



## Arborist Report

*ONRoute*

**Type of Document:**

Tree Inventory and Assessment Report

**Project Name:**

ONroute Port Hope

845 ON-401 Port Hope, Ontario

**Project Number:**

BRM-22021342-E0

**Date + time Submitted:**

2026-06-05

## Legal Notification

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TPP-1 - Tree Preservation Plan – to be read in conjunction with this report.



## 1. Introduction

EXP was retained by ONroute to prepare a Tree Inventory and Preservation Plan in support of the proposed parking lot expansion at the Port Hope ONroute located at 845 ON-401 Port Hope, Ontario. This report provides the following:

- An assessment of all trees on and within 6 m of the proposed construction limits.
- Identification of tree removal requirements and opportunities for tree preservation based on the proposed site works.
- A summary of compensation requirements.

The inventory and evaluations were completed in accordance with accepted arboricultural practices, the Port Hope Tree Protection Bylaw No. 75/2021, and the Port Hope Tree Planting & Protection Policy.



Figure 1: Site Aerial Photo: 845 ON-401, Port Hope, Ontario.

The subject property is located on the south side of Highway 401, accessed from the eastbound lanes, and contains a gas station, a fast-food building, a surface parking lot, and a landscaped picnic area. The project site is located within the existing picnic area at the west end of the property, occupying a portion of the southwest corner of the site. This area is currently characterized by lawn, landscape trees, and outdoor seating that provide a landscape buffer between the developed Onroute facilities and the surrounding lands.

## 2. Policy Framework

The subject property is regulated by the Port Hope Tree Protection Bylaw No. 75/2021, which governs the injury or removal of trees on private lands within the municipality. In accordance with the bylaw and the municipal development review process, the proponent is required to prepare a pre-development tree inventory, a site assessment report, and a tree protection plan. These documents must identify existing tree resources, assess their condition and bylaw status, and outline appropriate protection measures to ensure that existing trees are preserved or managed responsibly throughout construction.

## 3. Method of Evaluation

### 3.1 Tree Inventory

The tree inventory was completed on May 20, 2026. All trees located on and within 6 m of the proposed construction limits were included in the tree inventory. Tree locations were determined using the provided topographic survey, supplemented by aerial imagery and field-based estimations from known reference points.

Trees included in the study were identified with the numbers 1-26. Refer to TPP-1 for the locations of the trees identified, Appendix A for detailed tree inventory data, and Appendix B for photographs.

Tree resources were assessed using the following parameters:

- **Tree #** – Identification number corresponding to TPP-1
- **Species** – Common and botanical names
- **DBH** – Diameter at breast height (cm), measured at 1.4 m above ground
- **Dripline** – Crown radius (m)
- **Condition** – Assessment of trunk integrity, crown structure, and crown vigor, rated as poor (P), fair (F), or good (G)
- **Crown Dieback** – The proportion of the tree's crown that is dead, expressed as a percentage.
- **Comments** – Additional relevant observations

## 4. Vegetation Summary

### 4.1 Tree Resources

A total of 26 trees were identified in the study. Refer to Appendix A for detailed tree inventory information and to TPP-1 for the locations of trees reported in the inventory. Tree resources consist of the following species:

| Common Name        | Botanical Name                |
|--------------------|-------------------------------|
| Blue Spruce        | <i>Picea pungens</i>          |
| Eastern Cottonwood | <i>Populus deltoides</i>      |
| Green Ash          | <i>Fraxinus pennsylvanica</i> |
| Norway Maple       | <i>Acer platanoides</i>       |
| Norway Spruce      | <i>Picea abies</i>            |
| Sugar Maple        | <i>Acer saccharum</i>         |
| White Spruce       | <i>Picea glauca</i>           |

## 5. Proposed Development and Impacts

### 5.1 Description of the Proposed Development

The proposed development consists of constructing additional surface parking areas within the portion of the site currently occupied by the landscaped picnic area. The project also includes a pedestrian walkway designed to provide a safe and direct connection between the new parking area and the existing parking lot. The improvements are intended to increase on-site parking capacity while maintaining functional circulation and ensuring accessible pedestrian movement throughout the Onroute facility.

