HEAFEY 989.2 Tree Conservation Report 37 Wildpine Court, Stittsville, Ottawa

November 30, 2023

Submitted to: Raad Akrawi

**KILGOUR & ASSOCIATES LTD.** 

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# **TABLE OF CONTENTS**

| 1.0  | INTRODUCTION  | 3  |
|------|---|----|
| 2.1  | PROPERTY INFORMATION  | 5  |
| 3.0  | EXISTING CONDITIONS   |    |
|      | TREE INVENTORY  | 5  |
|      | ECOLOGICAL SIGNIFICANCE OF TREES ON SITE  | 6  |
|      | OTHER NATURAL ENVIRONMENT ELEMENTS  | 6  |
| 0.0  | 3.3.1 Surface Water Features  | _  |
|      | 3.3.2 Steep Slopes  |    |
|      | 3.3.3 Valued Woodlots   |    |
|      | 3.3.4 Significant Woodlands   |    |
|      | 3.3.5 Greenspace Linkages   |    |
|      | 3.3.6 Distinctive Trees   |    |
|      | 3.3.7 Unique Ecological Features  |    |
| 4.0  | PROPOSED DEVELOPMENT  |    |
| 5.0  | MITIGATION MEASURES   | 10 |
| 5.1  | SITE PREPARATION AND CONSTRUCTION   | 10 |
| 5.2  | TREE PLANTING RECOMMENDATIONS   | 11 |
| 6.0  | CLOSURE   |    |
| 7.0  | LITERATURE CITED  | 12 |
| List | t of Figures  |    |
| Figu | ure 1 Existing conditions on the Siteure 2 Existing trees on the Siteure 3 Map showing the proposed development of the Site | 8  |
| List | t of Tables   |    |
| Tah  | le 1 Contact information for the property owner/applicant and arborist  | 5  |



## 1.0 INTRODUCTION

This Tree Conservation Report (TCR) was prepared by Kilgour & Associates Ltd. (KAL) on behalf of Wildpine Trails Inc. in support of development of the property located at 37 Wildpine Court in Stittsville, (the "Site")

A TCR is required for all Plans of Subdivision, Site Plan Control Applications, Common Elements Condominium Applications, and Vacant Land Condominium Applications where there is a tree of 10 cm in diameter at breast height (DBH) or greater on a site and/or if there is a tree on an adjacent site that has a critical root zone (CRZ) extending into the proposed work area. A "tree" is defined as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 450 cm at physiological maturity. The CRZ is calculated as DBH x 10 cm.

The removal of trees on the Site cannot occur until written approval of the TCR has been granted through a tree permit as per the City of Ottawa's Tree Protection By-law. The approval of the TCR will come in the form of a letter (the tree permit) from the General Manager<sup>1</sup> with conditions specific to the Site, tree retention, and associated tree protection and tree removal. A copy of the report must be available on the Site during tree removal, grading, construction, or any other site alteration activities, and for the duration of construction on the Site.

### 2.0 PROPERTY INFORMATION

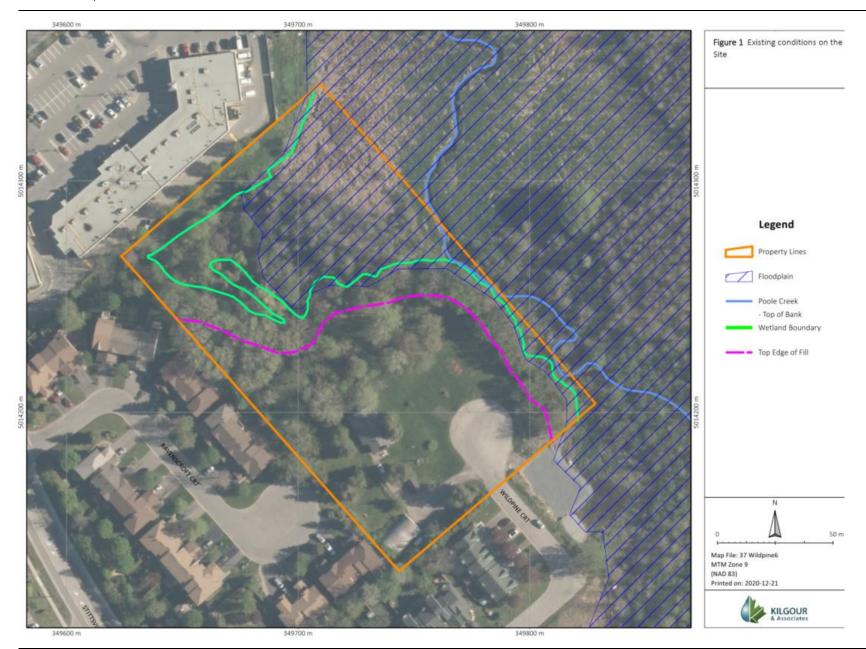
The Site is owned by Wildpine Trails Inc. It is approximately 2 ha in size and is zoned as R3XX[1046] – Residential Third Density Zone. At the time of writing this report the Site was dominated by wooded areas including those part of the Stittsville Wetland Complex (not a provincially significant wetland). It also contained open lawn space, a paved cul-de-sac and a separate corrugated steel garage. Portions of Poole Creek and the associated regulated floodplain of Poole Creek also occur on the Site.

