

# 520-526 BIG BAY POINT RD., BARRIE, RESIDENTIAL DEVELOPMENT

## TREE INVENTORY, ANALYSIS, PRESERVATION REPORT (TIPP)



520-526 BIG BAY POINT ROAD,  
BARRIE, ONTARIO, COUNTY OF SIMCOE

DECEMBER 2020 – UPDATED TO APRIL 2021  
CITY OF BARRIE FILE: D28-012-2019  
OUR FILE: LA 494-20

PREPARED BY:



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## 1.0 Scope/Assignment:

The Landmark Environmental Group Ltd. (LEGroup) (Jim Hosick, Jared Grice) is retained by **Morriello Construction Ltd.** to provide Consulting Arboriculture services to lands on the north side of Big Bay Point Road, east of Yonge Street in the City of Barrie, municipally known as 520 & 526 Big Bay Point Road.

The assignment is to prepare a Tree Inventory, Analysis & Preservation (TIPP) Report and Plan in support of a residential housing development. LEGroup is requested to create a tree inventory, assessment and preservation report to assess the existing trees on the subject site, indicate those trees that can be preserved and the methods for protecting the same. Further, those trees that cannot be preserved either by poor or declining health, structural deficiencies or to facilitate the proposed development on the site, are indicated to be removed.

Specifically, LEGroup is assigned to provide the following services:

- Review site data including survey, site plan drawings and engineering plans, to provide for a site visit and correspond with City staff and the Lake Simcoe Region Conservation Authority (LSRCA) as applicable (although the subject lands are non-Regulated);
- Conduct a field review to inventory tree specimens, tree groupings, boundary trees visually assessing and identifying the type, location, size and quality of any trees on site within the developable area and indicating the presence of any Butternut (in accordance with the *Endangered Species Act 2007*);
- Provide a Tree Inventory, Analysis and Preservation Report that sets out the methodology, observations, criteria, analysis and conclusions of our review and area conditions;
- Indicate on a Tree Inventory and Protection Plan, those trees that are suitable for preservation or removal and providing the methods of protecting the same;

It is the intent in the undertaking of this Report, to comply with the City of Barrie tree preservation by-laws and policies and any requirements of the Lake Simcoe Region Conservation Authority.

## 2.0 Proposed Development:

The subject site is located on the north side of Big Bay Point Road, east of Yonge St. and west of Dodson Rd. in the City of Barrie, County of Simcoe, Ontario. The two sites combined is a residential lot, 0.36 ha in area and the Owner is proposing to submit a Zoning Amendment/Site Plan Approval application to construct a six (6) story, forty-six (46) unit building on site. The proposed development layout can be seen on the **Proposed Site Grading Plan** by Pinestone Engineering Ltd. in **Appendix A**.

LEGroup staff also undertook a Level 1 (visual) structural assessment for trees on the subject site and those trees crossing over the property line from outside its boundaries.

The subject property is bounded by institutional lands (Warnica Public School – 211 Warnica Road) to the north, residential lands (528 Big Bay Point Road) to the east; residential lands to the west (516 Big Bay Point Road), and Big Bay Point Road to the south. The limits of the TIPP study were confined to the site boundaries.

This Tree Inventory, Analysis, Preservation Report is submitted in support of and intended to accompany those planning application documents submitted to the City of Barrie for their approval for the development of the site.

Below, is an air photo illustrating the location of the subject site (red lines show the site property lines):



Figure 1: Airphoto of Subject Site (Property Line Highlighted) and Surrounding Area (Courtesy Simcoe County GIS)

### 3.0 Method:

A summary of the inventory, observations and assessments that were determined in the field can be found in **Appendix C** at the end of this Report.

The tree assessments were identified in accordance with the detailed typical criteria used in best arboricultural practices to indicate the merits of tree preservation including the species (*Latin* and common names), size diameter at breast height (dbh), maturity, biological health, structural concerns (if any), condition rating and recommendations for preservation or removal of existing specimen trees.

Condition ratings applied to overall tree assessments using the above-noted criteria range from 1 (diseased/hazard) to 5 (excellent). Typically, those trees being assessed a condition rating of 1-3 are recommended for removal while those trees being assessed a condition rating of 4-5 are recommended for preservation unless there are extenuating circumstances regarding the development of the site. The criterion is also applied to assist in assessment of their potential for survival in-situ post construction.

For the purposes of this Report, only those trees over 10cm dbh were captured. No shrubs or low understory perennials were captured in the data.

Each tree was assigned a key number (1-103) tagged on site and observations relating to each tree were tabulated in the Tree Inventory and Assessment Table (**Appendix C**). Each tree was also located on a Tree Inventory and Preservation Map corresponding to the number assigned and can be seen in the Tree Inventory, Assessment and Preservation Plans (**ARB-1, ARB-2 and ARB-3**) as shown in **Appendix B**.

### 4.0 Observations:

On October 23 2020, LEGroup staff J. Hosick (ISA Arborist ON-1098A) and J. Grice (ISA Arborist ON-2562A) visited the subject site with the intent to provide an inventory and assessment of individual tree species present within the subject site.

A total of one hundred and three (103) trees were observed at a DBH (diameter breast height) greater than 10cm on the subject site and are recorded in **Appendix C**. This tree inventory contains trees that are considered both ornamental and native/indigenous to the area. LEGroup staff also observed that the site ground has a relatively flat grade.

The following woody plant species were observed on the subject site during fieldwork that gives an indication of the species make-up of the site:

| Latin name                               | Common Name           | % of Total Trees |
|------------------------------------------|-----------------------|------------------|
| <i>Abies balsamea</i>                    | Balsam Fir            | 0.9%             |
| <i>Acer negundo</i>                      | Manitoba Maple        | 3.9%             |
| <i>Acer platanoides</i>                  | Norway Maple          | 11.8%            |
| <i>Acer saccharum</i>                    | Sugar Maple           | 26.2%            |
| <i>Picea glauca</i>                      | White Spruce          | 14.6%            |
| <i>Picea pungens glauca</i>              | Colorado Blue Spruce  | 2.9%             |
| <i>Pinus sylvestris</i>                  | Scots Pine            | 29.1%            |
| <i>Prunus serotina</i>                   | Black Cherry          | 2.9%             |
| <i>Sorbus americana</i>                  | American Mountain Ash | 1.9%             |
| <i>Thuja occidentalis</i>                | Eastern White Cedar   | 4.9%             |
| <i>Ulmus americana</i>                   | American Elm          | 0.9%             |
| <b>Total Trees</b> (subject to rounding) |                       | 100%             |

**Table 1** List of Observed Woody Plant Species on the Subject Site

As shown in **Table 1** above, Scots Pine makes up the largest composition of the trees on the subject site at 29.1%. The next largest tree component identified was Sugar Maple at 26.2% and White Spruce at 14.6%, followed by Norway Maple at 11.8%, Eastern White Cedar at 4.9%, Manitoba maple at 3.9%, Colorado Blue Spruce and Black Cherry both at 2.9%, American Mountain Ash at 1.9%, and Balsam Fir and American Elm both at 0.9%.

