Dougan Ecology

Arborist Report and Tree Preservation Plan

St David St N - South Lands

Fergus, ON

PREPARED FOR: Polocorp Inc.

DATE: February 2025

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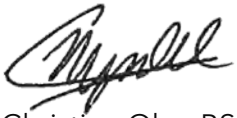

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1. INTRODUCTION

1.1. Background and Site Context

Dougan Ecology (Dougan) was retained to complete a tree survey and arborist assessment for 968 St. David's St. N (Highway 6), Fergus, ON in support of a mixed-use development proposal. The subject lands are zoned agricultural, and are currently in use by a trucking company with several buildings present on the site including barns and warehouses (Figure 1). The proposed 19.39 ha residential development generally consists of 62-88 single-detached lots, 80–118 on-street townhouse units, 71-102 medium density residential units, 8-14 mixed use residential units, an open space block, internal roadways, and a stormwater management block as well as associated parking, streets, and servicing.

This Arborist Report and appended Tree Preservation Plan (TPP) has been prepared following an inventory of all trees 10 cm DBH (diameter at breast height) or greater, in accordance with the County of Wellington requirements under the Township of Centre Wellington Public Tree By-Law 2022-57. This report provides our methodology, findings, and recommendations.

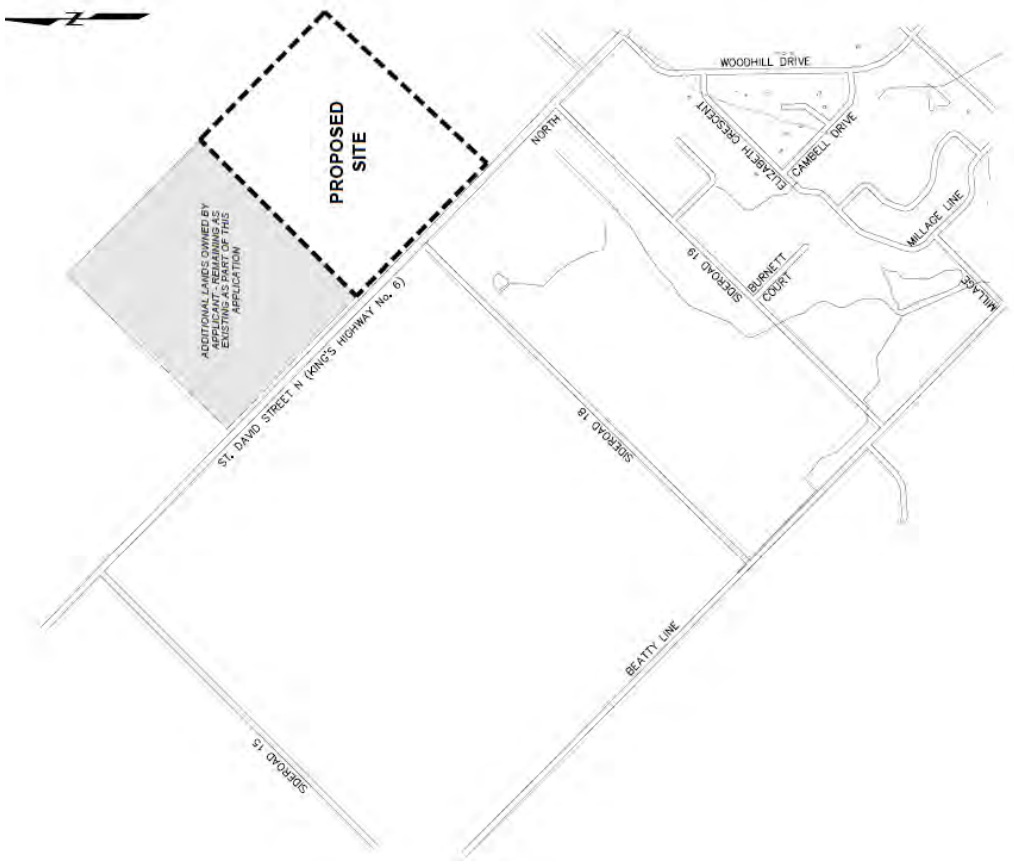

Figure 1: Site Location (GEI, 2025)

1.2. Study Purpose and Scope

The study purpose and scope of this report is based on requirements outlined in the Township of Centre Wellington Public Tree By-Law 2022-57 (2022) and the County of Wellington Conservation and Sustainable Use of Woodlands By-Law 5115-09 (2009), as summarized in Section 1.3.

The following Tree Management Plan (TMP) includes a Tree Preservation Plan, an Arborist Report with a detailed inventory of all trees situated within the property boundary that are 10cm DBH or greater.

1.3. Relevant Policies and Legislation

1.3.1. Township of Centre Wellington Public Tree By-Law 2022-57

The Township's bylaw 2022-57 authorizes and regulates the planting, care, maintenance, and removal of trees on Township property. This bylaw stipulates that no person shall injure, destroy, or plant a tree on Township property without a permit.

A permit may be issued up on submission of an application including the following:

a) *a complete application in the form provided by the* ***Township;***

b) *when applicable, the Business Name Registration and/or Articles of Incorporation obtained from the applicable provincial or federal Ministry;*

c) *a landscape plan;*

d) *when applicable, an* ***Arborist Report*** *and* ***Tree Preservation and Enhancement Plan*** *that identifies the* ***tree protection zone;***

e) *a certificate of insurance in a form satisfactory to the* ***Township*** *naming the* ***Township*** *as an additional insured with a coverage limit not less than two (2) million dollars in Commercial General Liability;*

f) *payment of* ***compensation value*** *for each* ***tree*** *to be removed in the form of a money order, certified cheque or any other method of payment approved by the* ***Township,*** *or submission of compensation planting plan to the satisfaction of the* ***Township;***

g) *securities in the form of a Letter of Credit or in any alternate form of financial security as approved by the* ***Township*** *in the amount of the* ***compensation value*** *of the* ***tree(s),*** *removal and replacement costs;*

h) *any other documents as may be required by the* ***Township*** *to the satisfaction of the* ***Township;***

i) *the required application fee, administrative, approval and inspection fees as provided for in the Township's Fees and Charges By-law.*

Compensation for tree removals is defined as **"**the ratio of compensation trees identified in **Public Forest Policy** multiplied by the tree compensation rate identified in the **Township's** Fees and Charges By-law, or the amenity value of the tree calculated in accordance with the Guide for Plant Appraisal, 10th Edition as published by the International Society of Arboriculture, as amended or replaced, and as approved by the **Director".**

It should be noted that the Township does not have a **Private Tree Bylaw** in effect.

Site Implications:

Publicly owned trees are protected from damage or destruction under By-Law 2022-57. There is one (1) tree located within the right-of-way that is proposed to be removed (Tree #1009 – Norway Maple). A permit under this by-law is required prior to impacting this tree, or any other publicly owned tree. As part of the permitting process, compensation value for trees anticipated to be removed will need to be calculated and confirmed with the Township. At this time, it is proposed to be replanted at a 1:1 ratio.