The Site is surrounded by:

- A shopping plaza, a stormwater management pond, and the Stittsville Wetland Complex to the north.
- Poole Creek and the Stittsville Wetland Complex to the east.
- A residential community on Wildpine Court to the south.
- A residential community on Ravenscroft Court to the west.

<sup>&</sup>lt;sup>1</sup> General Manager of the Public Works & Environmental Services Department or the General Manager of the Planning, Infrastructure and Economic Development Department of the City of Ottawa, or their designate.







## 2.1 Property Owner/Applicant and Arborist Contact Information

Table 1 Contact information for the property owner/applicant and arborist

| Organization   | Role Contact Person |                                   | Phone          | Email Address                  |  |
|--|---------------------|-----------------------------------|----------------|--------------------------------|--|
|  |                     |                                   | Number         |                                |  |
| Wildpine Trails Inc.   | Proponent           | Raad Akrawi<br>Project Manager    | (613) 415 9387 | rakrawi@groupeheafey.com       |  |
| Kilgour & Associates Ltd.<br>2285-C St. Laurent Blvd., Unit 16,<br>Ottawa, ON, K1G 4Z6 | Arborist            | Robert Hallett, Biologist         | (613) 367 5549 | RHallett@KilgourAssociates.com |  |
| Kilgour & Associates Ltd.<br>2285-C St. Laurent Blvd., Unit 16,<br>Ottawa, ON, K1G 4Z6 | Arborist            | Anthony Francis, Senior Ecologist | (613) 367 5556 | AFrancis@KilgourAssociates.com |  |

#### 2.1.1 Qualifications of Arborist

**Robert Hallett** (Dipl.T) is a biologist with a broad background in monitoring terrestrial environments. Rob has worked on a wide range of projects relating to species at risk (SAR), Invasive species, terrestrial and aquatic habitat assessments, environmental effects monitoring. He has extensive experience completing collection and assessments in support of tree conservation reports. As a biologist at KAL, Rob regularly participates in the production of TCRs, Environmental Impact Statements, and Integrated Environmental Reviews for land development projects throughout the region. Rob is a certified Butternut Health Assessor (BHA #546).

Anthony Francis (Ph.D.) is a Senior Ecologist with 20 years of consulting experience to both government agencies and private industry. He has worked on a diversity of projects relating to species at risk (SAR), invasive species, terrestrial and aquatic habitat, environmental effects monitoring and mitigation, and fate/effects of contaminants. Within each of these subject areas, Dr. Francis has completed projects addressing specific site concerns and broader policy initiatives. Dr. Francis' academic background is in spatial ecology with a focus on tree species diversity. As a Senior Ecologist at KAL, he regularly completes TCRs, Environmental Impact Statements, and Integrated Environmental Reviews for land development projects throughout Ottawa and eastern Ontario. He is also a certified Butternut Health Assessor (BHA #104).

## 2.2 Additional Applications

Not applicable

## 3.0 EXISTING CONDITIONS

## 3.1 Tree Inventory

An inventory of trees on the Site was performed on November 24, 2023, following guidelines set forth by the City of Ottawa (2020). All trees with a DBH  $\geq$  10 cm having a potential to be removed under the proposed development were identified, enumerated, mapped, their DBH measured, and their general



health and condition documented (Figure 1 see Appendix A for detailed tree conditions). Trees within the forested area that are not going to be directly impacted by development were assessed for their condition and the likelihood that they could pose a risk to persons or developed property. No trees adjacent to the existing homes or proposed development were considered to pose a risk to persons or property.

## 3.2 Ecological Significance of Trees on Site

The site contains three Butternuts (two dead and one live) a federally and provincially significant tree species that is listed as Endangered under the *Endangered Species Act* (ESA). The live Butternut was assessed as a Category 3 Butternut in 2020. Re-evaluation of this Butternut is not required as it is more than the requisite distance from development so as not to harm it or its life function.

The Site also contains White Oak (*Quercus* alba) and one Siberian Elm (*Ulmus pumilia*), both of which are regionally rare species in the Ottawa area (Brunton, 2005), though Siberian Elm is a non-native species.

Despite the urban context of these trees, they are likely to provide some function as a vegetated buffer between Poole Creek and the Stittsville Wetland Complex and the adjacent development areas. The forested areas also provide some role in the regulation of relative humidity, sequestration of carbon and removal of pollutants, wind shielding, shading and reduction of urban heat island effects. They are also likely to provide some functions related to the filtration of dust, noise, and light pollution. The trees on the Site may provide some habitat structure in the surrounding urban landscape. However, the trees on the Site likely only provide habitat for common bird and small mammal species in the Ottawa area and not species of significance (i.e., species that are at risk, rare, or provincially or federally significant).

Given their urban context, the trees on the Site are unlikely to play a role in the regulation of relative humidity, sequestration of carbon and removal of pollutants, wind-shielding, shading and reduction of urban heat island effects, and filtration of dust, noise, and light pollution. They may provide some habitat structure in the surrounding urban landscape. However, the trees on the Site likely only provide habitat for common bird and small mammal species in the Ottawa area and not species of significance (i.e., species that are at risk, rare, or provincially or federally significant).

#### 3.3 Other Natural Environment Elements

#### 3.3.1 Surface Water Features

The Site includes a portion of the Stittsville Wetland Complex. The total wetland area on the Site is approximately 0.6 ha and consists of several types of wetland: meadow marsh (Ecological Land Classification code MASO1-4), cattail marsh (MAS3-1), deciduous thicket (tall shrub) swamp (SWT3-2), mixed swamp (SWM4-1), and deciduous swamp (SWD6; Figure 2). The upland edge of the wetland on the Site contains a considerable amount of fill that extends approximately 15 m out from the wetland. This upland edge of the wetland is degraded as indicated by the presence of rubble, trash, and non-native and/or invasive species.

