



## Tree Conservation Report

**Type of Document:**

Tree Conservation Report

**Project Name:**

Chick-Fil-A

4280 Innes Rd, Orléans, Ottawa, ON K4A 5E6

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## Legal Notification

This Report was prepared by EXP Services Inc. for the account of the **Chick-fil-A-Canada ULC.**

Any use which a third party makes of this Report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP Services Inc. accepts no responsibility for damages, if any, suffered by any third party due to decisions made or actions based on this report.

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### **Drawing TPP – Tree Protection Plan**

To be read in conjunction with this report

## 1. Introduction

This Report has been prepared for Chick-Fil-A, 4280 Innes Rd, Orléans, Ottawa, ON K4A 5E6

This Report performs the following:

- Evaluate all trees that may be affected by the proposed construction in and close to the construction zone.
- Determine what trees are to be removed on the designated properties.
- Determine the necessary remediation permitting the preservation of trees suitable for retention.
- Evaluate and protect all trees within 6m away from the designated property limits of the proposed construction.
- Evaluate and protect the trees on adjacent properties that the proposed construction may impact.

## 2. General Overview



Figure 1: Site Aerial Photo: Chick-Fil-A, 4280 Innes Road, Orleans, Ottawa, ON.

The site is approximately 4740 square meters in area, located in the southeast of the intersection of Innes Road and Lanthier Dr., Orleans, Ottawa, Ontario. Currently the subject site is a parking lot, the proposed development is to construct a new Chick-Fil-A restaurant with drive-through lanes.

A tree inventory on site was conducted on August 23rd, 2024.

### 3. Method of Evaluation

The tree assessment, recommendations on tree removal, protection and compensation in this report are in accordance with the City of Ottawa **Tree Preservation By-law 2020-340**.

- Any tree 10 centimeters in diameter or greater and City-owned trees of any diameter require a tree permit issued under the Tree Protection Bylaw.
- “**Distinctive tree**” means any tree located on private property with a DBH of 30 cm or greater within the urban area.

The Tree Protection By-law requires that the measurement be taken at a height of 1.3 meters (51 inches) above ground level.

Drawing TPP denotes each tree location and associated identification number for ease of reference.

#### 3.1 Assessment

The existing Trees were assessed according to the International Society of Arboriculture Methodology by visual inspection from ground locations only. They were not climbed or assessed using invasive techniques (trunk boring). The tree inventory and observations are summarized in Appendix A.

#### 3.2 Condition

Tree health and condition are evaluated as poor, fair, and good:

- Poor - Considerable dieback, contorted growth, diseased or extensive physical damage, root damage, decay, cavities, and presence of secondary agents (harmful insects) that aid in tree decline. The plant may have reached its normal life expectancy.
- Fair—Some dieback and signs and symptoms of stress by non-living and living agents compromise aesthetic value; however, the tree continues to grow healthy.
- Good - healthy, vigorous growth, strong branch attachment, and taper, no signs or symptoms of stress.

### 4. Vegetation Summary

The site inventory captured **forty-seven (47)** individual trees, as summarized in Appendix A—Tree Inventory Chart—a list of trees within 10 meters of the property's boundary, including location, species, condition, and size information.

The location and spread of the canopy of all trees noted herein are depicted on the Drawing TPP - Tree Protection Plan, which shall accompany this report.

#### Trees on the Subject Site and Adjacent site

In total, **twenty-eight (28) trees** were found within the subject site except right of way in the leased area. All inventoried trees have been identified with their scientific and common names. Locations of all trees were identified on the Tree Protection Plan. The species include Honey Locust, Littleleaf Linden, and Blue Spruce. Outside the subject site, there are **twenty (20) trees** adjacent to the development area and in the right of way.

#### 4.1 Tree within Municipal Right of Way

There are **seven (7) trees #1 to #7** within the municipal right of way.

#### 4.2 Study Criteria

The individual trees and tree grouping were analyzed utilizing the following categories:

- Common and Botanical Classification
- General Health
- Size
- Species Potential for Preservation in an Urban Situation
- Site Potential to Support vegetation given proposed grading and drainage changes.