### 5.2 Removal Recommendations

The removal of seven (7) trees will be required to accommodate the proposed development. Trees 8, 9, and 16-19 directly conflict with the proposed parking lot. Significant encroachment into the minimum tree protection zone (mTPZ) of Tree 2 is required to accommodate proposed re-grading such that the tree would not be expected to tolerate the resulting injury.

Refer to TPP-1 for the location of proposed tree removals.

### 5.3 Preservation Recommendations

The preservation of the remaining trees, including Trees 1, 3-7, 10-15, and 20-26 will be possible with the use of appropriate tree protection measures as indicated on TPP-1. Tree protection measures must be implemented prior to construction to ensure tree resources designated for retention are not impacted by the proposed development. Refer to TPP-1 for the location of required tree preservation fencing, and tree preservation fence details.

In the absence of a Port Hope municipal standard for minimum tree protection zones, the assessment applies the City of Toronto minimum tree protection zones (mTPZs) as an industry-recognized benchmark. These mTPZs are used here to determine whether proposed site works would constitute an injury or removal under Port Hope's Tree Protection Bylaw No. 75/2021 and to inform appropriate mitigation measures. Any encroachment into the mTPZ is considered an injury in this assessment. The mTPZs are outlined in the table below:

| Diameter at Breast Height (DBH) | mTPZ – measured from the outside of the trunk |
|---------------------------------|-----------------------------------------------|
| <10cm                           | 1.2m                                          |
| 10-30cm                         | 1.8m                                          |
| 31-40cm                         | 2.4m                                          |
| 41-50cm                         | 3.0m                                          |
| 51-60cm                         | 3.6m                                          |
| 61-70cm                         | 4.2m                                          |
| 71-80cm                         | 4.8m                                          |
| 81-90cm                         | 5.4m                                          |
| 91-100cm                        | 6.0m                                          |
| >100cm                          | 6cm protection for each 1 cm diameter         |

No trees will require mTPZ encroachment to accommodate the proposed development. All trees marked for retention are expected to tolerate construction well granted vertical tree protection is installed and tree protection zones are fully respected throughout construction.

## 5.4 Compensation

In accordance with Schedule I (Tree Replacement Formula) of the Tree Planting & Protection Policy, any trees greater than 5cm DBH that are removed or injured must be compensated for through the planting of replacement trees. The replacement ratios are as follows:

| DBH     | Number of Replacement Trees |
|---------|-----------------------------|
| 5-15cm  | 1                           |
| 6-22cm  | 1                           |
| 23-37cm | 2                           |
| 38-52cm | 3                           |
| 53-68cm | 4                           |
| 69-82cm | 5                           |

Based on the number of trees removals for this project, a total of 19 replacement trees is required. Replacement trees must have a minimum diameter of 7 cm measured at the 30cm above ground level and be of a species approved in the Tree Planting & Protection Policy. Refer to drawing L01 for proposed planting locations and Appendix A for the compensation calculations. If the subject property cannot accommodate all required plantings, the municipality of Port Hope permits the provision of cash-in-lieu.

## 6. General Tree Preservation Measures

Tree protection barriers and fencing should be installed in the locations shown on TPP-1 and all protection measures must follow the guidelines outlined in the tree preservation fencing detail and section 5.3 of this report. No construction activity, including surface treatments, excavation, or the storage of materials or vehicles is permitted within the designated Tree Protection Zone (TPZ) at any time during or after construction unless explicitly approved.

Any branches extending beyond the TPZ that require pruning must be pruned by a qualified Arborist or other tree professional, and all pruning must adhere to Good Arboricultural Standards. Site visits before, during, and after construction are recommended by a certified consulting arborist (I.S.A.) or a Registered Professional Forester (R.P.F.) to ensure proper use of tree protection measures and to assess any construction-related damage so that appropriate corrective actions can be taken.

All vegetation clearing and tree removals must comply with the Migratory Birds Convention Act and Migratory Birds Regulations, 2022. Removals must occur outside the Migratory Bird Nesting Season (April 1 to August 31). If removals occur during this period, the Owner or Contractor must retain a Qualified Biologist to conduct a pre-clearing nest assessment within 48 hours of work, document any nesting activity, and direct appropriate nesting-season best management practices.

If an active nest is found, work must stop, a species-appropriate buffer must be established, and activities may only resume once the Biologist confirms the nest is inactive or fledged. All mitigation measures recommended by the Biologist, such as timing adjustments, low-disturbance methods, retention of non-conflicting vegetation, protective fencing, and monitoring must be implemented to avoid or minimize impacts.