1.3.2. County of Wellington Conservation and Suitable Use of Woodlands By-Law (5115-09)

By-law 5115-09, established by the Corporation of the County of Wellington, aims to safeguard trees within woodlands to preserve the health of natural environments and promote good forestry practices. To be subject to this by-law, a woodland must cover at least one hectare and meet the following tree density criteria:

- A minimum of 1,000 trees per hectare of any size.
- At least 750 trees per hectare with a diameter over five centimeters.
- A minimum of 500 trees per hectare with a diameter over 12 centimeters.
- At least 250 trees per hectare with a diameter over 20 centimeters.

These density requirements set the scope for the by-law's protection, ensuring that significant tree populations are regulated to maintain the integrity of woodland ecosystems.

A County permit is required prior to the cutting or destruction of trees in a forested area greater than 1 hectare/2.47 acres (woodlands). Doing so without a permit is a chargeable Provincial Offence. The county offers three types of permits:

- **Good Forestry Practices Permit:** Requires a silvicultural prescription by a Registered Professional Forester, aiming to improve timber quality and growing conditions while minimizing negative impacts on biodiversity, wildlife, and recreation. It also allows for shorter rotation periods between harvests, benefiting landowners.
- **Circumference Limit Permit:** Regulates tree harvesting based on minimum size requirements, measured in diameter or circumference. It can lead to high grading, where only the largest trees are cut, potentially reducing woodland quality and

increasing rotation periods. The by-law includes provisions to mitigate negative impacts.

- **Clearing Permit:** Allows for the complete removal of woodland areas, typically for conversion to other land uses. Minor clearings for specific purposes like agricultural field adjustments or creating amenity areas are sometimes permitted, but large-scale clearings of good forest land are generally not supported.

The County may issue a permit subject to those conditions that are deemed necessary, including but not limited to:

a. the manner and timing in which the injuring or destruction of trees is to be carried out;
b. the qualifications of persons authorized to injure or destroy trees;
c. the species, size, number and location of replacement trees to be planted; and
d. measures to be implemented to mitigate the direct and indirect effects of the injuring or destruction of trees on the natural environment.

Site Implications:

The development proposal does not involve cutting or destroying trees in a forested area greater than 1 ha. Therefore, the County's Woodland Bylaw does not apply.

1.3.3. Township of Centre Wellington Official Plan (2005)

The Township's Landscape Design provisions (policy C.15.4 of the Official Plan) describe the requirements for tree preservation within the Township. Under this policy, the Township requires the submission of a tree inventory and saving plan for all applications, with priority being given to trees and other vegetation most suited to adoption of post-construction conditions. The policy notes that where retention of significant treed areas, individual trees or naturalized areas has been determined by the Township not to be feasible, in accordance with its policies and guidelines, the loss of such features shall be offset by requiring their replacement with an appropriate quantity and quality of vegetation on the site or elsewhere in the Township.

Site Implications:

The proposed removal of individual trees require replacement with an appropriate quantity and quality of vegetation on site or elsewhere in the Township. Approval of an appropriate tree replacement plan is required prior to impacting trees.

2. METHODS

2.1. Tree Inventory and Arborist Assessment

An arborist assessment was completed by an International Society of Arboriculture (ISA) Certified Arborist on **October 3 and 12, 2023** within the subject property. All observations were made from the ground, i.e. no tree climbing or aerial lift inspection methods were used. All trees 10 cm DBH

(diameter at breast height) and over were tagged and documented using the Survey 123 ArcGIS application, and geolocated using the Trimble Catalyst DA2 GNSS receiver. The following data was collected:

- Unique tree tag number;
- Species (common name, botanical name);
- DBH recorded at 1.4m in height (in cm);
- Crown reserve i.e. canopy diameter (in m);
- Tree height (in m);
- Structure condition (high, medium, low);
- Biological health (high, medium, low);
- Preservation priority (high, medium low);
- Any additional comments.

Digital data was managed in ArcGIS. Results of the tree inventory and assessment were overlaid with proposed site plan information (Map 2 – Tree Protection Plan) to assess grading and/or construction impacts to determine which trees can be retained and which should be removed or may be injured (with protective measures in place).

Mitigation recommendations are based primarily on two ISA resources; Managing Trees During Construction (Fite and Smiley, 2023) and Trees and Development: A Technical Guide to Preservation of Trees During Land Development (Matheny and Clarke 1998).

3. FINDINGS

3.1. Tree Inventory and Arborist Assessment

A total of 158 living trees and 1 dead tree of 10 cm DBH or larger were tagged and assessed within the anticipated disturbance limit and overlapping natural heritage features. This included hedgerows and woodland edges. The locations of these trees are shown on Map 1 – Tree Inventory Plan, and the data collected for each tree are provided in Appendix A – Tree Data Table.

Figure 2 below showcases the abundance and species distribution of all trees surveyed. None of the species found on site were determined to be rare or uncommon. A total of one (1) tree surveyed was identified as candidate bat roosting trees due to size (≥25cm DBH) and presence of bat roosting habitat attributes such as loose/peeling bark, cavities, cracks, crevices, and/or knot holes. Additional details on bat habitat present can be found in the EIS prepared for the South Property (Dougan, 2025).