Considering all the above factors, tree preservation or removal recommendations were provided.

#### 4.3 Removal & Preservation Recommendations

Trees will not thrive if major disruptions occur in their microenvironment. Changes in grade, drainage, and wind patterns can all contribute to their decline and eventual death. Dead trees can result in costly removal fees once construction around the trees is completed. Therefore, extreme care must be taken with any trees scheduled for preservation. Removing trees before construction is cost-effective, but every effort should be made to preserve trees where possible. The decision to maintain trees must be coupled with sound arboriculture methods to ensure protected trees' long-term health and survival.

##### Trees Recommended for Removal

According to the proposed construction site and future easement, **Trees #3 to #6, # 8 to # 13, # 30 & # 35 and N7, N8** will interfere with construction, and they should be removed, these are total **seventeen (17) trees**. Refer to Appendix A – Tree Inventory Chart & TPP drawing for the detailed tree information.

##### Trees Recommended for Protection or Preservation

According to the proposed site construction and future easement, **Trees # 1, # 2, #7, # 14 to #25** are close to the construction but their CRZs will not be touched or have minor encroachment due to excavation for new curb, these trees will be protected by the tree hoardings.

**Trees #26 to #29** are in the existing islands. The grading of these islands will remain, no injury to these trees and to be protected with tree protection fence.

**Trees # N1 to N2** won't be impacted and will remain, **N9 to N12** are close to the construction access route, these trees should also be protected with tree Protection.

Please refer to Appendix A – Tree Inventory Chart & TPP drawing for detailed tree information.

## 4.4 Tree Removal Compensation

According to the City's tree compensation policy, Tree Protection By-law No. 2020-340, removes **seventeen (17) trees**, #3 to #6, # 8 to # 13 and # 30 & # 35, #N7, #N8, their DBHs are 10cm and larger, shall be counted for tree compensation. The following chart provides the compensation calculation according to the policy. A total of **seventeen (17) trees** should be planted as compensation.

The landscape plan proposes **eleven (11) new trees**, 60mm caliper size.

According to the updated Geotechnical Investigation Report (Report PG7345-1 dated December 12, 2024) the soil on site is low to medium sensitivity **silty clay** deposit, where trees are located near buildings found on cohesive soils. It should be noted that footings supported by a deep foundation consisting of end-bearing piles will not be subject to **tree planting setbacks** restrictions.

- Large trees (mature height over 14 m) can be planted within these areas provided that a tree to foundation setback equal to the full mature height of the tree can be provided.
- Tree planting setback limits may be reduced to 4.5 m for small (mature tree height up to 7.5m) and medium size trees (mature tree height 7.5 m to 14 m), provided that the conditions noted below are met.
- A small tree must be provided with a minimum of 25 m<sup>3</sup> of available soils volume while a medium tree must be provided with a minimum of 30 m<sup>3</sup> of available soil volume, as determined by the Landscape Architect. The developer is to ensure that the soil is generally uncompacted when backfilling in street tree planting locations.
- The tree species must be small (mature tree height up to 7.5 m) to medium size (mature tree height 7.5 m to 14 m) as confirmed by the Landscape Architect.
- Grading surrounding the tree must promote drainage to the tree root zone (in such a manner as not to be detrimental to the tree), as noted on the Grading Plan.

The tree planting plan has been prepared in conjunction with the recommendations on the Geotechnical Investigation Report. The selection of tree species includes native species such as red maple, red oak, chokecherry, etc. These species are placed according to the space available and recommended setback from the building, they are salt & drought tolerant, also these trees will provide sufficient canopy cover while they are growing to mature sizes.

## 5. General Tree Preservation Measures

The following guidelines are to be observed where groups and individual trees are stated for preservation.

### 5.1 Construction Procedures

Construction procedures are very detrimental to the health of existing trees, and the following activities must be prevented:

- Burning of waste material in the vicinity of existing trees.
- Installation of rigging cables in the branches or around the trunks of existing trees.
- Flushing of cement or concrete mixing machines over the root systems.
- Storage of construction materials and vehicles near existing trees.
- Tree Critical Root Zones (CRZ) and the City's Tree Protection Fencing must be in place before any construction work begins.