## 7. Assumption & Limitations

This assessment was conducted applying a reasonable standard of care, skill, and diligence customarily provided within the arboricultural profession. However, it is important to acknowledge that trees are dynamic, living organisms whose internal and external conditions can change rapidly and without warning. The findings herein are based solely on the observations made at the time of inspection and do not account for concealed defects or hazardous conditions that were not visually detectable or were otherwise obscured. Furthermore, no guarantee of future safety, health, or stability is expressed or implied, as this report cannot predict future biological shifts or the effects of extreme weather events such as high winds, ice, or saturated soils. This report is valid only for the stated purpose and site conditions as they existed on the date of inspection; any subsequent site alterations or use of this assessment for alternative purposes without written consent shall render the conclusions invalid.

On behalf of EXP Services Inc.

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Isaac Baik

ISA Certified Arborist ON-2685A

## Appendix A – Tree Inventory Chart

Date: May 20, 2026

Location: ON-401 W, Port Hope ON L1A

Surveyor: DS

| Tree ID #    | Species                       |                    | DBH         | mTPZ | DL  | TI  | CS  | CV  | CDB | Comments                                       | Action   | Compensation |
|--------------|-------------------------------|--------------------|-------------|------|-----|-----|-----|-----|-----|------------------------------------------------|----------|--------------|
|              | Botanical name                | Common name        |             |      |     |     |     |     |     |                                                |          |              |
| 1            | <i>Picea pungens</i>          | Blue Spruce        | 37          | 2.4  | 4   | G   | G   | G   |     |                                                | Preserve |              |
| 2            | <i>Picea pungens</i>          | Blue Spruce        | 45          | 3    | 5   | G   | G   | G   |     |                                                | Remove   | 3            |
| 3            | <i>Picea abies</i>            | Norway Spruce      | 70          | 4.2  | 5   | G   | G   | G   |     |                                                | Preserve |              |
| 4            | <i>Acer platanoides</i>       | Norway Maple       | 24          | 1.8  | 4.5 | G   | G   | G   |     |                                                | Preserve |              |
| 5            | <i>Acer platanoides</i>       | Norway Maple       | 22          | 1.8  | 5   | G   | G   | G-F | 15  |                                                | Preserve |              |
| 6            | <i>Acer platanoides</i>       | Norway Maple       | 28          | 1.8  | 5   | G   | G   | G   |     |                                                | Preserve |              |
| 7            | <i>Acer platanoides</i>       | Norway Maple       | 66          | 4.2  | 7   | G   | F   | G   |     | Codominant at 1.4m                             | Preserve |              |
| 8            | <i>Acer saccharum</i>         | Sugar Maple        | 56          | 3.6  | 8   | G   | G   | G   |     |                                                | Remove   | 4            |
| 9            | <i>Acer saccharum</i>         | Sugar Maple        | 32          | 2.4  | 5   | G   | G   | G   |     |                                                | Remove   | 2            |
| 10           | <i>Acer saccharum</i>         | Sugar Maple        | 40          | 2.4  | 6   | G   | G   | G   |     |                                                | Preserve |              |
| 11           | <i>Populus deltoides</i>      | Eastern Cottonwood | 27,30,31,35 | 4.2  | 9   | G-F | F   | G-F |     | Codominant at base                             | Preserve |              |
| 12           | <i>Populus deltoides</i>      | Eastern Cottonwood | 20,28       | 2.4  | 6   | F   | F   | F   | 15  | Codominant at base                             | Preserve |              |
| 13           | <i>Populus deltoides</i>      | Eastern Cottonwood | 31          | 2.4  | 4   | F   | F-P | F-P | 40  | Asymmetrical crown (M), poor form (H)          | Preserve |              |
| 14           | <i>Acer saccharum</i>         | Sugar Maple        | 40          | 2.4  | 6   | G   | G   | G   |     |                                                | Preserve |              |
| 15           | <i>Picea pungens</i>          | Blue Spruce        | ~51         | 3.6  | 5   | G   | G   | F   | 20  |                                                | Preserve |              |
| 16           | <i>Acer platanoides</i>       | Norway Maple       | 40          | 2.4  | 6.5 | G   | G   | G   |     |                                                | Remove   | 3            |
| 17           | <i>Acer saccharum</i>         | Sugar Maple        | 44          | 3    | 6.5 | G   | G   | G   |     |                                                | Remove   | 3            |
| 18           | <i>Picea pungens</i>          | Blue Spruce        | 43          | 3    | 5   | G   | G   | G   |     |                                                | Remove   | 3            |
| 19           | <i>Fraxinus pennsylvanica</i> | Green Ash          | 46          | 3    | 7   | F   | F   | P   | 90  | Emerald ash borer (H), epicormic branching (H) | Remove   | 0            |
| 20           | <i>Acer platanoides</i>       | Norway Maple       | 21          | 1.8  | 6.5 | G   | G   | G   |     |                                                | Remove   | 1            |
| 21           | <i>Acer platanoides</i>       | Norway Maple       | 44          | 3    | 6.5 | G   | G   | G   |     |                                                | Preserve |              |
| 22           | <i>Picea glauca</i>           | White Spruce       | 56          | 3.6  | 5   | G   | G   | G   |     |                                                | Preserve |              |
| 23           | <i>Acer platanoides</i>       | Norway Maple       | 10          | 1.8  | 3   | G   | G   | G   |     |                                                | Preserve |              |
| 24           | <i>Acer platanoides</i>       | Norway Maple       | 4           | 1.2  | 3   | G   | G   | G   |     |                                                | Preserve |              |
| 25           | <i>Acer platanoides</i>       | Norway Maple       | 20          | 1.8  | 4   | G   | G   | G   |     |                                                | Preserve |              |
| 26           | <i>Picea abies</i>            | Norway Spruce      | 60          | 3.6  | 6   | G   | G   | G   |     |                                                | Preserve |              |
| <b>Total</b> |                               |                    |             |      |     |     |     |     |     |                                                |          | <b>19</b>    |