LEGroup Staff observed that the trees appeared to be generally located along the rear of the site (Trees Nos. 15-83), with an additional grouping of trees located along the centre of the site on the boundary between 520 and 526 Big Bay Point Rd (Trees Nos. 1-11, and 85-103). The trees at the rear boundary (Tree Nos. 15-83) are densely spaced and appear to generally be in poor to fair condition with health concerns characteristic of a woodland area including corrected leans, trunk wounds, thin canopies (see **Photo A, Appendix D**). This area largely consists of Scots Pine and White Spruce planted in rows, with other species growing, likely as fly-ins. Many of the trees in this area have embedded screws/nails as it was likely a fence had been formerly attached to several of the trees.

The trees located at the centre of the site (Trees Nos 85-103) are largely Sugar Maple, as well as Eastern White Cedar and Norway Maple and are generally in poor to fair condition with health concerns including multiple leaders, included bark, dead/broken branches and bark necrosis (**See Photo E – Appendix D**). The Cedars in this area exhibit health concerns including multiple leaders/trunks, lower branch pruning, thin canopies, and are located adjacent to an existing shed.

Trees Nos 9 and 11 are both Manitoba Maples with multiple trunks, bark necrosis, dead/broken branches, significant leans, and fungal growth (**See Photo D – Appendix D**).

LEGroup staff also made a cursory review of existing trees exterior to the subject property to visually assess the quality of the vegetation and noted that they are in poor to fair health with fair to good form, however no offsite tree canopies crossed over into the subject site.

LEGroup staff did not identify any Butternut (*Juglans cinerea*) on the subject parcel during the on-site inventory in accordance with the requirements of the *Endangered Species Act, 2007*.

## 5.0 Study Criteria

Tree observations were recorded individually, as set out in the Tree Inventory and Assessment Table (**Appendix C**), in accordance with the criteria established by common arboricultural practice including:

- ✓ Latin/Common Name of tree;
- ✓ Size (mm cal);
- ✓ Canopy (m radius);
- ✓ Condition/Comments; and
- ✓ Recommendation for Preservation or Removal

Tree locations on the Tree Inventory and Preservation Plans were recorded and adjusted, however the locations are approximate as shown on **Drawing ARB-1, ARB-2 and ARB-3 in Appendix B**. A GPS data collector device (Trimble) was used to establish the locations of the inventoried trees and is accurate to 30cm.

## 6.0 Analysis and Recommendations

### 6.1 Analysis

The following analysis criteria were generally applied to measure the merits of tree preservation:

- Species (including native & non-native)
- Size/Maturity
- Structure
- Health
- Location
- Areas of proposed development.

These criteria were applied to the tree assessments to determine the extent of preservation and removal. In addition, the criterion is applied to assess of their potential for survival in-situ post construction.

LEGroup staff are of the opinion that 87 of the 103 trees (Tree Nos. 1 - 16, 18, 20–24, 26, 27, 29, 31-34, 39, 41, 43, 44-48, 52-54, 56-67, and 69-103) located on site are in poor to fair condition, conflict with the proposed development, and are of limited aesthetic value to be retained for the development. These trees have defects as outlined in the Tree Inventory Table (**Appendix C**).

Tree Nos. 1 - 11 and 85 - 103 are located in the middle of the lot and conflict with the proposed building and parking lot. These trees are in poor to fair condition and were found to have multiple leaders, included bark, leans, rubbing/crossing trunks, and compete with adjacent trees for sunlight. For these reasons, LEGroup staff are recommending these trees for removal. Trees Nos 12-14 are located closer to the west side of the site, exhibit health concerns such as exposed roots, branch dieback, suspected interior decay, and are in marginal to fair condition. These trees conflict with the proposed building and parking lot, and for these reasons are recommended for removal.

Additionally, Tree Nos. 15, 16, 18, 20–24, 26, 27, 29, 31-34, 39, 41, 43, 44, 45-48, 52-54, 56-67, and 60-84 are recommended for removal as they either interfere with the proposed parking lot, or a significant portion of their critical root zone will be impacted by the proposed parking lot and proposed retaining wall and are not expected to survive post-construction. They were found to be generally in poor to fair condition, with several of them having been previously used to support a fence (embedded nails, screws, and sections of chain link fence within their trunks).

We note that there are a number of trees that were recorded to be over 10cm dbh that are recommended for retention (Tree Nos. 17, 19, 25, 28, 30, 35-38, 40, 42, 49-51, 55, and 68) as set out in **Appendix C** due to their optimum location, buffering screening potential, poor - fair health, and their moderate tolerance of in-situ post construction grading changes. These trees are located mainly on the north end of the proposed site, and are to be protected with tree preservation fencing as laid out in **ARB-3**. Additionally, any roots encountered during excavation for the construction of the proposed parking lot or retaining wall should be severed cleanly to reduce impact.

## 6.2 Summary and Recommendations

In summary, as a result of a proposed residential development at 520-525 Big Bay Point Road, subject to Zoning Amendment/Site Plan Approval application, the City of Barrie has required that the Owner submit a Tree Inventory, Assessment and Preservation Report and Plan in support of the development for their review.

