



## **Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR**

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**Table of Contents**

|              |                                                  |          |
|--------------|--------------------------------------------------|----------|
| <b>C1.00</b> | <b>Introduction .....</b>                        | <b>1</b> |
| <b>C2.00</b> | <b>Arborist Report .....</b>                     | <b>2</b> |
| C2.01        | Introduction.....                                | 2        |
| C2.02        | Proposal Description and Context.....            | 3        |
| C2.03        | Investigation / Evaluation .....                 | 3        |
| C2.04        | Impacts and Mitigation Measures .....            | 4        |
| C2.05        | Recommendations.....                             | 6        |
| <b>C3.00</b> | <b>Tree Inventory and Preservation Plan.....</b> | <b>6</b> |

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

**C1.00 Introduction**

An Arborist Report and Tree Inventory and Preservation Plan are technical reports and drawings that present detailed information on existing tree and vegetation on and around the proposed development site. It determines the potential effects of the proposed development on existing trees and vegetation on and around the Site and seeks to minimize injury and loss of trees and vegetation and propose restoration / replanting solutions to maintain and enhance the Township's tree canopy.

Trees and woodlands throughout our community are an essential component of our urban infrastructure contributing to a high quality of life. All trees and woodlands, whether on public or private land, represent the urban forest. Collectively, they help make our community healthy and resilient in countless ways including cleaning the air and water, reducing flood risk, conserving energy, counteracting urban heat stress, and increasing property value. The Township works to protect trees in our community's urban forest which are important for our quality of life today and for the future. Development applications are required to provide an Arborist Report and Tree Inventory and Preservation Plans prepared by an arborist to identify and provide recommendations for retention or removal of trees, which are reviewed as part of the development process.

The studies must be completed by a certified arborist who is either:

- A full member in good standing, of the Ontario Professional Foresters Association (OPFA).
- A full member in good standing, of the American Society of Consulting Arborists (ASCA).
- A full member in good standing, of the International Society of Arboriculture (ISA).
- A landscape architect certified and in good standing, by the Ontario Association of Landscape Architects (OALA).
- A registered professional forester (RPF) as defined by the *Professional Foresters Act* S.O. 2000.

An Arborist Report, Tree Inventory and Preservation Plan may be required as part of the following applications:

- Official Plan Amendment.
- Zoning By-law Amendment.
- Draft Plan of Subdivision

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

- Draft Plan of Condominium.
- Site Plan Control.
- Consent Applications.
- Minor variances.
- Site Alteration Permit.

An Arborist Report, Tree Inventory and Preservation Plan are required to:

- Demonstrate conformity to any applicable by-laws or Official Plan policies.
- Provide a basis on which to assess the proposed application with regard to tree preservation / protection issues and the overall contribution to the urban forest canopy cover.
- Confirm whether any Species at Risk are located on the Site.
- Ensure replacement plantings are provided, which are required when a tree 20 cm DBH or greater has been removed. The location of the replacement plantings must be shown on the drawing in accordance with the ratios outlined in the table below:

**Table 1: Replacement Plantings Ratios**

| <b>DBH of Trees to be Removed</b> | <b># of Replacement Trees Required</b> |
|-----------------------------------|----------------------------------------|
| 0 to 19 cm                        | 0                                      |
| 20 to 30 cm                       | 1                                      |
| 31 to 40 cm                       | 2                                      |
| 41 to 50 cm                       | 3                                      |
| 51 to 100 cm                      | 4                                      |
| >100 cm                           | 5                                      |

## **C2.00 Arborist Report**

An Arborist Report shall contain, at a minimum the following information:

### **C2.01 Introduction**

- Address of the property.
- General site location of the subject property.
- Project name (if applicable).
- Developer and Owner's contact information.
- Author name, title, qualifications, company name, and appropriate stamp.

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

- The assignment of the professional(s) and their obligation throughout the entire project period.
- Brief description of the proposed development.
- Overview of the study area.
- Purpose of the study.
- Location and context map.
- Date of preparation / submission / site visit.

**C2.02 Proposal Description and Context**

- A description of the proposal, development stats (such as number of units, site area) type of development proposed, building height, parking areas, access points, location of amenity areas, proposed phasing.
- A description of the existing on-site conditions as well as surrounding areas, roads, natural areas, buildings, parking areas.
- A description of the proposed development during construction and post development that may have an impact on the trees/vegetation including the area of development, and units, servicing, SWM, roads, parkland areas, recreational uses, lighting, site remediation, grading, and filling for the subject and adjacent lands.
- A Concept Plan for the development including building location, parking, access, amenity areas, grading and natural features, and any natural hazards.

**C2.03 Investigation / Evaluation****C.2.03.1 Vegetation Inventory**

- A description of the site vegetation and condition at the time of inspection including the private property, Township property, and adjacent properties that may be impacted by the development.
- Identification of any species at risk.
- A photo log of the Site showing site conditions.
- Descriptions of the tree(s) identified on the Tree Inventory and Preservation Plan (linked to the drawing and the corresponding tree identification numbers and tags) in a table format as shown below including: species (common and botanical name), size (DBH), health (a general rating of Poor, Fair, or Good based on tree age, presence of disease, canopy structure, proportion of live wood, etc.), condition (a general rating of Poor, Fair, or Good based on the presence of cavities, decay, broken limbs / trunk, lean, root damage, form, etc.), hazard rating, ownership, and recommendation to preserve, remove, transplant, or injure.