The southeastern corner of the Site contains a small portion of the channel of Poole Creek and the eastern edge of the Site contains floodplain associated with Poole Creek.



Mitigation measures to prevent impacts to these surface water features are provided in the Environmental Impact Statement prepared for the project (KAL, 2020).

#### 3.3.2 Steep Slopes

The Site does not contain any steep slopes, valleys, or escarpments.

#### 3.3.3 Valued Woodlots

The Site does not contain any woodlots designated as Urban Natural Features or Natural Environment Areas, areas evaluated in the *City of Ottawa Urban Natural Areas Environmental Evaluation Study* (UNAEES; Muncaster Environmental Planning Inc. and Brunton Consulting Services, 2005), or other areas that meet the criteria used in the UNAEES.

## 3.3.4 Significant Woodlands

The Site does not contain any significant woodlands per *Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment* (City of Ottawa, 2018). Nor are any such features located within 120 m of the Site.

#### 3.3.5 Greenspace Linkages

The Site does not contain any greenspace linkages identified in the Greenspace Master Plan (City of Ottawa, 2016) or as may occur in the larger landscape.

#### 3.3.6 Distinctive Trees

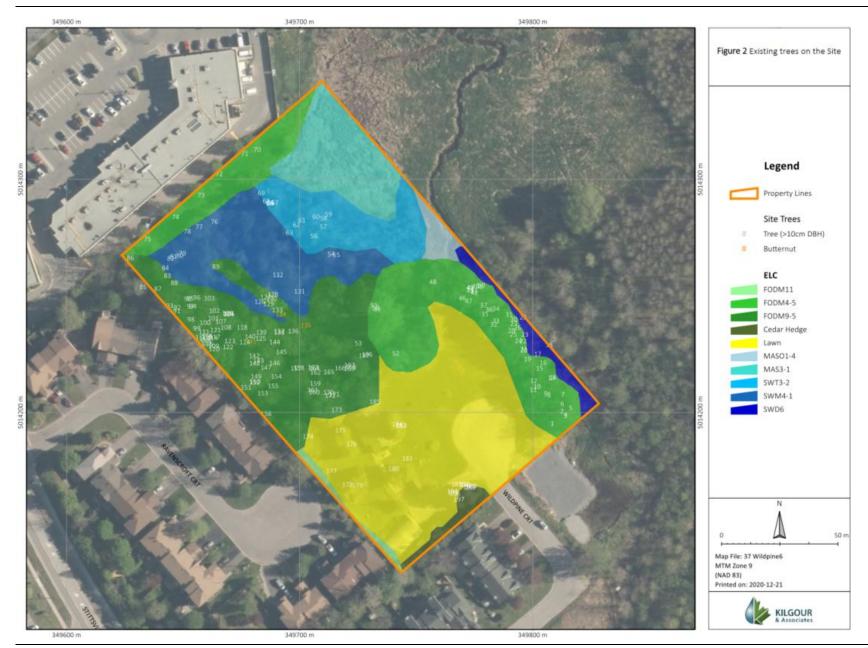
The site contains 11 distinctive trees (Appendix A).

### 3.3.7 Unique Ecological Features

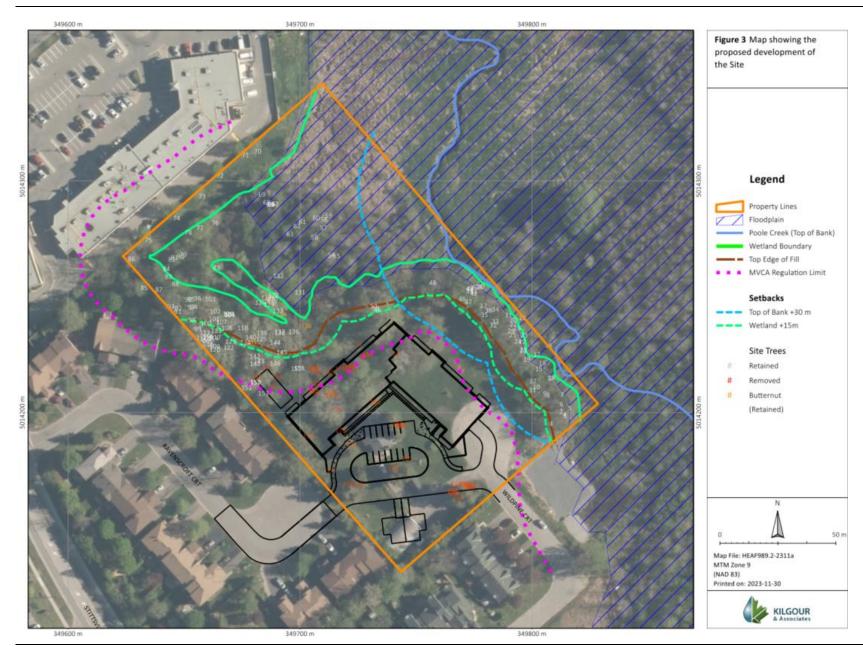
The Fresh-Moist Deciduous Bitternut Hickory Deciduous Forest (FODM9-5; Figure 2) on the Site is Significant Wildlife Habitat for Special Concern and Rare Wildlife Species (MNRF, 2015a) due to an observation of Eastern Wood-pewee (*Contopus virens*; Special Concern under ESA and SARA) here by KAL in 2020. All treed communities on-site are candidate Significant Wildlife Habitat for Bat Maternity Colonies because they are treed ecosites in which more than 10 Big Brown Bats (*Eptesicus fuscus*) and five adult female Silver-Haired Bats (*Lasionycteris noctivagans*) may occur (MNRF, 2015a). Big Brown Bats and Silver-Haired Bats were detected on the Site via acoustic monitoring by KAL in 2020, but the number and/or gender of each bat species could not be discerned from the acoustic data. It is therefore possible that Significant Wildlife Habitat for Bat Maternity Colonies exists on the Site but this cannot be confirmed with the acoustic data that were collected (KAL, 2020).