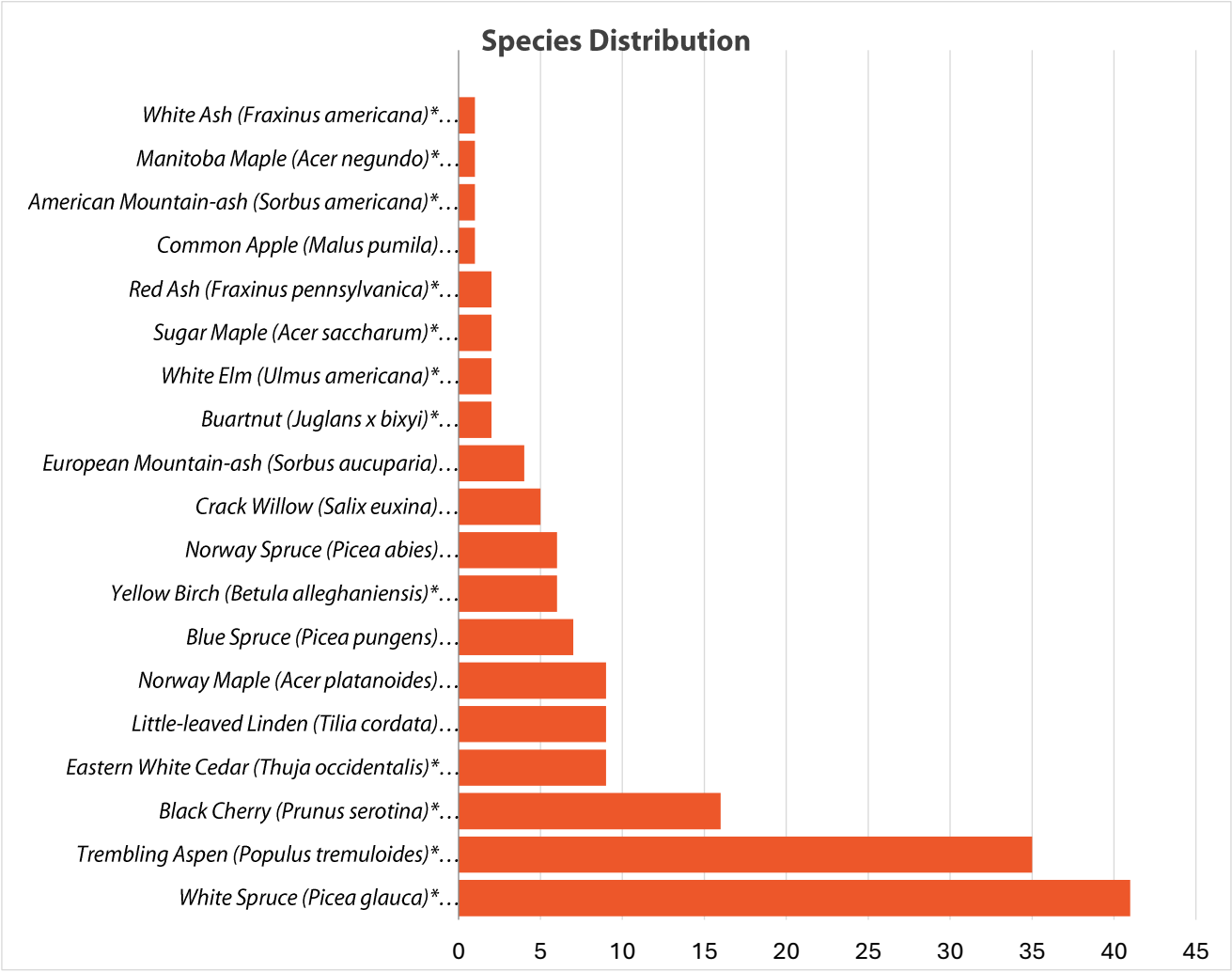

Figure 2: Distribution of Inventoried Species

Of the 19 species observed, the most frequently encountered species were White Spruce (41). Trembling Aspen (35) and Black Cherry (16).

In general, the surveyed area consisted of primarily native species (Figure 3) with 118 trees comprised of native species, and 41 trees comprised of non-native species. Included in the list of native species is Manitoba Maple. While this tree is technically naturalized within Ontario, it is considered invasive in some areas of Ontario including Southern Ontario by the Ontario Invasive Plant Council (OIPC) and The Natural History Information Center (NHIC). The species presents with certain invasive qualities such as high annual seed production and tolerance to a wide range of growing conditions, allowing it to outcompete higher quality native species.

Figure 3 provides a summary of the number of native and non-native trees identified during the tree inventory.

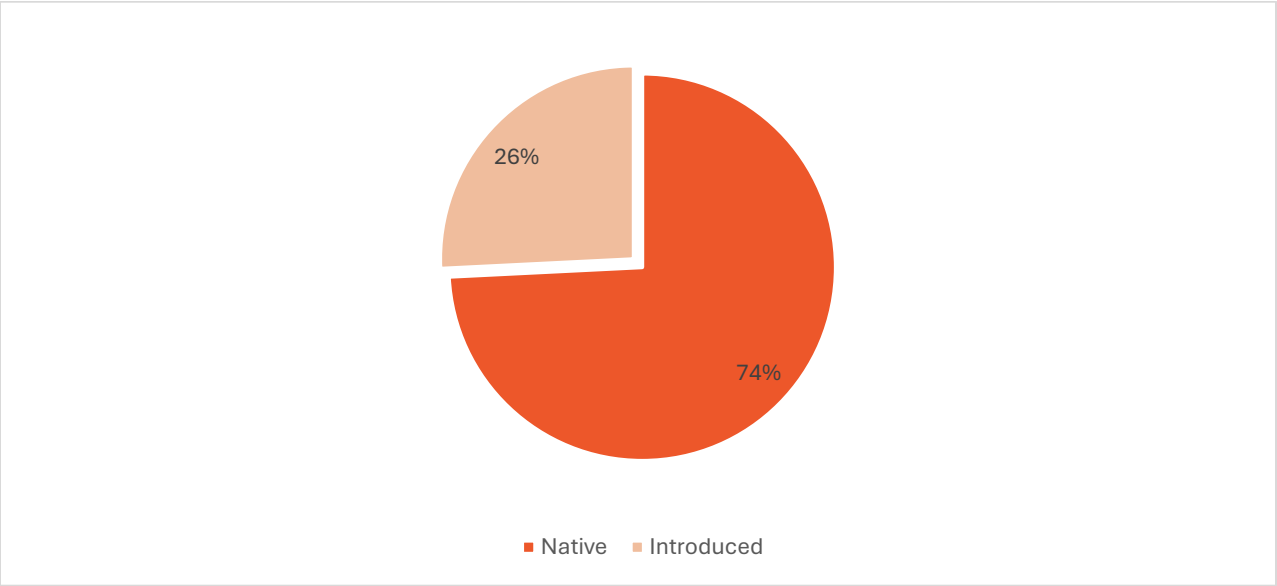

Figure 3: Comparison of Native and Non-Native Trees

Native species identified include the following 12 species:

- White Spruce (*Picea glauca*)
- White Ash (*Fraxinus americana*)
- Red Ash (*Fraxinus pennsylvanica*)
- Manitoba Maple (*Acer negundo*)
- Trembling Aspen (*Populus tremuloides*)
- Yellow Birch (*Betlua alleghaniensis*)
- Sugar Maple (*Acer saccharum*)
- Eastern White Cedar (*Thuja occidentalis*)
- White Elm (*Ulmus americana*)
- Black Cherry (*Prunus serotina*)
- American Mountain Ash (*Sorbus americana*)
- Eastern Hop-hornbeam (*Ostrya virginiana*)

Non-native (introduced) species identified include the following 7 species:

- Common Apple (*Malus pumila*)
- Crack Willow (*Salix euxina*)
- Little-leaved Linden (*Tilia cordata*)
- Norway Maple (*Acer platanoides*)
- Norway Spruce (*Picea abies*)
- Blue Spruce (*Picea pungens*)
- European Mountain Ash (*Sorbus aucuparia*)

Tree sizes ranged from 10 cm to 91 cm DBH. Most trees (53%) were in the range of 20-49 cm DBH (Table 1). The largest living trees (tree #1012 and #1018) were a Norway Spruce (91 cm) and a Sugar Maple (88 cm).

Table 1: DBH Distribution of Inventoried Trees

DBH	No. of Trees
≥ 50 cm	23
20 - 49 cm	102
≥ 10 cm - 19 cm	34
Total	**159**

The majority of the trees were assessed as having medium structural condition and high biological health (Table 2). High ranking is defined by trees with no structural defects, no disease symptoms and/or high vigor.