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

### **C2.04 Impacts and Mitigation Measures**

- Trees proposed to be removed, retained, or transplanted and the reason for each recommendation.
- A discussion of the rationale for proposed tree removal or retention.
- Information to address tree protection measures for all retained trees.
- A detailed tree protection methodology section to address those particular conditions where the proposed development will have an impact on the health and structural integrity of the trees, which conform to, or are consistent with Township Details and Specifications.

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

**Table 2: Tree Descriptions / Identifications**

| <b>Tree ID</b> | <b>Species<br/>Common Name</b> | <b>Species<br/>Botanical Name</b> | <b>Size<br/>(DBH)</b> | <b>Condition<br/>Rating</b> | <b>Hazard<br/>Rating</b> | <b>Ownership</b> | <b>Recommendation</b> |
|----------------|--------------------------------|-----------------------------------|-----------------------|-----------------------------|--------------------------|------------------|-----------------------|
|                |                                |                                   |                       |                             |                          | Subject Site     | Remove                |
|                |                                |                                   |                       |                             |                          | Township         | Preserve              |
|                |                                |                                   |                       |                             |                          | Neighbour        | Injure                |

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

**C2.05 Recommendations**

- Recommendation as to whether each tree or grouping of trees identified on the drawing should be preserved, removed, or transplanted and the reason for each recommendation.
- Recommendations and methods for the containment and removal of any invasive species found.
- Identification of any potential and imminent hazard tree(s)
- Proposed tree replacement and other recommendations including the size and species of replacement trees.
- Recommendations for the maintenance and management of trees to be preserved (i.e., required pruning, fertilization, or cable work).
- A cost valuation associated with trees to be removed and / or preserved may be required.

**C3.00 Tree Inventory and Preservation Plan**

A Large format drawing, typically at a metric 1:500 scale, visually displaying the information presented in the Arborist Report and other relevant information within the report including:

- The surveyed location of all the tree(s) on the subject property and within 6 m of the subject property on adjacent properties.
- Tree identification numbers.
- An indication as to whether the tree(s) is / are recommended for preservation, transplant, or removal.
- Tree protection zone (TPZ) limits for all trees, which must be in accordance with the table below or as specified by the Arborist:

**Table 3: Tree Protection Zone (TPZ) Limits**

| <b>Trunk Diameter DBH</b> | <b>Minimum Protection Distance Required*</b> |
|---------------------------|----------------------------------------------|
| <10 cm                    | 1.8 m                                        |
| 11 to 40 cm               | 2.4 m                                        |
| 41 to 50 cm               | 3.0 m                                        |
| 51 to 60 cm               | 3.6 m                                        |
| 61 to 70 cm               | 4.2 m                                        |
| 71 to 80 cm               | 4.8 m                                        |

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

| <b>Trunk Diameter DBH</b> | <b>Minimum Protection Distance Required*</b> |
|---------------------------|----------------------------------------------|
| 81 to 90 cm               | 5.4 m                                        |
| 91 to 100 cm              | 6.0 m                                        |

\*The TPZ is measured as a radius from the edge of the tree trunk and is dependent on DBH measured as the diameter of the trunk 1.4 m above the ground.

- The location of tree protection fencing.
- An outline of the proposed development including grade changes, structures, and work areas / zones associated with the application.
- Location of topsoil stockpiles.
- The Township's detail(s) of tree protection barrier type.
- Storage and staging areas including the construction access route.
- The drip lines of vegetated areas (as delineated by NVCA when in regulated areas).
- Qualified Tree Consultant's contact information.
- Township address of the subject property.
- Key map (approximate scale of 1:10,000) in the top right corner of the drawing indicating the location of the Site in relation to a larger area (at least one major intersection should be visible).
- Working scale of the drawing (i.e., metric scale between 1:200 and 1:1,000).
- Complete legend / key plan.
- Date of preparation / submission / site visit.
- The Site Servicing and Grading Drawing that may accompany some applications must include the existing and proposed grades.

The scope of the Arborist Report, Tree Inventory and Preservation Plan will be confirmed as part of the pre-consultation process. No activity shall proceed onsite until a full evaluation of the existing vegetation and recommendations are determined and an approved drawing for development has been processed or reached a satisfactory stage.

Developers should be aware of the County and local tree by-laws, policies, and guidelines.

Boundary trees shall be evaluated on a site-by-site basis and, where injury or removal is proposed, written consent is required from the neighbouring boundary tree owner as per the *Ontario Forestry Act*.

## Appendix C – Arborist Report and Tree Inventory and Preservation Plan TOR

If the proposed development is revised, the Arborist Report and Tree Inventory and Preservation Plan shall reflect the revisions by providing an updated report and/or letter from the author indicating the changes to recommendations and conclusions.

If the submitted study is incomplete, is authored by an unqualified individual, or does not contain adequate analysis, the application(s) will be considered incomplete and returned to the Developer.