The summarized recommendations noted above are as follows:

- Trees 1 - 16, 18, 20-24, 26, 27, 29, 31-34, 39, 41, 43, 44-48, 52-54, 56-67, and 69-103 on the proposed site are recommended for removal as shown on **ARB-2 and ARB-3 in Appendix B**;
- Trees Nos. 17, 19, 25, 28, 30, 35-38, 40, 42, 49-51, 55, and 68 are to be retained and protected with tree preservation fencing as shown on **ARB-3**;
- That all trees off-site be protected to the extent possible and that tree preservation fencing be provided at the dripline of each tree which represents the tree preservation zone. Where tree preservation fencing cannot be established at the dripline, the tree preservation fence should be installed as far as practical from the trunk. The Arborist/Landscape Architect or qualified personnel shall be on site during the erection of the tree preservation fencing for guidance;
- That tree preservation signage (see dwg **D-1, Appendix B**) be erected at the time of the hoarding installation (tree preservation fencing) attached to the preservation fencing;
- No equipment storage or refueling is to take place within the tree preservation zone as established by the preservation fencing;
- Tree preservation fencing is to be removed only after construction on the site is complete and all equipment has been removed;
- Existing tree branching that interferes with the development works may be lightly pruned by qualified personnel;
- Roots encountered during excavation for the construction of the proposed parking lot and retaining wall should be cut cleanly to reduce impact;
- For other preservation methods, please refer to the Tree Preservation Notes on drawing **D-1 in Appendix B**.

## 7.0 Arborist's Declaration

It is the policy of Landmark Environmental Group Ltd to attach the following clause regarding the limitations:

The Consulting Arborist's visual assessment and recommendations, made in this Report, have been completed based on accepted arboricultural practices and represents a fair and accurate assessment of the number, type, size and condition of trees on the subject property. Such visual assessments of all tree components could include scars, bark damage, external decay, insect infestations, discoloured foliage, crown dieback, an excessive degree of lean from the vertical and above-ground root defects. In addition, environmental conditions, which could affect overall health of the trees such as damaging maintenance practices, have also been taken into consideration where appropriate. However, no tree was dissected, cored or rooting systems assessed through excavation.

I hereby certify that I, James (Jim) Hosick have:

- Personally performed a visual inspection of the trees and property referred to in this letter report and have stated my findings accurately in accordance with accepted arboricultural practices without personal interest or bias;
- No current or prospective interest in the property that is the subject of this Report and have no personal interest or bias with respect to the parties involved;
- That my analysis, opinions and conclusions stated are my own and based on commonly accepted arboricultural practices;
- That my compensation is not contingent on the reporting of a predetermined conclusion that favours the client; and
- That I am a member in good standing with the International Society of Arboriculture (ISA), the American Association of Consulting Arborists (ASCA) and the Ontario Association of Landscape Architects (OALA).

I trust the above-noted recommendations are of assistance. If there are any questions regarding the 520-526 Big Bay Point Road Residential Development Tree Inventory, Analysis, Preservation Report please feel free to contact our Firm at (705) 796-1122.

Prepared by,



Jim Hosick, OALA, ISA  
Landscape Architect-Principal,  
ISA Certified Arborist No. 1098-A  
Tree Appraisal Qualified TPAQ  
Member, American Association of Consulting Arborists  
MNR Butternut Health Assessor # 451  
**Landmark Environmental Group Ltd**



Prepared by



Jared Grice, BLA, ISA  
OALA Associate Member  
ISA Certified Arborist No. 2562-A  
**Landmark Environmental Group Ltd**

## 8.0 Glossary of Arboricultural Terms

Adventitious – arising from parts of the root of stem and having no connection to apical meristems.

Arboriculture – practice and study of the care of trees and other woody plants in the landscape.

Bleeding – flow of sap from plant wounds, injuries, or pathogen invasion.

Branch – stem arising from a larger stem. A subdominant stem.

Canopy – collective branches and foliage of a tree or a group of trees' crowns.

Cavity – open or closed hollow within a tree stem, usually associated with decay.

Chlorosis – whitish or yellowish leaf discolouration caused by lack of chlorophyll. Often caused by nutrient deficiency.

Co-dominant branches/stems – forked branches nearly the same size in diameter, arising from a common junction and lacking a normal branch union.

Conk – fruiting body or non-fruiting body (sterile conk) of a fungus. Often associated with decay.

Crown – upper part of the tree, measured from the lowest branch, including all the branches and foliage.

DBH – acronym for tree diameter at breast height. Measured 1.4 meters above ground.

Dieback – condition in which the branches in the tree crown die from the tips toward the centre.

Drip-line – imaginary line defined by the branch spread of a single plant or group of plants.

Epicormic Shoot – Shoot arising from a latent or adventitious bud (growth point).

Girdling Root – root that encircles all or part of the trunk of a tree or other roots and constricts the vascular tissue and inhibits secondary growth and the movement of water and photosynthates.

Included Bark – bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Causes a weak structure.

Interior Decay – Moisture or fungus that has entered a wound in a tree and has begun to rot away the internal, structural wood.

Leader – primary terminal shoot or trunk of a tree. Large, usually upright stem. A stem that dominates a portion of the crown by suppressing lateral branches.

Pruning – removing branches from a tree or other plants to achieve a specified objective.