Table 2: Summary of Structural Condition, Biological Health, and Preservation Priority of Inventoried Trees

Arborist's Ranking	Number of Trees		
	Structural Condition	**Biological Health**	**Preservation Priority**
High	63	92	72
Medium	74	56	75
Low	22	11	12
Total	**159**	**159**	**159**

Map 1 provides a spatial representation of trees based on their biological health ranking.

4. IMPACT ASSESSMENT

4.1. Description of Proposed Work

The current site plan was prepared by Polocorp (December 2024) and is provided in Appendix C. The anticipated limit of disturbance (grading) has been applied to Map 2: Tree Preservation Plan to determine tree action (Preserve, Injure, Remove) based on the proximity of disturbance to treed driplines/canopy, as summarized in section 2.1. It should be noted that the impact assessment of trees may change through detailed design, as the limit of disturbance is further refined.

4.2. Impacts to Trees and Compensation Requirements

Of the 159 trees considered in the impact assessment (i.e. all tagged and geolocated trees ≥10 cm DBH; not including saplings and seedlings), a total of 56 trees will be preserved, 87 will require

removal, and 9 are anticipated to be injured with protective measures in place (Tree Protection Hoarding) (ref. Map 2).

Tree action was determined by overlaying the limit of work with the location of trees established during the tree inventory:

- Trees with disturbance greater than 30% within their driplines are generally considered too heavily impacted to be retained and were therefore designated as "**remove**".
- Trees with disturbance within a portion of the dripline, but less than 30% are considered partly impacted and designated as "**injure**".
- Trees that are not anticipated to have work occur within their driplines are designated "**preserve**".

Table 3 summarizes the number of trees to be preserved, injured, or removed, along with compensation requirements.

Table 3: Summary of Impacted Trees and Compensation Requirements (ref. Appendix A)

Tree Action	Tree Count*
Preserve	56
Injure	9
Remove	87
Tree action to be addressed in the North Lands submission	7
Total	**159**

4.3. Tree Ownership

Of the 159 inventoried trees, 132 are owned by the proponent, 25 are on neighbouring lands, and 2 are publicly owned within the right-of-way. A summary of tree action by ownership is provided below.

Table 4. Summary of tree action by ownership.

Ownership	Preserve	Injure	Remove	To be addressed in North Lands submission	Total
Applicant	42	2	83	5	**132**
Neighbour	14	7	3	1	**25**
Township (within right-of-way)	0	0	1	1	**2**

It should be noted that **written permission from the neighbouring landowner** is required prior to impacting neighbouring/boundary trees. Public trees within the **right-of-way** are subject to the Township of Centre Wellington's **Public Tree Bylaw** (ref. section 1.3.1).

5. TREE PROTECTION AND MITIGATION RECOMMENDATIONS

Specific recommendations are provided in Table 5 for mitigation impacts to trees that are caused by various construction activities. The following recommendations are intended to mitigate the injuries anticipated to trees based on the site plan prepared by Polocorp Inc. (Appendix C).

5.1. Legislative Compliance

5.1.1. Endangered Species Act, 2007

One (1) tree (Tree 1490) exhibits suitable attributes for Species at Risk (SAR) bat maternity roost habitat (i.e. large cavities, cracks, loose bark). Four (4) species of Endangered bats reside in Ontario and may utilize these trees during the maternity roosting season: Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), Tricolored Bat (*Perimyotis subflavus*), and Eastern Small Footed Myotis (*Myotis leibii*). These species receive protection under the provincial Endangered Species Act (ESA), 2007. In Southern Ontario, the maternity roosting season is from April 1 to September 30. Tree removals should not occur within this critical roosting period.

While it's dripline extends into the South Lands property, impacts will be associated with the North Lands development (to be submitted under separate cover). Please refer to the St David St N North Lands Arborist Report and TPP (Dougan, 2025) for details on tree action (preserve. Injure, remove) .

5.1.2. Migratory Bird Convention Act, 1994

The following recommendations apply to tree removal as it relates to compliance with the Migratory Birds Convention Act (1994):

a. To ensure compliance with the Migratory Bird Convention Act (MBCA 1994), any vegetation removal on the site should be done outside of the breeding bird window, which for this site is approximately **April 9 - August 15**. If any vegetation removal is to occur within this window, a qualified avian ecologist should first check the vegetation to be removed to ensure that there are no migratory birds covered by the Act nesting within it.
b. If any birds are found nesting, then, in consultation with Environment Canada, a suitable buffer should be established around the nest, and no activities will be permitted with this buffer until the birds have left.
c. If construction occurs during the breeding bird window, nest sweeps of the site should be conducted prior to construction to ensure that unusually early or late nesting is not taking place, or that dependent young, even though fully fledged, are not in the area and unable to disperse. If breeding birds are found, construction must be delayed until all young have fledged.

5.1.3. Local Policy

The County's Woodland Bylaw 5115-09 does not apply to this site, as the development proposal does not involve cutting or destroying trees in a forested area greater than 1 ha. No permit is needed under By-Law 5115-09.

The Township's By-Law 2022-57 protects publicly owned trees from damage or destruction. If it is determined through detailed design that publicly owned trees may be impacted by the proposed work, a permit under this by-law is required prior to impacting the tree(s). As part of the permitting process, compensation value for trees anticipated to be removed will need to be calculated and confirmed with the Township.

The Township's Official Plan (2005) policy C.15.4 requires replacement of tree removals with an appropriate quantity and quality of vegetation on site or elsewhere in the Township. Approval of an appropriate tree replacement plan is required and should be confirmed during the permitting process, prior to impacting trees.

5.2. Tree Protection and Mitigation

5.2.1. Tree Protection Zones

Before beginning construction, Tree Protection Zones (TPZ) should be established and Tree Protection Barriers (TPB) installed around each of the trees to be preserved at minimum of 1m outside of the tree drip line to delineate the required Tree Preservation Zone (TPZ) and as shown on the Tree Preservation Plan (Map 2). Appropriate signage should be applied to the Tree Protection Barriers, per Dougan TPZ standard detail (Appendix B). In addition, the minimum TPZ for all trees where the standard TPZ cannot be provided is to be shown as a distinct line type from the dripline/canopy limit.

A description of the extent of anticipated injury type and extent and an assessment of impact to long-term health should be clearly documented for each tree where the Minimum TPZ is provided, as provided by a qualified expert. Minimum Tree Protection Zone distances are outlined in Appendix B, which outlines the Dougan standard for TPZ detail, used when the municipalities of the subject lands do not have their own TPZ standard detail. The Dougan TPZ standard detail have been applied in developing the Tree Protection Fencing shown on Map 2, as follows:

Tree Protection Fencing (TPF) should be installed pre-construction to mitigate impacts to trees marked as "Injure" or "Preserve" (Map 2) in accordance with the detail provided in Appendix B. TPF should be installed no less than 1m from tree dripline where possible, or at the outer limit of development.

5.2.2. General Best Management Practices

General best management practices to mitigate pre-construction and construction impacts to trees marked as "preserve" and "injure" are outlined in Table 5 below.