## 5.2 Root Cutting and Mitigation Measures

Root damage shall be minimized by restricting equipment in the vicinity of the existing CRZ and limiting equipment within the construction limits. This will help minimize damage if there is any excavation in the areas of a preserved tree. It is critical to avoid damage to the structural root plate in order to prevent affecting tree stability and thus creating a hazard tree. In general, most of the fibrous roots of the tree are contained in the top 30 cm (11.75") of the soil and may easily be severed during excavation, while structural roots are located deeper. Hand digging, low pressure hydro-vac or air spade exploratory digging will aid in determining the damage of the tree root system. As mentioned earlier. All opportunities to avoid root and grade damage within the CRZ shall be taken, this shall include limiting machinery within the CRZ as much possible and the employment of horizontal hoarding (i.e., 300 mm depth wood much with plywood board on top) where work is proposed within the CRZ of a tree recommended for preservation.

Any roots that are severed during construction shall be cut cleanly to minimize decay and entry points for disease. If roots will be exposed for more than a few hours, mulch, wet burlap or soil shall be applied as soon as possible and watered regularly to prevent roots from drying out, under the supervision of a Certified Arborist.

**Note.** General contractor will be responsible for root cutting and an arborist shall be retained by general contractor for the execution of root cutting.

## 5.3 Preservation Prescriptions

Where necessary, tree preservation prescriptions shall be fulfilled to the following specifications:

### Ground Injected Fertilizer

Fertilize with water-suspended Plant Products 5 -10 - 15, Soil Injected Fertilizer 10-12 inches below grade and throughout the entire preserved root zone.

### Install Partially Composted Woodchips

Install a layer of partially composted 150mm wood chips over the protected root zone, to improve soil structure, protect the minimum preserved root zone, and conserve soil moisture levels.

### Tree Pruning

Maintenance Prune the canopy of specified trees to remove dead, diseased, and crossing branches 1-inch diameter and larger. Clearances prune the canopy to provide 1-1.5m feet of clearance to the construction site, and as necessary, elevate the canopy 2.4-3m feet above lawn areas.

## 6. Assumption & Limitations

This assessment and evaluation are limited to the assignment and purpose, as stated in the Introduction.

The assessment has been conducted using a visual examination of only the above-ground parts of trees. Unless specifically noted, trees were not cored, probed, sounded, or climbed. Parts of the trees below ground, unless specifically noted, were not inspected nor exposed by excavation for assessment.

Trees are living organisms that respond individually to outside influences such as climate, biotic changes, and abiotic changes. As such, this assessment is limited to the observations made during the site inspection.

On behalf of EXP Services Inc.





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## Appendix A – Tree Inventory Chart