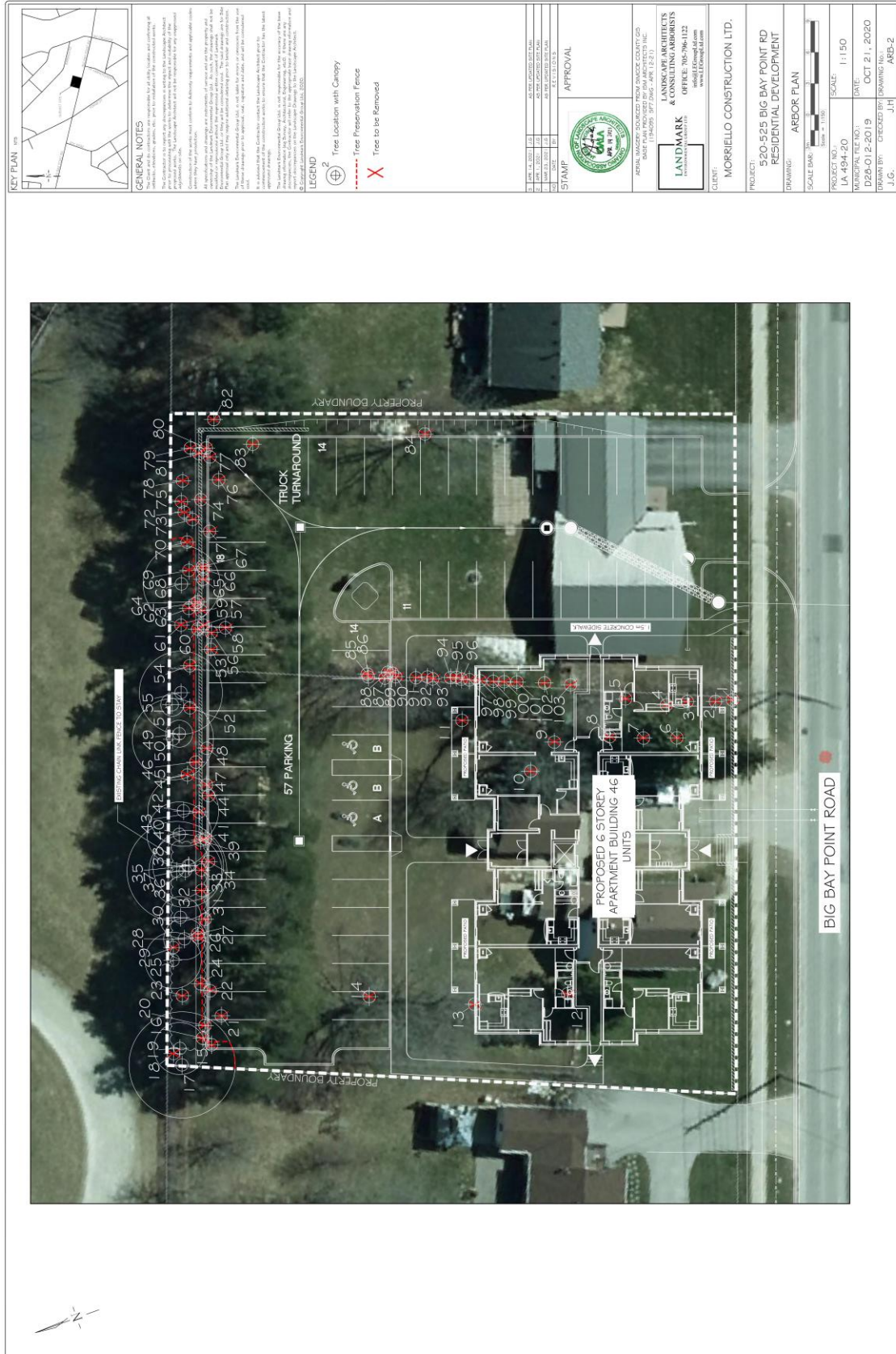
Tree Protection Zone (TPZ) – Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction or development.

[illegible]

Appendix B: Tree Inventory Preservation Plan (ARB-1, ARB-2, ARB-3, D-1)



# Tree Inventory/Preservation Airphoto Layover Plan (ARB-2)



[illegible]

# Tree Preservation Details (D-1)



**KEY PLAN** 1/8"

**GENERAL NOTES**

1. THE INTENT OF THIS DETAIL IS TO PROVIDE PROTECTION AND PRESERVATION FOR EXISTING TREES ON THE SUBJECT PROPERTY. THEREFORE, ALL TREES ARE TO BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. THE LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY TREES ON SITE. PRIOR TO THE REMOVAL OF ANY TREES, THE LANDSCAPE ARCHITECT SHALL OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

2. PRIOR TO THE COMMENCEMENT OF ANY CLEARING, GRUBBING OR CONSTRUCTION WORKS, THE REQUIRED HOUSING WILL BE ERECTED 3M OUTSIDE OF THE OUTERMOST DISPLINE OF ANY TREE TO BE REMOVED. THE HOUSING SHALL BE CONSTRUCTED TO A MINIMUM HEIGHT OF 2.0M AND SHALL BE USED FOR RIGGING OR WATKING. THE PROTECTION PRESERVATION AREA SHALL NOT BE USED TO STORE EQUIPMENT, MATERIALS, OR WASTE. THE PROTECTION PRESERVATION AREA SHALL BE USED FOR THE STORAGE OF EQUIPMENT, MATERIALS, OR WASTE.

3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ERECT AND MAINTAIN ALL HOUSING AS PER THE APPROVED DETAIL. PRESERVATION NOTES AND LOCATIONS SHOWN ON THE DRAWINGS.

4. NO STORAGE OF EQUIPMENT OR VEHICLES, NOR ANY STOCKPILING OF MATERIAL IS TO OCCUR WITHIN THE PROTECTION PRESERVATION AREA. THE PROTECTION PRESERVATION AREA SHALL NOT BE USED FOR RIGGING OR WATKING. THE PROTECTION PRESERVATION AREA SHALL NOT BE USED TO STORE EQUIPMENT, MATERIALS, OR WASTE. THE PROTECTION PRESERVATION AREA SHALL BE USED FOR THE STORAGE OF EQUIPMENT, MATERIALS, OR WASTE.

5. TREES LOCATED ON THE IMMEDIATE EDGE OF THE CONSTRUCTION WORKS ARE TO BE PRUNED IN THE INTEREST OF SAFETY. IN ACCORDANCE WITH APPROVED AGRICULTURAL PRACTICES.

6. TREE LOCATIONS ARE APPROXIMATE AND THEREFORE VERIFICATION ON SITE IS REQUIRED.

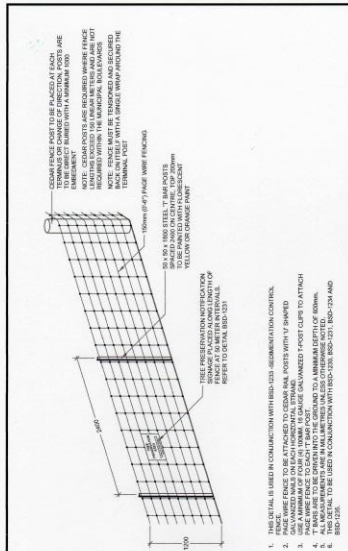
7. SHOULD A TREE BE REQUIRED TO BE PROTECTED BECOME DAMAGED OR REMOVED WITHOUT THE APPROVED DETAIL, THE LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE TREE OF EQUAL CALIBRE AND ACCEPTABLE TREE SPECIES AT THE DISCRETION AND SATISFACTION OF THE LANDSCAPE ARCHITECT.

8. THE WORK COMPLETED BY THE CONTRACTOR WILL NOT CAUSE OR EXACERBATE FLOODING OR EROSION. THE CONTRACTOR SHALL TAKE PLACE WITHIN THE TREE PRESERVATION AREA UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.