Table 5: Construction Activities, Impacts to Trees, and Recommended Mitigation Measures to Prevent or Minimize Damage to Trees (based on Matheny and Clarke, 1998; ANSI, 3000; OPSS, 2019)

Construction Activity	Impacts to Tree	Recommended Mitigation/Treatments to Prevent Damage
Protecting preserved or injured trees pre-construction	Root damage or loss, compromised structural integrity and long-term health	• Preserved and injured trees must be surrounded by a continuous barrier (TPF), which shall be installed prior to site clearing, grading and demolition, and maintained through construction and landscaping. Location of the TPF should be determined or verified prior to installation by a certified arborist. • Install mulch to a depth of 4 inches within the Tree Protection Zone, ensuring mulch does not touch the trunk.
Root and/or branch pruning of preserved or injured trees pre-construction	Root damage or loss, compromised structural integrity and long-term health	• Where excavation is proposed within the dripline and/or tree protection zones, root pruning may be required. If significant roots must be cut, the following is to be adhered to: o Provide deep watering (to a depth of 30 inches) prior to excavation. o Stake the edge of excavation. o Cut with sterilized root pruning equipment 15-30 cm outside the staked line towards the tree. o If root pruning equipment cannot be used, dig a trench along the staked line. Equipment such as a backhoe can be used until roots larger than 1 inch in diameter are encountered. Then, complete excavation with a shovel. o When a root is encountered, expose it by removing soil by hand, and cut root cleanly with a sterilized saw at the outside edge of the trench (towards the tree). Cut to a lateral root when possible. Do not paint the cut root end. If excavation is for installation of underground utilities, leave the root intact and thread the lines underneath if possible. o Replace soil in the trench. o Place tree protection fencing at the edge of excavation. o All grading equipment to operate outside the protection fence area.

Construction Activity	Impacts to Tree	Recommended Mitigation/Treatments to Prevent Damage
		• Every effort shall be made to protect exposed roots from desiccation by covering said roots with moisture retaining material such as wet burlap, or moist topsoil, and a covering such as a tarpaulin. The covered area should be monitored and kept moist to avoid root desiccation. • All pruning should be performed by qualified arborists and in accordance with the International Society of Arboriculture's Pruning Best Management Practices (2019). • Should any overhead branches obstruct construction activity, they shall be tied back to provide clearance. If this is not possible, branches shall be pruned by a certified arborist following ISA best management practices, ANSI 300 Pruning Standard and OPSS (2019) 801.07.03: o Ensure branches are cut at a forty-five-degree angle just above the node and/or branch collar with a sharp sterile saw. o Branches 25 mm or greater in diameter that are broken shall be cut back cleanly on the tree side of the break or to within 10 mm of their base, if a substantial portion of the branch is damaged.
Clearing and grubbing (around trees to be retained)	Root damage or loss, compromised structural integrity and long-term health	• Install Tree Protection Barriers (Appendix B; Map 2). • Prohibit stripping existing topsoil within TPZ around trees to be retained. • Woody vegetation to be removed adjacent to preserved trees should be cut at ground level and not pulled out by equipment. Arborist may be needed for adjacent tree removal if crowns are intertwined. • If roots of trees to be retained are cut or torn during the clearing and grubbing, they shall be pruned by an ISA Certified Arborist.

Construction Activity	Impacts to Tree	Recommended Mitigation/Treatments to Prevent Damage
Trenching for infiltration gallery	Root damage or loss, compromised structural integrity and long-term health	• Trenching should be avoided within the Tree Protection Zone of trees to be preserved. Tunneling below the root zone is preferred to a minimum depth of 2m below the existing grade. Where this is not feasible, dig the trench by hand and either prune roots or bridge roots that are greater than 2.5cm in diameter. Soil around roots should be excavated using an air excavation tool or similar method. Trenches should be backfilled around roots with loam or sandy loam for optimal growing conditions, with minimal compaction to allow for root regrowth. It is recommended that hand-dug or air excavated trenches be completed or supervised by an ISA Certified Arborist. The trees affected should only be preserved if this mitigation recommendation is implemented.
Creating clearance for building, traffic, and movement of construction equipment	Damage to crown	• Install Tree Protection Fencing around the TPZ. • Divert construction traffic away from trees. • Prior to construction, prune branches of trees to a minimum height required for construction. All pruning shall be completed by a Certified Arborist.
Soil compaction/Filling (around trees to be retained)	Unfavourable conditions for root growth; chronic stress from reduced root systems	• Install Tree Protection Fencing to keep traffic and storage out of root area. Where access within the TPZ is required, adjust the TPZ and protect soils with at least 15cm of mulch (Appendix B). • Divert construction traffic and storage areas away from trees. • Minimize soil compaction within the Tree Protection Zone.
Spills, Waste disposal (e.g. paint, oil, fuel)	Unfavourable conditions for root growth; chronic stress from reduced root systems	• Install Tree Protection Fencing to exclude dumping. • Clean up accidental spills immediately.
Increased exposure due to removal of adjacent trees and pruning.	Increased exposure	• Retain or replace understory vegetation with suitable native species or mulch. • Avoid severe pruning where previously shaded bark would be exposed to sun.

Construction Activity	Impacts to Tree	Recommended Mitigation/Treatments to Prevent Damage
Construction protective measures	To minimize impact to trees	• If injury should occur to any tree during construction, it should be evaluated as soon as possible (no more than 6 hours) by a certified arborist so that appropriate treatments can be applied. • Bark that is damaged shall be neatly trimmed back to uninjured bark without causing further injury to the tree. • Any grading, construction, demolition, or other work that is expected to encounter tree roots must be monitored by the consulting arborist. • Any roots damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.

5.3. Replacement Trees

The Township of Centre Wellington Official Plan policy C.15.4 requires that the loss of significant treed areas, individual trees or naturalized areas be offset by requiring their replacement with an appropriate quantity and quality of vegetation on the site or elsewhere in the Township. The Township supports the landscape design that encourages the maintenance of naturalized space, replacement of lost vegetation, use of native species for revegetation, and enhancement of ecological stability (Township of Centre Wellington, 2005).

Trees will be replaced at a **minimum 1:1 ratio**, will be comprised entirely of **native species** appropriate to the site conditions, and will be sited within the **buffer enhancement area**. A total of 326 replacement trees are proposed in this area to address tree removals on the North and South Lands. Please refer to the South Lands EIS and Landscape Plans (Dougan 2025) for details.

6. CONCLUSION

This arborist report and Tree Preservation Plan were prepared in support of a mixed-use development proposal at 968 St. David's St. N (Highway 6), Fergus. A total of 159 trees of 10 cm DBH or larger were inventoried and assessed within the subject lands including trees within hedgerows, cultural communities, and woodland edges.

To facilitate the proposed development, a total of **87 trees are proposed to be removed and 9 additional trees will be injured.** Tree preservation and mitigation recommendations for trees marked as preserve or injure are provided in section 5, consistent with the Tree Preservation Plan (Map 2). Impacts to trees (including tree action – preserve, injure or remove) will be further refined and confirmed through the detailed design/Site Plan Application phase.