Tree ID#	Botanical name	Common name	Quantity	DBH (cm)	Crown (m)	CRZ=10x Dim (m)	Ownership	Condition	Action	Injured	Reasons for Removal	Distinctive Tree (In private property with a DBH of 30 cm)
1	<i>Tilia cordata</i>	Littleleaf Linden	1	30	6	3	ROW	Good	Protect	Yes		Yes
2	<i>Picea pungens</i>	Blue Spruce	1	28	5	2.8	ROW	Good	Protect	Yes		No
3	<i>Picea pungens</i>	Blue Spruce	1	31	6	3.1	ROW	Fair	Removed	—	Construction	Yes
4	<i>Picea pungens</i>	Blue Spruce	1	29	5	—	ROW	Good	Removed	—	Construction	No
5	<i>Tilia cordata</i>	Littleleaf Linden	1	30	6	3	ROW	Fair	Removed	—	Construction	Yes
6	<i>Picea pungens</i>	Blue Spruce	1	31	4	3.1	ROW	Good	Removed	—	Construction	Yes
7	<i>Picea pungens</i>	Blue Spruce	1	31	6	3.1	ROW	Good	Protect	Yes		Yes
8	<i>Gleditsia Triacanthos</i>	Honey Locust	1	20	5	—	Private onsite	Good	Removed	—	Construction	No
9	<i>Tilia cordata</i>	Littleleaf Linden	1	27	8	—	Private onsite	Good	Removed	—	Construction	No
10	<i>Gleditsia Triacanthos</i>	Honey Locust	1	28	5	—	Private onsite	Good	Removed	—	Construction	No
11	<i>Tilia cordata</i>	Littleleaf Linden	1	24	7	—	Private onsite	Good to fair	Removed	—	Construction	No
12	<i>Picea pungens</i>	Blue Spruce	1	28	4	2.8	Private onsite	Good	Removed	—	Construction	No
13	<i>Picea pungens</i>	Blue Spruce	1	26	3	2.6	Private onsite	Fair	Removed	—	Construction	No
14	<i>Picea pungens</i>	Blue Spruce	1	25	5	2.5	Private onsite	Fair	Protect	Yes		No
15	<i>Picea pungens</i>	Blue Spruce	1	36	4	3.6	Private onsite	Good	Protect	Yes		Yes
16	<i>Gleditsia Triacanthos</i>	Honey Locust	1	20	5	2	Private onsite	Fair	Protect	Yes		No
17	<i>Gleditsia Triacanthos</i>	Honey Locust	1	20	5	2	Private onsite	Fair	Protect	Yes		No
18	<i>Gleditsia Triacanthos</i>	Honey Locust	1	14	3	1.4	Private onsite	Good	Protect	No		No
19	<i>Gleditsia Triacanthos</i>	Honey Locust	1	16	4	1.6	Private onsite	Good	Protect	Yes		No
20	<i>Gleditsia Triacanthos</i>	Honey Locust	1	16	5	1.6	Private onsite	Good	Protect	No		No
21	<i>Gleditsia Triacanthos</i>	Honey Locust	1	14	4	1.4	Private onsite	Good	Protect	No		No
22	<i>Gleditsia Triacanthos</i>	Honey Locust	1	13	4	1.3	Private onsite	Fair	Protect	No		No
23	<i>Gleditsia Triacanthos</i>	Honey Locust	1	16	4	1.6	Private onsite	Good	Protect	No		No
24	<i>Gleditsia Triacanthos</i>	Honey Locust	1	13	6	1.3	Private onsite	Fair	Protect	No		No
25	<i>Gleditsia Triacanthos</i>	Honey Locust	1	15	6	1.5	Private on adjacent Site	Good	Protect	Yes		No
26	<i>Gleditsia Triacanthos</i>	Honey Locust	1	24	5	2.4	Private onsite	Good	Protect	Yes		No
27	<i>Gleditsia Triacanthos</i>	Honey Locust	1	24	5	2.4	Private onsite	Good	Protect	Yes		No
28	<i>Gleditsia Triacanthos</i>	Honey Locust	1	28	5	2.8	Private onsite	Good	Protect	Yes		No
29	<i>Gleditsia Triacanthos</i>	Honey Locust	1	25	5	2.5	Private onsite	Good	Protect	Yes		No
30	<i>Gleditsia Triacanthos</i>	Honey Locust	1	27	5	—	Private onsite	Good to fair	Removed	—	Construction	No
31	<i>Gleditsia Triacanthos</i>	Honey Locust	1	25	6	—	Private onsite	Fair to poor	Removed	—	Construction	No
32	<i>Gleditsia Triacanthos</i>	Honey Locust	1	25	5	—	Private onsite	Good	Removed	—	Construction	No
33	<i>Gleditsia Triacanthos</i>	Honey Locust	1	25	5	—	Private onsite	Good to fair	Removed	—	Construction	No
34	<i>Gleditsia Triacanthos</i>	Honey Locust	1	24	5	—	Private onsite	Fair to poor	Removed	—	Construction	No
35	<i>Gleditsia Triacanthos</i>	Honey Locust	1	25	4	—	Private onsite	Fair	Removed	—	Construction	No