9. ANY REQUIRED LIMB TRIMMING SHALL BE UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT OR A QUALIFIED ARBORIST.

10. PRESERVATION FENCING IS TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED DETAIL. FENCING IS TO BE INSTALLED IN CONJUNCTION WITH THE APPROVED ENGINEERING DRAWINGS.

11. LANDSCAPE TREE PRESERVATION MAY BE COMPLETED IN CONJUNCTION WITH SEDIMENTATION CONTROL.



**TREE PRESERVATION AREA TEMPLATE**

1. THIS DETAIL IS TO BE USED IN CONJUNCTION WITH BSD-1231 AND BSD-1232.

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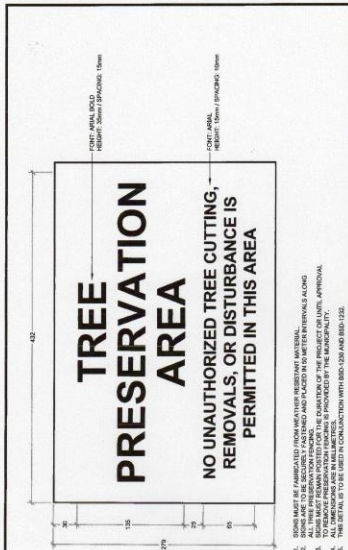
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520-526 Big Bay Point Road, Barrie, ON Residential Development  
Landmark Environmental Group Ltd.

Updated to April 14, 2021  
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## Appendix C: Tree Inventory and Assessment Table

| Key | Latin Name                  | Common Name           | Diameter (cm DBH) | Comments                                                                                                                        | Assessment | Canopy Radius (m) | Preserve /Remove |
|-----|-----------------------------|-----------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------|------------|-------------------|------------------|
| 1   | <i>Acer saccharum</i>       | Sugar Maple           | 16.5              | lower branch pruning, utility wires, wounded branches, poor branch attachment                                                   | 2 Marginal | 3.6               | Remove           |
| 2   | <i>Acer platanoides</i>     | Norway Maple          | 15.8              | minor sweeping lean, competition with adjacent trees                                                                            | 3 Fair     | 3.6               | Remove           |
| 3   | <i>Acer platanoides</i>     | Norway Maple          | 21.1              | dual leaders, included bark, competition with adjacent trees                                                                    | 3 Fair     | 4.3               | Remove           |
| 4   | <i>Acer platanoides</i>     | Norway Maple          | 14.4              | minor lean, competition with adjacent trees                                                                                     | 3 Fair     | 3.3               | Remove           |
| 5   | <i>Acer negundo</i>         | Manitoba Maple        | 16.8              | dual leaders, crook in trunk, epicormic shoots                                                                                  | 2 Marginal | 3.5               | Remove           |
| 6   | <i>Picea pungens glauca</i> | Colorado Blue Spruce  | 46.6              | lower branch pruning, minor sap bleeding, embedded screws, moderate dieback, needle yellowing                                   | 2 Marginal | 4.7               | Remove           |
| 7   | <i>Picea pungens glauca</i> | Colorado Blue Spruce  | 34.4              | lower branch pruning, embedded screws/nails, minor sap bleeding, competition with adjacent trees                                | 2 Marginal | 3.4               | Remove           |
| 8   | <i>Picea pungens glauca</i> | Colorado Blue Spruce  | 58.7              | lower branch pruning, minor sap bleeding, embedded screws, minor dieback                                                        | 3 Fair     | 4.1               | Remove           |
| 9   | <i>Acer negundo</i>         | Manitoba Maple        | 27.4, 27.0        | dual trunk, significant leans, bark necrosis, fungal growth, significant branch crossover, dual leaders, girdling/injured roots | 1 Poor     | 5                 | Remove           |
| 10  | <i>Acer saccharum</i>       | Sugar Maple           | 34.9              | multiple trunks [one dead], epicormic branching, significant leans, snagged/broken leader                                       | 3 Fair     | 6                 | Remove           |
| 11  | <i>Acer negundo</i>         | Manitoba Maple        | 33.4, 31.9        | exposed roots, lower branch pruning, branch crossover                                                                           | 1 Poor     | 10.9              | Remove           |
| 12  | <i>Abies balsamea</i>       | Balsam Fir            | 44.1              | embedded rope                                                                                                                   | 3 Fair     | 4.4               | Remove           |
| 13  | <i>Acer saccharum</i>       | Sugar Maple           | 27.2              | branch dieback, dead/broken branches, included bark, suspected interior decay                                                   | 3 Fair     | 4.6               | Remove           |
| 14  | <i>Acer saccharum</i>       | Sugar Maple           | 77.2              | minor dieback, embedded screws/fence, lower branch dieback                                                                      | 2 Marginal | 9.5               | Remove           |
| 15  | <i>Pinus sylvestris</i>     | Scots/Scotch Pine     | 34.1              | lower branch dieback, branch crossover                                                                                          | 3 Fair     | 3                 | Remove           |
| 16  | <i>Picea glauca</i>         | White Spruce          | 29.1              | large shoot, multiple leaders, riverbank grape vine, minor lean, offset                                                         | 2 Marginal | 3                 | Remove           |
| 17  | <i>Sorbus americana</i>     | American Mountain Ash | 17.5              | significant lean, wounded trunk                                                                                                 | 2 Marginal | 5.1               | Preserve         |
| 18  | <i>Prunus serotina</i>      | Black Cherry          | 25.7              | minor sap bleeding, lower branch dieback, thin canopy                                                                           | 1 Poor     | 4                 | Remove           |
| 19  | <i>Picea glauca</i>         | White Spruce          | 21.6              | one sided branching, embedded screws/fence                                                                                      | 2 Marginal | 2.5               | Preserve         |
| 20  | <i>Pinus sylvestris</i>     | Scots/Scotch Pine     | 37.7              | basal cavity, dual trunks, included bark, branch crossover, offset canopy                                                       | 3 Fair     | 6                 | Remove           |
| 21  | <i>Acer saccharum</i>       | Sugar Maple           | 10.7, 13.3        | one sided branching, poor branch structure at top, multiple leaders, minor dieback                                              | 2 Marginal | 4.5               | Remove           |
| 22  | <i>Pinus sylvestris</i>     | Scots/Scotch Pine     | 38.8              | dead/broken branches, triple trunk, moderate dieback                                                                            | 2 Marginal | 5.2               | Remove           |
| 23  | <i>Sorbus americana</i>     | American Mountain Ash | 13.0, 10.8,       | lower branch dieback                                                                                                            | 1 Poor     | 4                 | Remove           |
| 24  | <i>Pinus sylvestris</i>     | Scots/Scotch Pine     | 31.9              | lower branch dieback                                                                                                            | 3 Fair     | 4.7               | Remove           |
| 25  | <i>Picea glauca</i>         | White Spruce          | 26.7              | lower branch dieback, embedded screws                                                                                           | 2 Marginal | 2.7               | Preserve         |
| 26  | <i>Pinus sylvestris</i>     | Scots/Scotch Pine     | 32.3              | one sided branching, lower branch pruning, minor dieback                                                                        | 3 Fair     | 4.7               | Remove           |
| 27  | <i>Pinus sylvestris</i>     | Scots/Scotch Pine     | 28.9              | minor lean, lower branch dieback, thin canopy                                                                                   | 2 Marginal | 3                 | Remove           |
| 28  | <i>Picea glauca</i>         | White Spruce          | 26.9              | lower branch dieback, embedded screws                                                                                           | 3 Fair     | 2                 | Preserve         |
| 29  | <i>Acer negundo</i>         | Manitoba Maple        | 16.6              | interior decay, cavities, bark necrosis, lean, poor branch structure                                                            | 1 Poor     | 3.6               | Remove           |
| 30  | <i>Picea glauca</i>         | White Spruce          | 17.4              | lower branch dieback, thin canopy                                                                                               | 2 Marginal | 2                 | Preserve         |
| 31  | <i>Pinus sylvestris</i>     | Scots/Scotch Pine     | 31.6              | crooks in trunk, minor dieback, one sided branching                                                                             | 2 Marginal | 5                 | Remove           |