| Legend                                   |                              |         |
|------------------------------------------|------------------------------|---------|
| DBH                                      | Diameter at Breast Height    | (cm)    |
| mTPZ                                     | minimum Tree Protection Zone | (m)     |
| DL                                       | Dripline Radius              | (m)     |
| TI                                       | Trunk Integrity              | (G,F,P) |
| CS                                       | Crown Structure              | (G,F,P) |
| CV                                       | Crown Vigor                  | (G,F,P) |
| CDB                                      | Crown Dieback                | (%)     |
| (L) = light; (M) = moderate; (H) = heavy |                              |         |

## Appendix B – Photographs



Image 1. Tree 1



Image 2. Tree 2



Image 3. Tree 3



Image 4. Tree 4



Image 5. Tree 5



Image 6. Tree 6



Image 7. Tree 7

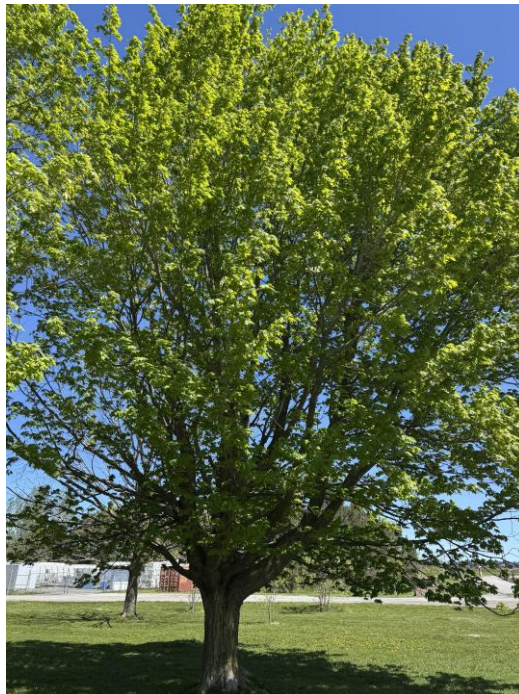


Image 8. Tree 8



Image 9. Tree 9



Image 10. Tree 10



Image 11. Tree 11



Image 12. Tree 12



Image 13. Tree 13



Image 14. Tree 14



Image 15. Tree 15



Image 16. Tree 16



Image 17. Tree 17



Image 18. Tree 18



Image 19. Tree 19



Image 20. Tree 20



Image 21. Tree 21



Image 22. Tree 22