The Site does not contain other unique ecological features as may be identified in the Natural Heritage Information Centre (MNRF, 2020), Ecological Land Classification (Lee et al., 1998), or other Ministry of Natural Resources and Forestry data.











## 4.0 PROPOSED DEVELOPMENT

The proposed development is limited to the southern half of the Site and consist of a single four-story apartment building with 94 units and a small parking area (15 spaces), and two semi-detached homes in the southwestern corner of the Site (Figure 3).

### 5.0 MITIGATION MEASURES

## 5.1 Site Preparation and Construction

To effectively minimize the impacts on the site trees, the following mitigation measures must be applied during site preparation and construction (City of Ottawa, 2018a; City of Ottawa, 2015):

- Tree removal should be limited to that which is necessary to accommodate construction.
  - o Trees that occur on the property boundary or on adjacent lands will be retained.
- Tree and vegetation clearing should not take place during sensitive times of the year for wildlife (breeding season; early spring throughout summer) unless mitigation measures are implemented and/or the habitat has been inspected by a qualified biologist.
  - The Migratory Birds Convention Act, 1994 protects the nests and young of migratory breeding birds in Canada. No clearing of vegetation shall occur during the breeding bird window (April 15 and August 15) to prevent impacts to birds. Combining the breeding bird window with the bat roosting season (May to September; MNRF, 2015b), no clearing of vegetation shall occur between April 15 and September 30 inclusive to prevent impacts to both birds and bats. If vegetation clearing is to occur between April 1 and 15, a preclearing survey for active stick nests and cavity nests must be conducted to identify and protect early-nesting owls and raptors.
- To minimize impacts to remaining trees during development:
  - Erect a fence beyond the critical root zone (CRZ; equivalent to ten times the diameter of trunk) of retained trees that have roots that may extend into the project area. The fence should be highly visible (orange construction fence) and paired with erosion and sediment control fencing. Pruning of branches is recommended in areas of potential conflict with construction equipment;
  - Do not place any material or equipment within the CRZ of trees unless otherwise approved;
  - Do not attach any signs, notices, or posters to any trees unless otherwise approved;
  - Do not raise or lower the existing grade within the CRZ of trees unless otherwise approved;



- Do not extend any hard surface or significantly change landscaping within the CRZ of trees unless otherwise approved;
- Do not damage the root system, trunk, or branches of any remaining trees unless otherwise approved;
- Ensure that exhaust fumes from equipment are not directed towards any tree's canopy.

## 5.2 Tree Planting Recommendations

Per Schedule B of the City of Ottawa Tree Protection By-Law (No. 2020-340), compensatory tree planting should be at a 1:1 replacement ratio for private properties in the urban area over 1 ha in size. Replacement tree planting should be on the same property in the vicinity of the work area.

42 trees are scheduled to be removed, these include one American Elm, one Basswood, six Bitternut Hickory, thirty-one Eastern White Cedar, one Siberian Elm, one White Oak, and one White Spruce. Replacement trees should be of the same species and numbers.

### 6.0 CLOSURE

This report was prepared for exclusive use by Wildpine Trails Inc. and may be distributed only by or in accordance with the express instructions of Wildpine Trails Inc. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

**KILGOUR & ASSOCIATES LTD.** 

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**Biologist** 

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Tree Conservation Report: 37 Wildpine Courtm Stittsville , Ottawa Raad Akraw Wildpine Trails Inc: - Heafey 989.2 November 30, 2023