| Key | Latin Name              | Common Name       | Diameter (cm DBH) | Comments                                                                                     | Assessment | Canopy Radius (m) | Preserve /Remove |
|-----|-------------------------|-------------------|-------------------|----------------------------------------------------------------------------------------------|------------|-------------------|------------------|
| 32  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 39.7              | one sided branching, snagged fall, lower branch dieback                                      | 3 Fair     | 5.8               | Remove           |
| 33  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 33                | debris piled at base, one sided branching, embedded screws                                   | 3 Fair     | 6.1               | Remove           |
| 34  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 22.7              | lower branch dieback, debris piled at base, one sided branching                              | 3 Fair     | 6                 | Remove           |
| 35  | <i>Picea glauca</i>     | White Spruce      | 14.6              | thin canopy, branch crossover, moderate dieback                                              | 2 Marginal | 1                 | Preserve         |
| 36  | <i>Acer platanoides</i> | Norway Maple      | 11.6              | minor lean, branch crossover, exposed basal flare                                            | 3 Fair     | 3.5               | Preserve         |
| 37  | <i>Acer saccharum</i>   | Sugar Maple       | 11.0, 8.2, 13.9   | multiple trunks, blackened bark, branch crossover, dead/broken branches                      | 2 Marginal | 4.8               | Preserve         |
| 38  | <i>Picea glauca</i>     | White Spruce      | 25.5              | minor sap bleeding, lower branch dieback                                                     | 3 Fair     | 3.4               | Preserve         |
| 39  | <i>Acer platanoides</i> | Norway Maple      | 10.5              | minor dieback, crooks in trunk                                                               | 3 Fair     | 4                 | Remove           |
| 40  | <i>Picea glauca</i>     | White Spruce      | 29.2              | lower branch dieback, minor sap bleeding                                                     | 3 Fair     | 3.1               | Preserve         |
| 41  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 38.7              | lower branch dieback, one sided branching, embedded screws                                   | 3 Fair     | 5.5               | Remove           |
| 42  | <i>Picea glauca</i>     | White Spruce      | 25.9              | lower branch dieback, minor sap bleeding, thin canopy                                        | 2 Marginal | 3.4               | Preserve         |
| 43  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 31.7              | minor sap bleeding, one sided branching, lower branch dieback, thin canopy                   | 2 Marginal | 2                 | Remove           |
| 44  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 35.3              | lower branch dieback, minor lean, one sided branching                                        | 3 Fair     | 3.9               | Remove           |
| 45  | <i>Ulmus americana</i>  | American Elm      | 31.6              | embedded screws, embedded dead scots pine, dual leaders, minor included bark                 | 3 Fair     | 5.2               | Remove           |
| 46  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 34.1              | lower branch dieback                                                                         | 3 Fair     | 5.2               | Remove           |
| 47  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 24.6              | lower branch dieback, one sided branching                                                    | 3 Fair     | 3.5               | Remove           |
| 48  | <i>Acer saccharum</i>   | Sugar Maple       | 10.2              | lower branch dieback, crooks in trunk, blackened bark, multiple leaders                      | 1 Poor     | 3.8               | Remove           |
| 49  | <i>Picea glauca</i>     | White Spruce      | 28.1              | lower branch dieback, minor sap bleeding, thin canopy                                        | 2 Marginal | 1.3               | Preserve         |
| 50  | <i>Acer platanoides</i> | Norway Maple      | 27.7, 21.1        | dual trunk, included bark, branch crossover, wounded trunks, embedded fence, crooks in trunk | 2 Marginal | 3.9               | Preserve         |
| 51  | <i>Picea glauca</i>     | White Spruce      | 25                | lower branch dieback, minor sap bleeding, thin canopy                                        | 1 Poor     | 1.1               | Preserve         |
| 52  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 27.5              | moderate dieback, thin canopy                                                                | 1 Poor     | 4.4               | Remove           |
| 53  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 38.8              | one sided branching, lower branch dieback, crooks in trunk, embedded fence                   | 2 Marginal | 5.4               | Remove           |
| 54  | <i>Picea glauca</i>     | White Spruce      | 36.9              | snagged fall, lower branch dieback, thin canopy, embedded fence                              | 1 Poor     | 1.5               | Remove           |
| 55  | <i>Acer platanoides</i> | Norway Maple      | 24.1              | minor lean, multiple leaders, poor branch structure, included bark                           | 2 Marginal | 4                 | Preserve         |
| 56  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 19.3              | lower branch pruning, one sided branching, thin canopy                                       | 1 Poor     | 1.8               | Remove           |
| 57  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 25.6              | lower branch dieback, thin canopy                                                            | 1 Poor     | 1.5               | Remove           |
| 58  | <i>Acer saccharum</i>   | Sugar Maple       | 14.9, 16.0        | dual trunk, included bark at basal flare, wounded basal flare, branch                        | 1 Poor     | 3.8               | Remove           |
| 59  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 22.7              | lower branch dieback, minor sweeping trunk, thin canopy                                      | 2 Marginal | 2.2               | Remove           |
| 60  | <i>Acer saccharum</i>   | Sugar Maple       | 13                | branch pruning, wounded trunk, minor dieback, dead/broken branches                           | 1 Poor     | 2.3               | Remove           |
| 61  | <i>Acer saccharum</i>   | Sugar Maple       | 17.3              | minor lean, trunk wounds, blackened bark                                                     | 2 Marginal | 4.8               | Remove           |
| 62  | <i>Picea glauca</i>     | White Spruce      | 21.8              | lower branch pruning, minor sap bleeding, crook in trunk                                     | 2 Marginal | 2.4               | Remove           |
| 63  | <i>Acer platanoides</i> | Norway Maple      | 13.9              | significant lean, one sided branching, dieback                                               | 1 Poor     | 2.8               | Remove           |
| 64  | <i>Pinus sylvestris</i> | Scots/Scotch Pine | 36                | lower branch pruning, minor dieback                                                          | 3 Fair     | 3.7               | Remove           |
| 65  | <i>Acer saccharum</i>   | Sugar Maple       | 13.5              | minor dieback, one sided branching                                                           | 1 Poor     | 3.1               | Remove           |