### NEIGHBOR TREES

N1	<i>Gleditsia Triacanthos</i>	Honey Locust	1	13	3	1.3	Private on adjacent Site	Good	Retain	No		No
N2	<i>Gleditsia Triacanthos</i>	Honey Locust	1	16	6	1.6	Private on adjacent Site	Fair	Retain	No		No
N3	<i>Gleditsia Triacanthos</i>	Honey Locust	1	16	6	1.6	Private on adjacent Site	Fair	Protect	No		No
N4	<i>Gleditsia Triacanthos</i>	Honey Locust	1	18	5	1.8	Private on adjacent Site	Fair	Protect	No		No
N5	<i>Gleditsia Triacanthos</i>	Honey Locust	1	17	6	1.7	Private on adjacent Site	Fair	Protect	No		No
N6	<i>Gleditsia Triacanthos</i>	Honey Locust	1	15	4	1.5	Private on adjacent Site	Good to fair	Protect	No		No
N7	<i>Gleditsia Triacanthos</i>	Honey Locust	1	16	6	—	Private on adjacent Site	Good	Removed	—	Construction	No
N8	<i>Gleditsia Triacanthos</i>	Honey Locust	1	14	5	—	Private on adjacent Site	Good to fair	Removed	—	Construction	No
N9	<i>Gleditsia Triacanthos</i>	Honey Locust	1	11	3	1.1	Private on adjacent Site	Good	Protect	No		No
N10	<i>Gleditsia Triacanthos</i>	Honey Locust	1	12	4	1.2	Private on adjacent Site	Fair	Protect	No		No
N11	<i>Gleditsia Triacanthos</i>	Honey Locust	1	13	5	1.3	Private on adjacent Site	Fair	Protect	No		No
N12	<i>Gleditsia Triacanthos</i>	Honey Locust	1	13	5	1.3	Private on adjacent Site	Fair	Protect	No		No

## Appendix B – Compensation Planting Plan

Existing Tree ID #	3	4	5	6	8	9	10	11	12	13	30	31	32	33	34	35	N7	N8	Total Trees Required for Compensation
Existing Tree DBH (cm)	31	29	30	31	20	27	28	24	28	26	27	25	25	25	24	25	16	14	
Existing Tree Conditions	Fair	Good	Fair	Good	Good	Good	Good	Good to Fair	Good	Fair	Good to Fair	Fair to Poor	Good	Good to Fair	Fair to Poor	Fair	Good	Good to Fair	
Action	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	Remove	
Trees Required for Compensation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17

## Appendix C – Existing Conditions with Tree Cover Plan

See the drawing at the end.

## Appendix D – Proposed Development with Tree Cover Plan

See the drawing at the end.

## Appendix E – Existing Tree Photos

Photo 1 – Tree # 3 ,#4 Blue Spruce (*Picea pungens*) to be removed due to construction.





Photo 2 – Tree # 5 Littleleaf Linden (*Tilia cordata*) to be removed due to construction.



Photo 3 – Tree # 6 Blue Spruce (*Picea pungens*) to be removed due to construction.





Photo 4 – Tree # 8 Honey Locust (*Gleditsia Triacanthos*) to be removed due to construction.





Photo 5 –Tree # 9 Littleleaf Linden (*Tilia cordata*) to be removed due to construction.





Photo 6 –Tree # 10 Honey Locust (*Gleditsia Triacanthos*) to be removed due to construction.



Photo 7 – Tree # 11 Littleleaf Linden (*Tilia cordata*) is to be removed due to construction.





Photo 8 – Tree # 12 and #13 Blue Spruce (*Picea pungens*) to be removed due to construction.



Photo 9 – Tree # 30 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.





Photo 10 – Tree # 31 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.



Photo 11 – Tree # 32 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.





Photo 12 – Tree # 33 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.



Photo 13 – Tree # 34 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.





Photo 14 – Tree # 35 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.



Photo 15 – Tree # N7 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.





Photo 16 – Tree # N8 Honey Locust (Gleditsia Triacanthos) to be removed due to construction.


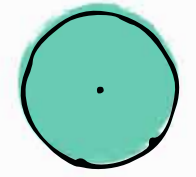






Appendix C – Existing Conditions with Tree Cover Plan



LEGEND

-  EXISTING CONIFEROUS TREE
-  EXISTING DECIDUOUS TREE
-  TREES TO BE REMOVED
-  PROP.LIMITED OF LEASE



Appendix D – Proposed Development with Tree Cover Plan