Appendix A Tree inventory table for the Site



| Tree<br>Number | Waypoint | Common Name         | Latin Name         | DBH (cm) | Condition / Notes             | Fate     |
|----------------|----------|---------------------|--------------------|----------|-------------------------------|----------|
| 1              | 409      | Manitoba Maple      | Acer negundo       | 33       | Multistemmed                  | Retained |
| 2              | 410      | Manitoba Maple      | Acer negundo       | 21       |                               | Retained |
| 3              | 411      | Manitoba Maple      | Acer negundo       | 20       |                               | Retained |
| 4              | 412      | Manitoba Maple      | Acer negundo       | 24       |                               | Retained |
| 5              | 413      | Manitoba Maple      | Acer negundo       | 20       |                               | Retained |
| 6              | 414      | Manitoba Maple      | Acer negundo       | 42       | Multistemmed                  | Retained |
| 7              | 415      | Manitoba Maple      | Acer negundo       | 31       | Multistemmed                  | Retained |
| 8              | 416      | Manitoba Maple      | Acer negundo       | 26       | Multistemmed                  | Retained |
| 9              | 417      | Manitoba Maple      | Acer negundo       | 23       | Multistemmed                  | Retained |
| 10             | 418      | Manitoba Maple      | Acer negundo       | 20       | Multistemmed                  | Retained |
| 11             | 419      | Manitoba Maple      | Acer negundo       | 20       | Multistemmed                  | Retained |
| 12             | 420      | Manitoba Maple      | Acer negundo       | 38       | Multistemmed                  | Retained |
| 13             | 421      | Manitoba Maple      | Acer negundo       | 23       |                               | Retained |
| 14             |          | Manitoba Maple      | Acer negundo       | 22       | Multistemmed                  | Retained |
| 15             | <b>!</b> | Manitoba Maple      | Acer negundo       | 23       | Multistemmed                  | Retained |
| 16             | 424      | Manitoba Maple      | Acer negundo       | 16       | Multistemmed                  | Retained |
| 17             | 425      | American Elm        | Ulmus americana    | 15       | Muliisteriirieu               | Retained |
| 18             | 425      | Black Ash           | Fraxinus americana | 15       | Evidence of Emerald Ash Borer | Retained |
|                | 426      |                     |                    | 30       | Multistemmed                  |          |
| 19             |          | Manitoba Maple      | Acer negundo       |          | Mullisternmed                 | Retained |
| 20             | 428      | Manitoba Maple      | Acer negundo       | 30       |                               | Retained |
| 21             | 429      | Manitoba Maple      | Acer negundo       | 30       |                               | Retained |
| 22             | 430      | Manitoba Maple      | Acer negundo       | 27       | Multistemmed                  | Retained |
| 23             |          | Manitoba Maple      | Acer negundo       | 20       | Multistemmed                  | Retained |
| 24             | 432      | Manitoba Maple      | Acer negundo       | 23       | Multistemmed                  | Retained |
| 25             | 433      | Manitoba Maple      | Acer negundo       | 20       | Multistemmed                  | Retained |
| 26             | 434      | Manitoba Maple      | Acer negundo       | 48       |                               | Retained |
| 27             | 435      | Manitoba Maple      | Acer negundo       | 22       |                               | Retained |
| 28             | 436      | American Elm        | Ulmus americana    | 28       |                               | Retained |
| 29             | 437      | Manitoba Maple      | Acer negundo       | 13       | Multistemmed                  | Retained |
| 30             | 438      | Manitoba Maple      | Acer negundo       | 24       | Multistemmed                  | Retained |
| 31             | 439      | Manitoba Maple      | Acer negundo       | 37       |                               | Retained |
| 32             | 440      | Manitoba Maple      | Acer negundo       | 29       | Multistemmed                  | Retained |
| 33             | 441      | Manitoba Maple      | Acer negundo       | 19       | Multistemmed                  | Retained |
| 34             | 442      | Manitoba Maple      | Acer negundo       | 22       | Multistemmed                  | Retained |
| 35             | 443      | Manitoba Maple      | Acer negundo       | 20       | Multistemmed                  | Retained |
| 36             | 444      | Manitoba Maple      | Acer negundo       | 20       | Multistemmed                  | Retained |
| 37             | 445      | Manitoba Maple      | Acer negundo       | 14       | Multistemmed                  | Retained |
| 38             | 446      | Manitoba Maple      | Acer negundo       | 21       | Multistemmed                  | Retained |
| 39             | 447      | Manitoba Maple      | Acer negundo       | 12       | Multistemmed                  | Retained |
| 40             |          | Manitoba Maple      | Acer negundo       | 12       | Multistemmed                  | Retained |
| 41             | 449      | Manitoba Maple      | Acer negundo       | 20       | Multistemmed                  | Retained |
| 42             | 450      | Manitoba Maple      | Acer negundo       | 18       | Multistemmed                  | Retained |
| 43             |          |                     |                    |          |                               |          |
|                | 451      | Manitoba Maple      | Acer negundo       | 22       | Multistemmed                  | Retained |
| 44             | 452      | Manitoba Maple      | Acer negundo       | 18       | Multistemmed                  | Retained |
| 45             | 453      | Manitoba Maple      | Acer negundo       | 22       | Multistemmed                  | Retained |
| 46             | 454      | Manitoba Maple      | Acer negundo       | 24       |                               | Retained |
| 47             | 455      | Manitoba Maple      | Acer negundo       | 30       |                               | Retained |
| 48             | 456      | American Elm        | Ulmus americana    | 22       |                               | Retained |
| 49             | 457      | Eastern Cottonwood  | Populus deltoides  | 55       |                               | Retained |
| 50             | 457      | Eastern Cottonwood  | Populus deltoides  | 48       |                               | Retained |
| 51             | 457      | Eastern Cottonwood  | Populus deltoides  | 40       |                               | Retained |
| 52             | 458      | Siberian Elm        | Ulmus pumila       | 34       | Some branch dieback           | Removed  |
| 53             | 459      | American Elm        | Ulmus americana    | 18       |                               | Removed  |
| 54             | 460      | American Elm        | Ulmus americana    | 10       |                               | Retained |
| 55             | 461      | Eastern White Cedar | Thuja occidentalis | 40       | Multistemmed; some dead stems | Retained |
| 56             | 462      | Eastern White Cedar | Thuja occidentalis | 50       | Multistemmed; some dead stems | Retained |
| 57             | 463      | Black Ash           | Fraxinus americana | 12       | Evidence of Emerald Ash Borer | Retained |
| 58             | 464      | Black Ash           | Fraxinus americana | 18       | Evidence of Emerald Ash Borer | Retained |
| 59             | 465      | Black Ash           | Fraxinus americana | 13       | Evidence of Emerald Ash Borer | Retained |
| 60             | 466      | Black Ash           | Fraxinus americana | 15       | Evidence of Emerald Ash Borer | Retained |
| 61             | 467      | Black Ash           | Fraxinus americana | 14       | Evidence of Emerald Ash Borer | Retained |
|                |          |                     | amonionid          | 1 ''     |                               | j5.a5u   |