| Key | Latin Name                | Common Name         | Diameter (cm DBH) | Comments                                                                                     | Assessment | Canopy Radius (m) | Preserve/Remove |
|-----|---------------------------|---------------------|-------------------|----------------------------------------------------------------------------------------------|------------|-------------------|-----------------|
| 66  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 38.8              | lower branch dieback, significant trunk wound [bleeding]                                     | 3 Fair     | 4.5               | Remove          |
| 67  | <i>Acer saccharum</i>     | Sugar Maple         | 17.9              | blackened bark, old trunk wound [healing]                                                    | 2 Marginal | 3.5               | Remove          |
| 68  | <i>Acer saccharum</i>     | Sugar Maple         | 17.7              | lower branch pruning, blackened bark                                                         | 3 Fair     | 3.7               | Preserve        |
| 69  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 28.3              | lower branch dieback, one sided branching, wounded trunk [bleeding]                          | 2 Marginal | 4.9               | Remove          |
| 70  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 34.7              | lower branch dieback, minor lean                                                             | 3 Fair     | 6.3               | Remove          |
| 71  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 40.2              | minor lean, lower branch dieback, thin canopy                                                | 2 Marginal | 7                 | Remove          |
| 72  | <i>Acer platanoides</i>   | Norway Maple        | 12                | lower branch dieback, wounded branches, one sided branching                                  | 2 Marginal | 5.3               | Remove          |
| 73  | <i>Picea glauca</i>       | White Spruce        | 20.5              | lower branch dieback, thin canopy                                                            | 1 Poor     | 2.3               | Remove          |
| 74  | <i>Acer saccharum</i>     | Sugar Maple         | 17.3              | minor trunk wounds, dieback, blackened bark                                                  | 1 Poor     | 4.6               | Remove          |
| 75  | <i>Prunus serotina</i>    | Black Cherry        | 23.1              | significant lean, one sided branching, offset canopy                                         | 1 Poor     | 6.7               | Remove          |
| 76  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 41                | lower branch dieback, twisted trunk at top, broken branches                                  | 2 Marginal | 7.1               | Remove          |
| 77  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 30.8              | lower branch dieback, minor twisted trunk                                                    | 2 Marginal | 7.2               | Remove          |
| 78  | <i>Prunus serotina</i>    | Black Cherry        | 28.2              | twisted trunk, minor lean, minor dieback                                                     | 3 Fair     | 6.6               | Remove          |
| 79  | <i>Picea glauca</i>       | White Spruce        | 23.9              | lower branch dieback, thin canopy                                                            | 1 Poor     | 4.8               | Remove          |
| 80  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 34.4              | lower branch dieback, thin canopy                                                            | 2 Marginal | 6.4               | Remove          |
| 81  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 3.8               | lower branch dieback, one sided branching                                                    | 2 Marginal | 81                | Remove          |
| 82  | <i>Pinus sylvestris</i>   | Scots/Scotch Pine   | 35.8              | lower branch dieback, one sided branching                                                    | 3 Fair     | 7.7               | Remove          |
| 83  | <i>Acer platanoides</i>   | Norway Maple        | 19                | minor dieback                                                                                | 3 Fair     | 3.3               | Remove          |
| 84  | <i>Acer saccharum</i>     | Sugar Maple         | 34.4, 20.6, 53.6  | multiple leaders, included bark, blackened bark, dead branches, bark necrosis, girdling root | 2 Marginal | 5.3               | Remove          |
| 85  | <i>Acer saccharum</i>     | Sugar Maple         | 20.4              | blackened bark, poor branch structure, branch crossover, minor dieback                       | 2 Marginal | 3.8               | Remove          |
| 86  | <i>Acer saccharum</i>     | Sugar Maple         | 18.2              | blackened bark, trunk decay                                                                  | 1 Poor     | 5.2               | Remove          |
| 87  | <i>Acer platanoides</i>   | Norway Maple        | 31.5              | dual leaders, included bark, embedded metal, blackened bark                                  | 3 Fair     | 5                 | Remove          |
| 88  | <i>Acer saccharum</i>     | Sugar Maple         | 12.6              | competition with adjacent trees                                                              | 3 Fair     | 5.1               | Remove          |
| 89  | <i>Acer saccharum</i>     | Sugar Maple         | 16.3              | crook in trunk, branch crossover                                                             | 3 Fair     | 5.4               | Remove          |
| 90  | <i>Acer saccharum</i>     | Sugar Maple         | 11.1              | dead/broken branches, branch crossover                                                       | 1 Poor     | 3.5               | Remove          |
| 91  | <i>Acer saccharum</i>     | Sugar Maple         | 10.1              | dual leaders, included bark, dead/broken branches                                            | 2 Marginal | 4.1               | Remove          |
| 92  | <i>Acer saccharum</i>     | Sugar Maple         | 24.5              | multiple leaders                                                                             | 3 Fair     | 4                 | Remove          |
| 93  | <i>Acer saccharum</i>     | Sugar Maple         | 21.1              | blackened bark, bark necrosis, poor branch structure                                         | 2 Marginal | 4.6               | Remove          |
| 94  | <i>Acer saccharum</i>     | Sugar Maple         | 11.1              | dual leaders, included bark, bark necrosis, dieback                                          | 1 Poor     | 2.1               | Remove          |
| 95  | <i>Acer saccharum</i>     | Sugar Maple         | 18.9              | trunk decay, bark necrosis, dieback                                                          | 1 Poor     | 5.2               | Remove          |
| 96  | <i>Acer platanoides</i>   | Norway Maple        | 24.9              | grown through chain link fence, significant crook/lean                                       | 1 Poor     | 7.5               | Remove          |
| 97  | <i>Acer saccharum</i>     | Sugar Maple         | 12.1              | dual leaders, included bark, lean                                                            | 2 Marginal | 4.9               | Remove          |
| 98  | <i>Thuja occidentalis</i> | Eastern White Cedar | 22.6, 19.0,       | multiple trunks, branch crossover, included bark [cracked]                                   | 2 Marginal | 3.8               | Remove          |
| 99  | <i>Thuja occidentalis</i> | Eastern White Cedar | 20.9              | dual leaders, lower branch pruning                                                           | 3 Fair     | 2.3               | Remove          |
| 100 | <i>Thuja occidentalis</i> | Eastern White Cedar | 12.2              | lower branch dieback, thin canopy                                                            | 1 Poor     | 2.3               | Remove          |
| 101 | <i>Thuja occidentalis</i> | Eastern White Cedar | 15.7              | dual leaders, lower branch pruning                                                           | 2 Marginal | 2.7               | Remove          |
| 102 | <i>Thuja occidentalis</i> | Eastern White Cedar | 17.6              | embedded screws [birdhouse], dual leaders                                                    | 3 Fair     | 1.9               | Remove          |
| 103 | <i>Acer saccharum</i>     | Sugar Maple         | 32.7              | sweeping trunk, multiple leaders                                                             | 3 Fair     | 6.4               | Remove          |

