	0	6	5	0	0		25.12	55.0	0.0	218.9	0.0	109.5	1	1	1	1	1
4	100	29	0	0	1	0	0	0	n	91.06	5.0	0.0	5.5	0.0	2.7	1	2	2	2	2
5	100	18	0	0	1	0	0	3		56.52	5.0	15.0	8.8	26.5	17.7	1	2	2	2	2
6	100	2	0	0	0	0	0	0		6.28	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2
7	100	3	0	0	0	0	0	0		9.42	0.0	0.0	0.0	0.0	0.0	2	2	2	2	2
8										0	0.0	0.0	#####	#####	#####	#####	###	###	##	#DIV/0!
9										0	0.0	0.0	#####	#####	#####	#####	###	###	##	#DIV/0!
10										0	0.0	0.0	#####	#####	#####	#####	###	###	##	#DIV/0!

## Butternut Data Collection Form 1 - 2010 Edition

Surveyor ID  
or BHA # 002

(PLEASE USE BLOCK LETTERS)

Date (dd/mm/yyyy)

25 - 01 - 2019

Shaded fields are mandatory for Butternut Health Assessments

Surveyor  
Contact

First ROSE Last FLEKVEL

Email

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

Property  
Owner

First MATT Last MACDOUGALL

(check if same  
as surveyor)

or Company UNIFORM DEVELOPMENTS

Email

Telephone ( ) Telephone Other (613) 225-0770 X 239

Property Owner's Mailing address

Address 117 CENTREPOINT DR #300 Postal Code K2S5X3 Prov. ON

City OTTAWA

Tree Location (if different from mailing address)

Address/(911#) 2112 BELAIR DR

Township Lot Con

City OTTAWA

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				
Poor Vigor: <50% Live Crown or >50% Live Crown + heavily cankered stem				
Dead				

Historically, do some trees produce seeds? ☐ Y ☐ N ☐ UnknownEstimated area containing butternut  
for properties > 1 acre (0.4 hectares): ☐ Acres ☐ HectaresOverall 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 Texture

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

## Soil Depth

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

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

Page Link

440257

(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

49731



# 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)

25 - 01 - 2019

Surveyor Last Name

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

Tree # Zone Easting Northing

1 1 8440257 5023393

Crown Class 100 Live Crown % 2 Main Stem Length(m) Below crown Seed Signs

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Extensive canker in crown. Ottawa Hydro has hacked away at E crown

Tree # Zone Easting Northing

2 1 3440287 5023326

Crown Class 100 Live Crown % 8 Main Stem Length(m) Below crown Seed Signs

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

2 stems dead + broken

Tree # Zone Easting Northing

3 1 8440286 5023330

Crown Class 100 Live Crown % 10 Main Stem Length(m) Below crown Seed Signs

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

1 stem dead

Tree # Zone Easting Northing

4 1 8440332 5023381

Crown Class 100 Live Crown % 2 Main Stem Length(m) Below crown Seed Signs

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Tree # Zone Easting Northing

5 1 8440320 5023477

Crown Class 100 Live Crown % 2 Main Stem Length(m) Below crown Seed Signs

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Please enter matching page link code on forms 1 and 2

Page Link

440257

(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

49731



# 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)

25 - 01 - 2019

Surveyor Last Name

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

Tree # Zone Easting Northing

6184403355023465

Crown Class 100 Live Crown % 2 Main Stem Length(m) Below crown Seed Signs

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Tree # Zone Easting Northing

7184402785023352

Crown Class 100 Live Crown % 2 Main Stem Length(m) Below crown Seed Signs

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Tree # Zone Easting Northing

1

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

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Tree # Zone Easting Northing

1

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

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Tree # Zone Easting Northing

1

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

Butternut Origin Natural Planted Unknown Male Flowers Female Flowers Seed Set None

Assess below live crown

#Epic-Live #Epic-Dead Bark Type # Callused Wounds

Metres from badly cankered tree

Competing Species

Please enter matching page link code on forms 1 and 2

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Suite 233, 266 Charlotte St.  
Peterborough, ON, K9J 2V4  
www.fgca.net

49731

## APPENDIX D

### Confirmation of Butternut Registration



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McKINLEY ENVIRONMENTAL SOLUTIONS

613-620-2255

[mckinleyenvironmental@gmail.com](mailto:mckinleyenvironmental@gmail.com)

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



## **CONFIRMATION OF REGISTRATION**

Form Name: Notice of Butternut Impact

Date Registration Filed: 09/24/2019

Confirmation ID: M-103-5328392570

Version Number: 001

Update Date:

### **UNIFORM DEVELOPMENTS**

117 CentrepoinTE DR , SUITE, 300  
Ottawa, ON K2G5X3

Dear Sir/Madam,

You have registered under section 23.7 of Ontario Regulation Reg. 242/08 of the Endangered Species Act, 2007 and your Notice of Butternut Impact Form has been received by the Ministry of Natural Resources and Forestry for activities impacting Butternut located at:

2112 Bel Air DR  
Ottawa, ON K2C0W9

This confirmation applies to the 4 Category 2 (retainable) butternut trees identified in the information provided to the Ministry through the Registry and as referenced in the Butternut Health Assessor's Report # 002005.

Please note, you may only kill, harm or take those Category 2 (retainable) butternut trees from the above-referenced report that you have identified in the information provided to the Ministry through the Registry with the following tree number (s): 4; 6; 7; 9.

A copy of this Confirmation of Registration must be kept on the site where the impacts to Butternut are occurring and you are required to show this Confirmation of Registration upon the request of the Ministry. Please refer to Ontario Regulation 242/08 for requirements that apply to your activity.

Any questions related to this registration and/or the Natural Resources Registry should be directed to:

Registry and Approval Services Centre  
Ministry of Natural Resources and Forestry  
300 Water Street  
Peterborough, ON, K9J8M5  
Toll-free: 1-855-613-4256  
E-mail: [mn.rasc@ontario.ca](mailto:mn.rasc@ontario.ca)