| 63<br>64<br>65<br>66<br>67<br>68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76<br>77 | 469<br>470<br>471<br>472<br>473<br>474<br>475<br>476<br>477 | Black Ash Eastern White Cedar Eastern White Cedar Eastern White Cedar Eastern White Cedar | Fraxinus americana<br>Thuja occidentalis<br>Thuja occidentalis | 18<br>45 | Evidence of Emerald Ash Borer Exposed roots; some branch dieback | Retained<br>Retained |
|--|---|---|--|----------|--|----------------------|
| 65<br>66<br>67<br>68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76                   | 471<br>472<br>473<br>474<br>475<br>476<br>477               | Eastern White Cedar<br>Eastern White Cedar  | Thuja occidentalis   |          | Exposed roots: some branch dieback                               | Retained             |
| 66<br>67<br>68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76                         | 472<br>473<br>474<br>475<br>476<br>477                      | Eastern White Cedar   |  |          | Exposed footo, some branen diebaek                               | Incramen             |
| 67<br>68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76                               | 473<br>474<br>475<br>476<br>477                             |   |  | 40       | Exposed roots; some branch dieback                               | Retained             |
| 68<br>69<br>70<br>71<br>72<br>73<br>74<br>75<br>76                                     | 474<br>475<br>476<br>477                                    | Eastern White Cedar   | Thuja occidentalis   | 30       | Exposed roots; some branch dieback                               | Retained             |
| 69<br>70<br>71<br>72<br>73<br>74<br>75<br>76   | 475<br>476<br>477   |   | Thuja occidentalis   | 32       | Exposed roots; some branch dieback                               | Retained             |
| 70<br>71<br>72<br>73<br>74<br>75<br>76<br>77   | 476<br>477  | Eastern White Cedar   | Thuja occidentalis   | 50       | Overturned roots   | Retained             |
| 71<br>72<br>73<br>74<br>75<br>76   | 477   | Eastern White Cedar   | Thuja occidentalis   | 48       |  | Retained             |
| 72<br>73<br>74<br>75<br>76<br>77   |   | Manitoba Maple  | Acer negundo   | 20       |  | Retained             |
| 73<br>74<br>75<br>76<br>77   |   | Sugar Maple   | Acer saccharum   | 25       | Over fence   | Retained             |
| 74<br>75<br>76<br>77   | 478   | Sugar Maple   | Acer saccharum   | 25       | Over fence   | Retained             |
| 75<br>76<br>77   | 479   | Sugar Maple   | Acer saccharum   | 25       | Over fence   | Retained             |
| 76<br>77   | 480   | Sugar Maple   | Acer saccharum   | 20       | Over fence   | Retained             |
| 77   | 481   | Sugar Maple   | Acer saccharum   | 20       | Over fence   | Retained             |
|  | 482   | Siberian Elm  | Ulmus pumila   | 22       |  | Retained             |
|  | 483   | Yellow Birch  | Betula alleghaniensis  | 30       | Multistemmed   | Retained             |
| 78   | 484   | Basswood  | Tilia americana  | 20       |  | Retained             |
| 79   | 485   | Trembling Aspen   | Populus tremuloides  | 18       |  | Retained             |
| 80   | 486   | Trembling Aspen   | Populus tremuloides  | 15       |  | Retained             |
| 81   | 487   | Trembling Aspen   | Populus tremuloides  | 20       |  | Retained             |
| 82   |   | American Elm  | Ulmus americana  | 10       |  | Retained             |
| 83   | 489   | Trembling Aspen   | Populus tremuloides  | 24       |  | Retained             |
| 84   | 490   | Trembling Aspen   | Populus tremuloides  | 18       |  | Retained             |
| 85   | 491   | Silver Maple  | Acer saccharinum   | 24       |  | Retained             |
| 86   | 492   | White Pine  | Pinus strobus  | 10       |  | Retained             |
| 87   |   | Eastern White Cedar   | Thuja occidentalis   | 44       |  |                      |
|  | 493   |   |  |          | Multistammed   | Retained             |
| 88   |   | Basswood  | Tilia americana  | 36       | Multistemmed   | Retained             |
| 89   | 495   | Crack Willow  | Salix fragilis   | 66       | Multistemmed; large cavities                                     | Retained             |
| 90   | 496   | Bitternut Hickory   | Carya cordiformis  | 39       |  | Retained             |
| 91   | 497   | Basswood  | Tilia americana  | 15       | <b>.</b>   | Retained             |
| 92   | 498   | Basswood  | Tilia americana  | 20       | Multistemmed   | Retained             |
| 93   | 499   | American Elm  | Ulmus americana  | 15       |  | Retained             |
| 94   | 500   | Basswood  | Tilia americana  | 23       | Multistemmed   | Retained             |
| 95   | 501   | Ironwood  | Ostrya virginiana  | 13       |  | Retained             |
| 96   | 502   | Bitternut Hickory   | Carya cordiformis  | 26       |  | Retained             |
| 97   | 503   | Basswood  | Tilia americana  | 28       |  | Retained             |
| 98   | 504   | Ironwood  | Ostrya virginiana  | 14       |  | Retained             |
| 99   |   | Bitternut Hickory   | Carya cordiformis  | 48       | Multistemmed   | Retained             |
| 100  | 506   | Bitternut Hickory   | Carya cordiformis  | 18       |  | Retained             |
| 101  |   | Bitternut Hickory   | Carya cordiformis  | 22       |  | Retained             |
| 102  | 508   | Bitternut Hickory   | Carya cordiformis  | 22       |  | Retained             |
| 103  | 509   | Bitternut Hickory   | Carya cordiformis  | 36       |  | Retained             |
| 104  | 510   | Ironwood  | Ostrya virginiana  | 10       |  | Retained             |
| 105  | 511   | American Elm  | Ulmus americana  | 15       |  | Retained             |
| 106  | 512   | Ironwood  | Carya cordiformis  | 18       |  | Retained             |
| 107  | 513   | Bitternut Hickory   | Carya cordiformis  | 21       |  | Retained             |
| 108  | 514   | Bitternut Hickory   | Carya cordiformis  | 26       |  | Retained             |
| 109  | 515   | Bitternut Hickory   | Carya cordiformis  | 16       |  | Retained             |
| 110  | 516   | Bitternut Hickory   | Carya cordiformis  | 15       |  | Retained             |
| 111  | 517   | Bitternut Hickory   | Carya cordiformis  | 24       |  | Retained             |
| 112  | 518   | Bitternut Hickory   | Carya cordiformis  | 20       |  | Retained             |
| 113  | 519   | Bitternut Hickory   | Carya cordiformis  | 21       |  | Retained             |
| 114  | 520   | Bitternut Hickory   | Carya cordiformis  | 17       |  | Retained             |
| 115  | 521   | Bitternut Hickory   | Carya cordiformis  | 19       |  | Retained             |
| 116  | 522   | Bitternut Hickory   | Carya cordiformis  | 33       |  | Retained             |
| 117  | 523   | Bitternut Hickory   | Carya cordiformis  | 10       |  | Retained             |
|  |   |   | Carya cordiformis  |          |  |                      |
| 118  | 524   | Bitternut Hickory   | Carya cordiformis  | 24       |  | Retained             |
| 119  | 525   | Bitternut Hickory   |  | 54       |  | Retained             |
| 120  | 526   | Bitternut Hickory   | Carya cordiformis  | 12       |  | Retained             |
| 121  | 527   | Bitternut Hickory   | Carya cordiformis  | 21       |  | Retained             |
| 122  | 528   | Bitternut Hickory   | Carya cordiformis  | 24       |  | Retained             |
| 123<br>124   | 529<br>530  | Bitternut Hickory Bitternut Hickory   | Carya cordiformis Carya cordiformis                            | 16<br>20 | Multistemmed   | Retained<br>Retained |