## Appendix D: Selected Site Photos



**Photo A:** Showing Trees at rear of site (Trees Nos. 15-82)



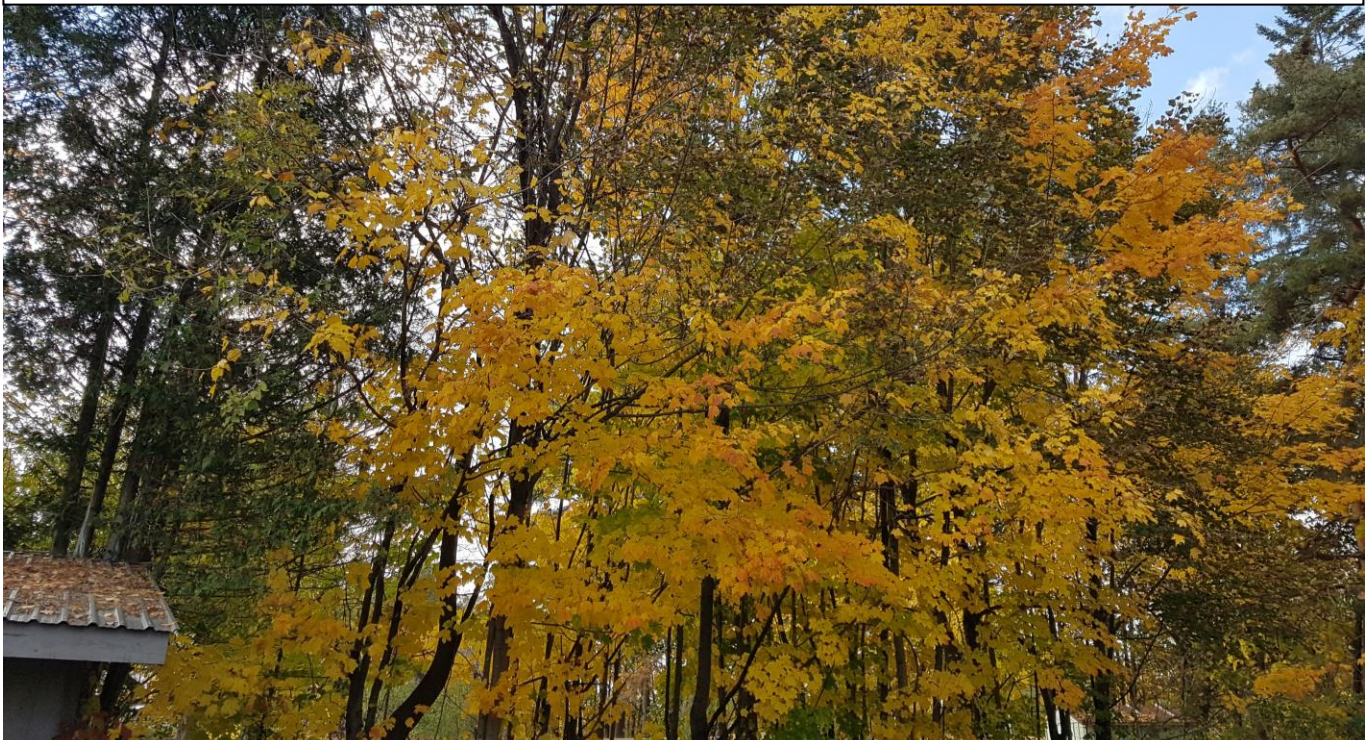
**Photo B:** Showing Tree Nos 6-8,  
Colorado Blue Spruce to be removed



**Photo C:** Showing Trees Nos. 13, 14  
to be removed.



**Photo E:** Showing Trees Nos 9 (background) & 11 (foreground) with significant leans, dead/broken branches, bark necrosis, epicormic branching, and fungal growth.



**Photo D:** Showing Tree Nos. 85-103, largely comprised of small-diameter Sugar Maples which conflict with the proposed development and are recommended for removal.