If publicly owned trees are proposed for removal, the proponent must acquire a permit from the Township's Forestry Department, under By-Law 2022-57. Trees proposed for removal are generally recommended to be replaced on site at a ratio of 1:1, consisting of native species appropriate to the planting location. Tree replacement requirements are to be confirmed in consultation with the Township through the permitting process.

This Arborist Report and Tree Management Plan was prepared in accordance with the Endangered Species Act (2007), Migratory Birds Convention Act (1994), County of Wellington Conservation and Sustainable Use of Woodlands By-Law 5115-09 (2009), Township of Centre Wellington Public Tree By-Law 2022-57 (2022), and the Township of Centre Wellington's Official Plan Section C.15.4 (2005). If the recommendations herein are followed, the project will be conducted in compliance with provincial and local regulations.

7. REFERENCES

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PROJECT: DA23-034-02

CLIENT: Polocorp

DATE: 27, February 2025

DRAWN BY: J. Lacsamana / J. Sauder

Map 1:
Tree Inventory

St. David Street N - South Land EIS

Site Boundary (Polocorp, 2025)

Tree Inventory (Dougan, 2023)

Preservation Priority

- High
- Medium
- Low

0 20 40 80

Metres

1:2,100

N

NAD 1983 UTM Zone 17N

Orthoimagery Source: Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

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Dougan Ecology

PROJECT: DA23-034-02

CLIENT: Polocorp

DATE: 28, February 2025

DRAWN BY: J. Lacsamana

Map 2:
Tree Preservation Plan

St. David Street N - South Land EIS

- Site Boundary (Polocorp, 2025)
- Limit of Disturbance (Polocorp, 2025)
- Site Plan (Polocorp, 2025)
- Tree Protection Fencing

Tree Action

- Injure
- Preserve
- Remove
- Tree action addressed in North Lands EIS
- Tree action subject to change pending North Lands development [1]

Notes:
1) See Tree Preservation Plan for North Lands submitted under separate cover (Dougan, 2025)

0 20 40 80
Metres
1:2,200

NAD 1983 UTM Zone 17N

Orthoimagery Source: Maxar, Microsoft, Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Dougan Ecology

Page 1

Page 2

BLOCK 11 ST TOWNS 11-17 Units
STREET F
BLOCK 12 ST TOWNS 9-13 Units
BLOCK 13 ST TOWNS 9-13 Units
BLOCK 10 SINGLES 3-5 Units
BLOCK 9 SINGLES 3-5 Units
BLK 24 TRAIL 0.417 ha / 1.03 ac
STREET A
BLOCK 14 ST TOWNS 9-13 Units
BLOCK 7 SINGLES 5-7 Units
STREET E
BLOCK 15 ST TOWNS 9-14 Units
STREET C
BLOCK 6 SINGLES 8-11 Units
BLOCK 5 SINGLES 8-11 Units
BLOCK 4 SINGLES 6-8 Units
BLOCK 3 SINGLES 5-7 Units
BLOCK 8 SINGLES 11-15 Units
BLOCK 25 PARK 0.806 ha / 1.99 ac
BLOCK 16 ST TOWNS 11-16 Units
BLOCK 17 SINGLES 11-16 Units
STREET B
BLOCK 18 ST TOWNS 11-16 Units
BLOCK 2 SINGLES 6-9 Units
STREET A
BLOCK 1 SINGLES 7-10 Units
BLOCK 23 SWM FACILITY 2.412 ha / 5.69 ac
BLOCK 21 MIXED USE 0.338 ha / 0.84 ac 8-14 Units
STREET D
BLOCK 20 MED DENSITY 1.13 ha / 3.80 ac 50-67 Units
BLOCK 19 MED DENSITY 0.484 ha / 1.20 ac 21-35 Units
BLOCK 22 EXISTING HOUSE 0.330 ha / 0.8[illegible] 0-1 Unit
Gibbons Dr
Gibbons Dr Park
Highway 6
St David St N

PROJECT: DA23-034-02

CLIENT: Polocorp

DATE: 28, February 2025

DRAWN BY: J. Lacsamana

Map 2.1:
Tree Preservation Plan

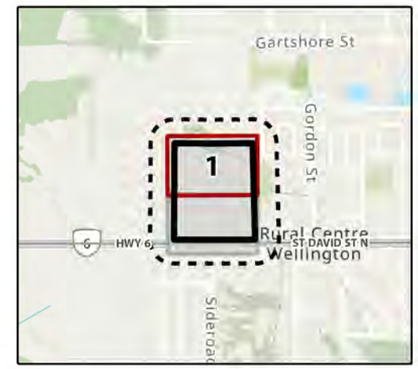
St. David Street N EIS

- Site Boundary (Polocorp, 2025)
- Limit of Disturbance (Polocorp, 2025)
- Site Plan (Polocorp, 2025)
- Tree Protection Fencing

Tree Action

- Preserve
- Injure
- Remove
- Tree action addressed in North Lands EIS
- Tree action subject to change pending North Lands development [1]

Notes:
1) See Tree Preservation Plan for North Lands submitted under separate cover (Dougan, 2025)



0 12.5 25 50
Metres
1:1,350

NAD 1983 UTM Zone 17N

Orthoimagery Source: Maxar, Microsoft, Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Dougan Ecology

PROJECT: DA23-034-02

CLIENT: Polocorp

DATE: 28, February 2025

DRAWN BY: J. Lacsamana

Map 2.2:
Tree Preservation Plan

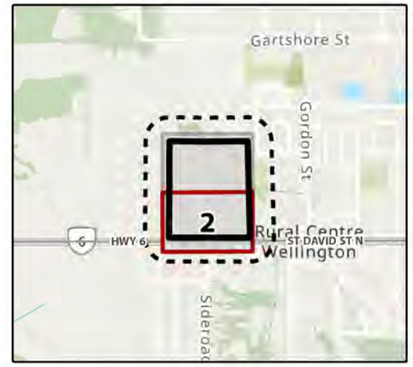
St. David Street N EIS

- Site Boundary (Polocorp, 2025)
- Limit of Disturbance (Polocorp, 2025)
- Site Plan (Polocorp, 2025)
- Tree Protection Fencing

Tree Action

- Preserve
- Injure
- Remove
- Tree action addressed in North Lands EIS
- Tree action subject to change pending North Lands development [1]

Notes:
1) See Tree Preservation Plan for North Lands submitted under separate cover (Dougan, 2025)