| Tree<br>Number | Waypoint   | Common Name                            | Latin Name         | DBH (cm) | Condition / Notes                     | Fate     |
|----------------|------------|--|--------------------|----------|---------------------------------------|----------|
| 125            | 531        | American Elm                           | Ulmus americana    | 16       |                                       | Retained |
| 126            | 532        | Black Ash                              | Fraxinus americana | 20       | Evidence of Emerald Ash Borer         | Retained |
| 127            | 533        | Crack Willow                           | Salix fragilis     | 22       |                                       | Retained |
| 128            | 534        | Crack Willow                           | Salix fragilis     | 50       |                                       | Retained |
| 129            | 535        | Black Ash                              | Fraxinus americana | 18       |                                       | Retained |
| 130            | 536        | Crack Willow                           | Salix fragilis     | 38       |                                       | Retained |
| 131            | 537        | Basswood                               | Tilia americana    | 55       | Multistemmed                          | Retained |
| 132            | 538        | Eastern White Cedar                    | Thuja occidentalis | 46       | Cavities                              | Retained |
| 133            | 539        | Crack Willow                           | Salix fragilis     | 33       |                                       | Retained |
| 134            | 540        | Butternut                              | Juglans cinerea    | 8        | Dead                                  | Retained |
| 135            | 541        | Butternut                              | Juglans cinerea    | 59       | Healthy crown; open and sooty cankers | Retained |
| 136            | 542        | Bitternut Hickory                      | Carya cordiformis  | 48       |                                       | Retained |
| 137            | 543        | Bitternut Hickory                      | Carya cordiformis  | 12       |                                       | Retained |
| 138            | 544        | Bitternut Hickory                      | Carya cordiformis  | 20       |                                       | Retained |
| 139            | 545        | Bitternut Hickory                      | Carya cordiformis  | 13       |                                       | Retained |
| 140            | 546        | American Elm                           | Ulmus americana    | 13       |                                       | Retained |
| 141            | 547        | Butternut                              | Juglans cinerea    | 16       | Dead                                  | Retained |
| 142            | 548        | Bitternut Hickory                      | Carya cordiformis  | 18       |                                       | Retained |
| 143            | 549        | Bitternut Hickory                      | Carya cordiformis  | 24       |                                       | Retained |
| 144            | 550        | Bitternut Hickory                      | Carya cordiformis  | 24       |                                       | Retained |
| 145            | 551        | Ironwood                               | Ostrya virginiana  | 17       |                                       | Retained |
| 146            | 552        | Bitternut Hickory                      | Carya cordiformis  | 26       |                                       | Retained |
| 147            | 553        | Bitternut Hickory                      | Carya cordiformis  | 24       |                                       | Retained |
| 148            | 554        | Basswood                               | Tilia americana    | 17       |                                       | Retained |
| 149            | 555        | Bitternut Hickory                      | Carya cordiformis  | 22       |                                       | Retained |
| 150            | 556        | Bitternut Hickory                      | Carya cordiformis  | 26       |                                       | Retained |
| 151            | 557        | American Elm                           | Ulmus americana    | 12       |                                       | Retained |
| 152            | 558        | American Elm                           | Ulmus americana    | 10       |                                       | Retained |
| 153            | 559        | Eastern White Cedar                    | Thuja occidentalis | 20       | Multistemmed; cavities                | Retained |
| 154            | 560        | Eastern White Cedar                    | Thuja occidentalis | 24       | Woodpecker holes                      | Retained |
| 155            | 561        |  | Carya cordiformis  | 24       | Woodpecker Holes                      |          |
| 156            | 562        | Bitternut Hickory  Eastern White Cedar | Thuja occidentalis | 26       | Multistemmed; woodpecker holes        | Retained |
|                |            |  |                    |          | Multisternined, woodpecker noies      | Removed  |
| 157            | 563        | American Elm                           | Ulmus americana    | 12       | Duin a consum                         | Retained |
| 158<br>159     | 564<br>565 | American Elm                           | Ulmus americana    | 36<br>16 | Dying crown                           | Retained |