0 12.5 25 50
Metres
1:1,350

NAD 1983 UTM Zone 17N

Orthoimagery Source: Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

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Dougan Ecology

Appendix A: Tree Data Table

Appendix A. Tree Data Table

South Lands - St. David's St., Fergus ON

Tree Tag #	Tree Status	Common Name	Scientific Name	DBH1 [1] (cm)	DBH2 (cm)	DBH3 (cm)	DBH4 (cm)	DBH5 (cm)	DBH6 (cm)	DBH Total (cm)	Crown Reserve [2] (m)	Height [3] (m)	Structural Condition	Biological Health	Preservation Priority	Native Status [4]	Tree Action [5]	Candidate Bat Roosting Tree	Rationale for Impact	Ownership	Compensation [6]	GPS Horizontal Accuracy (m) [10]	NAD83 UTM X Coordinate	Zone 17N Y Coordinate
317	Alive	European Mountain-ash	*Sorbus aucuparia*	26	0	0	0	0	0	26	7	05-10 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Neighbouring Lands	1:1	0.53	549001.0242	4841058.987
322	Alive	Trembling Aspen	*Populus tremuloides*	15	0	0	0	0	0	15	3	05-10 m	High	High	High	N	Injure	---	Development and/or grading	Neighbouring Lands	---	1.16	548993.5648	4841066.252
323	Alive	Trembling Aspen	*Populus tremuloides*	38	0	0	0	0	0	38	6	05-10 m	High	High	High	N	Injure	---	Development and/or grading	Neighbouring Lands	---	0.24	548994.2477	4841066.914
324	Alive	White Elm	*Ulmus americana*	43	0	0	0	0	0	43	12	10-15 m	High	High	High	N	Injure	---	Development and/or grading	Neighbouring Lands	---	0.10	548988.2988	4841076.464
332	Alive	Trembling Aspen	*Populus tremuloides*	10	0	0	0	0	0	10	2	05-10 m	High	High	High	N	Injure	---	Development and/or grading	Neighbouring Lands	---	0.53	548971.7143	4841088.594
334	Alive	Trembling Aspen	*Populus tremuloides*	13	0	0	0	0	0	13	3	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Neighbouring Lands	1:1	0.41	548966.1774	4841093.137
335	Alive	Trembling Aspen	*Populus tremuloides*	11	0	0	0	0	0	11	3	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Neighbouring Lands	1:1	0.47	548965.7255	4841093.649
336	Alive	Trembling Aspen	*Populus tremuloides*	12	0	0	0	0	0	12	3	05-10 m	High	High	High	N	Injure	---	Development and/or grading	Neighbouring Lands	---	0.61	548964.3661	4841094.872
337	Alive	Black Cherry	*Prunus serotina*	13	0	0	0	0	0	13	4	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.12	548958.3039	4841099.727
338	Alive	European Mountain-ash	*Sorbus aucuparia*	22	0	0	0	0	0	22	5	05-10 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.06	548954.6009	4841102.706
339	Alive	White Elm	*Ulmus americana*	51	42	0	0	0	0	66	10	10-15 m	Medium	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.04	548949.9546	4841107.37
340	Alive	Common Apple	*Malus pumila*	22	13	0	0	0	0	26	5	05-10 m	Medium	High	High	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.02	548948.3744	4841108.221
341	Alive	Black Cherry	*Prunus serotina*	54	0	0	0	0	0	54	8	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.06	548938.8659	4841118.802
342	Alive	Little-leaved Linden	*Tilia cordata*	33	25	0	0	0	0	41	8	10-15 m	Medium	Medium	Medium	I	Injure	---	Development and/or grading	Neighbouring Lands	---	0.16	548930.836	4841130.954
343	Alive	Little-leaved Linden	*Tilia cordata*	58	21	0	0	0	0	62	8	10-15 m	Medium	High	Medium	I	Injure	---	Development and/or grading	Neighbouring Lands	---	0.75	548929.0036	4841132.902
344	Alive	Black Cherry	*Prunus serotina*	66	0	0	0	0	0	66	7	10-15 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.07	548899.5929	4841101.951
345	Alive	Black Cherry	*Prunus serotina*	63	0	0	0	0	0	63	10	10-15 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.03	548898.2425	4841100.299
346	Alive	Black Cherry	*Prunus serotina*	77	0	0	0	0	0	77	13	10-15 m	Medium	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.04	548886.5604	4841087.949
347	Alive	Black Cherry	*Prunus serotina*	12	0	0	0	0	0	12	3	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.04	548880.0234	4841081.702
348	Alive	Black Cherry	*Prunus serotina*	36	0	0	0	0	0	36	6	10-15 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.03	548877.092	4841078.76
349	Alive	Black Cherry	*Prunus serotina*	54	0	0	0	0	0	54	8	10-15 m	Medium	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.14	548845.6167	4841046.982
350	Alive	American Mountain-ash	*Sorbus americana*	32	13	0	0	0	0	35	5	05-10 m	Low	Low	Low	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.19	548818.3801	4841019.425
351	Alive	Black Cherry	*Prunus serotina*	27	24	0	0	0	0	36	7	05-10 m	Low	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.03	548629.4941	4840831.681
352	Alive	Black Cherry	*Prunus serotina*	29	0	0	0	0	0	29	5	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.02	548617.932	4840818.57
353	Alive	Black Cherry	*Prunus serotina*	28	0	0	0	0	0	28	4	10-15 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.01	548615.8455	4840817.62
354	Alive	Black Cherry	*Prunus serotina*	36	0	0	0	0	0	36	6	10-15 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.03	548609.6157	4840811.594
355	Alive	Black Cherry	*Prunus serotina*	24	0	0	0	0	0	24	4	05-10 m	Low	Low	Low	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.02	548608.5242	4840810.74
357	Alive	Manitoba Maple	*Acer negundo*	15	14	12	10	0	0	26	6	05-10 m	Low	Low	Low	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.02	548683.1044	4840693.036
358	Alive	White Ash	*Fraxinus americana*	36	0	0	0	0	0	36	4	10-15 m	Low	Low	Low	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.02	548747.0793	4840628.39
1001	Alive	White Spruce	*Picea glauca*	47	0	0	0	0	0	47	8	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.07	548897.565	4840715.105
1002	Alive	Norway Maple	*Acer platanoides*	58	0	0	0	0	0	58	10	10-15 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.09	548857.106	4840615.042
1003	Alive	Norway Maple	*Acer platanoides*	74	0	0	0	0	0	74	10	10-15 m	Low	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.46	548851.3343	4840609.535
1004	Alive	Norway Maple	*Acer platanoides*	39	0	0	0	0	0	39	9	05-10 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.84	548846.452	4840603.848
1005	Alive	Norway Maple	*Acer platanoides*	49	0	0	0	0	0	49	9	05-10 m	Low	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.14	548840.8616	4840596.352
1006	Alive	Norway Maple	*Acer platanoides*	54	0	0	0	0	0	54	10	05-10 m	High	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.61	548836.1711	4840590.74
1007	Alive	Norway Maple	*Acer platanoides*	57	0	0	0	0	0	57	11	10-15 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	1.11	548820.7267	4840574.798
1008	Alive	Blue Spruce	*Picea pungens*	50	0	0	0	0	0	50	8	10-15 m	High	High	High	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.97	548818.4423	4840569.28
1009	Alive	Norway Maple	*Acer platanoides*	25	25	25	25	22	0	55	9	05-10 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Road Right of Way	1:1	0.30	548813.358	4840562.152
1010	Alive	Norway Spruce	*Picea abies*	64	0	0	0	0	0	64	6	10-15 m	Low	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.59	548810.7103	4840580.587
1011	Alive	Norway Spruce	*Picea abies*	48	0	0	0	0	0	48	6	10-15 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.32	548810.8135	4840578.063
1012	Alive	Norway Spruce	*Picea abies*	91	0	0	0	0	0	91	13	10-15 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.33	548806.1228	4840582.019