|                |            | Bitternut Hickory                      | Carya cordiformis  |          |                                       | Removed  |
| 160<br>161     | 566<br>566 | Bitternut Hickory                      | Carya cordiformis  | 24       |                                       | Removed  |
|                |            | Bitternut Hickory                      | Carya cordiformis  | 1        | Hadaana                               | Removed  |
| 162            | 567        | Eastern White Cedar                    | Thuja occidentalis |          | Hedgerow                              | Removed  |
| 163            | 568        | Eastern White Cedar                    | Thuja occidentalis |          | Hedgerow                              | Removed  |
| 164            |            |  | Thuja occidentalis |          | Hedgerow                              | Removed  |
| 165            | 570        | Eastern White Cedar                    | Thuja occidentalis |          | Hedgerow                              | Removed  |
| 166            | 571        | Eastern White Cedar                    | Thuja occidentalis | 22-28    | Hedgerow                              | Removed  |
| 167            | 572        | Eastern White Cedar                    | Thuja occidentalis | 22-28    | Hedgerow                              | Removed  |
| 168            | 573        | Eastern White Cedar                    | Thuja occidentalis | 22-28    | Hedgerow                              | Removed  |
| 169            | 574        | Eastern White Cedar                    | Thuja occidentalis | 22-28    | Hedgerow                              | Removed  |
| 170            | 575        | Eastern White Cedar                    | Thuja occidentalis | 26       |                                       | Removed  |
| 171            | 576        | Bitternut Hickory                      | Carya cordiformis  | 30       |                                       | Removed  |
| 172            | 577        | Bitternut Hickory                      | Carya cordiformis  | 43       |                                       | Removed  |
| 173            | 578        | Eastern White Cedar                    | Thuja occidentalis | 38       | Multistemmed                          | Removed  |
| 174            | 579        | White Oak                              | Quercus alba       | 74       |                                       | Removed  |
| 175            | 580        | Eastern White Cedar                    | Thuja occidentalis | 39       |                                       | Removed  |
| 176            | 581        | Eastern White Cedar                    | Thuja occidentalis | 66       |                                       | Removed  |
| 177            | 582        | Eastern White Cedar                    | Thuja occidentalis | 50       |                                       | Removed  |
| 178            | 583        | Eastern White Cedar                    | Thuja occidentalis | 41       | Multistemmed                          | Removed  |
| 179            | 584        | Eastern White Cedar                    | Thuja occidentalis | 36       | Multistemmed                          | Removed  |
| 180            | 585        | Eastern White Cedar                    | Thuja occidentalis | 42       | Multistemmed                          | Removed  |
| 181            | 587        | Eastern White Cedar                    | Thuja occidentalis | 38       |                                       | Removed  |
| 182            | 588        | Eastern White Cedar                    | Thuja occidentalis | 42       |                                       | Removed  |
| 183            | 589        | Eastern White Cedar                    | Thuja occidentalis | 42       |                                       | Removed  |
| 184            | 590        | Eastern White Cedar                    | Thuja occidentalis | 44       |                                       | Removed  |
| 185            | 591        | Bitternut Hickory                      | Carya cordiformis  | 41       |                                       | Removed  |
| 186            | 592        | Basswood                               | Tilia americana    | 46       |                                       | Removed  |

| Tree<br>Number | Waypoint | Common Name         | Latin Name         | DBH (cm) | Condition / Notes     | Fate    |
|----------------|----------|---------------------|--------------------|----------|-----------------------|---------|
| 187            | 593      | White Spruce        | Picea glauca       | 46       |                       | Removed |
| 188            | 594      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 189            | 595      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 190            | 596      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 191            | 597      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 192            | 598      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 193            | 599      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 194            | 600      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 195            | 601      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 196            | 602      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |
| 197            | 603      | Eastern White Cedar | Thuja occidentalis | 20-30    | Hedgerow; poor health | Removed |