1013	Alive	Blue Spruce	*Picea pungens*	38	0	0	0	0	0	38	5	05-10 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	1.19	548812.8127	4840591.609
1014	Alive	Norway Maple	*Acer platanoides*	40	33	0	0	0	0	52	10	05-10 m	High	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.63	548799.6147	4840576.859
1015	Dead	White Spruce	*Picea glauca*	45	0	0	0	0	0	45	0	05-10 m	Low	Low	Low	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.08	548793.9111	4840584.067
1016	Alive	Blue Spruce	*Picea pungens*	40	0	0	0	0	0	40	6	05-10 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.34	548805.3817	4840597.715
1017	Alive	Blue Spruce	*Picea pungens*	25	0	0	0	0	0	25	3	05-10 m	Medium	Medium	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.06	548792.6704	4840604.093
1018	Alive	Sugar Maple	*Acer saccharum*	88	0	0	0	0	0	88	12	10-15 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.52	548782.2956	4840601.006
1019	Alive	White Spruce	*Picea glauca*	30	0	0	0	0	0	30	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.00	548789.7361	4840608.776
1020	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.53	548792.0111	4840609.845
1021	Alive	White Spruce	*Picea glauca*	22	0	0	0	0	0	22	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.66	548795.1946	4840610.307
1022	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	2.31	548795.4492	4840613.735
1023	Alive	White Spruce	*Picea glauca*	23	0	0	0	0	0	23	4	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	2.50	548795.8819	4840613.351
1024	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	4	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.28	548794.8339	4840615.422
1025	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	4	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.96	548796.7491	4840613.048
1026	Alive	White Spruce	*Picea glauca*	30	0	0	0	0	0	30	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.89	548796.2785	4840616.484
1027	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	4	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.52	548798.1991	4840617.835
1028	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	5	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.15	548797.3998	4840619.299
1029	Alive	White Spruce	*Picea glauca*	20	0	0	0	0	0	20	2	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.60	548799.6156	4840618.057
1030	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	4	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.90	548799.148	4840617.21
1031	Alive	White Spruce	*Picea glauca*	30	0	0	0	0	0	30	4	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.55	548801.984	4840620.523
1032	Alive	White Spruce	*Picea glauca*	26	0	0	0	0	0	26	4	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	2.21	548802.0034	4840623.472
1033	Alive	White Spruce	*Picea glauca*	31	0	0	0	0	0	31	6	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.94	548804.0425	4840621.727
1034	Alive	White Spruce	*Picea glauca*	30	0	0	0	0	0	30	5	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.90	548804.5104	4840625.125
1035	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	4	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.52	548805.4622	4840625.474
1036	Alive	White Spruce	*Picea glauca*	28	0	0	0	0	0	28	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.94	548807.0873	4840626.501
1037	Alive	White Spruce	*Picea glauca*	31	0	0	0	0	0	31	6	05-10 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.88	548807.2438	4840625.549
1038	Alive	White Spruce	*Picea glauca*	24	0	0	0	0	0	24	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.84	548808.1625	4840628.156
1039	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.34	548809.2436	4840629.649
1040	Alive	White Spruce	*Picea glauca*	21	0	0	0	0	0	21	5	05-10 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.54	548811.763	4840629.668
1041	Alive	White Spruce	*Picea glauca*	38	0	0	0	0	0	38	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.70	548810.4943	4840630.718
1042	Alive	White Spruce	*Picea glauca*	19	0	0	0	0	0	19	4	05-10 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.26	548813.2188	4840629.869
1043	Alive	White Spruce	*Picea glauca*	26	0	0	0	0	0	26	4	05-10 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.83	548814.0414	4840633.144
1044	Alive	White Spruce	*Picea glauca*	26	0	0	0	0	0	26	5	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.76	548815.2006	4840637.168
1045	Alive	White Spruce	*Picea glauca*	36	0	0	0	0	0	36	6	05-10 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.13	548813.5607	4840631.428
1046	Alive	White Spruce	*Picea glauca*	28	0	0	0	0	0	28	6	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.76	548815.8586	4840636.851
1047	Alive	White Spruce	*Picea glauca*	17	0	0	0	0	0	17	3	05-10 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.85	548817.5367	4840636.026
1048	Alive	White Spruce	*Picea glauca*	20	0	0	0	0	0	20	3	05-10 m	High	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.44	548818.0687	4840638.72
1049	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	5	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.65	548819.6421	4840637.929
1050	Alive	White Spruce	*Picea glauca*	30	0	0	0	0	0	30	4	05-10 m	High	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.78	548820.3005	4840640.085
1051	Alive	White Spruce	*Picea glauca*	23	0	0	0	0	0	23	5	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.32	548821.4261	4840639.917
1052	Alive	White Spruce	*Picea glauca*	28	0	0	0	0	0	28	5	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.46	548821.9891	4840642.525
1053	Alive	White Spruce	*Picea glauca*	25	0	0	0	0	0	25	5	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.76	548822.9225	4840642.171
1054	Alive	White Spruce	*Picea glauca*	17	0	0	0	0	0	17	4	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.61	548823.958	4840644.341
1055	Alive	Norway Spruce	*Picea abies*	63	0	0	0	0	0	63	10	10-15 m	High	High	High	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.52	548826.5752	4840646.449
1056	Alive	Norway Spruce	*Picea abies*	75	0	0	0	0	0	75	10	10-15 m	Low	High	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.65	548830.5236	4840650.622
1057	Alive	Norway Spruce	*Picea abies*	61	40	0	0	0	0	73	10	10-15 m	Low	High	Medium	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.52	548832.5869	4840652.943
1058	Alive	White Spruce	*Picea glauca*	28	0	0	0	0	0	28	5	05-10 m	Medium	Medium	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	0.96	548827.6278	4840641.749
1059	Alive	White Spruce	*Picea glauca*	28	0	0	0	0	0	28	5	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.23	548827.7561	4840641
1060	Alive	White Spruce	*Picea glauca*	30	0	0	0	0	0	30	7	05-10 m	High	High	High	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.11	548831.1672	4840641.62
1061	Alive	Eastern White Cedar	*Thuja occidentalis*	22	22	10	0	0	0	33	6	05-10 m	Medium	High	Medium	N	Remove	---	Development and/or grading	Applicant Lands	1:1	1.18	548841.2199	4840654.493
1062	Alive	Blue Spruce	*Picea pungens*	20	0	0	0	0	0	20	4	05-10 m	High	High	High	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.19	548829.2563	4840632.031
1063	Alive	Little-leaved Linden	*Tilia cordata*	24	0	0	0	0	0	24	6	05-10 m	High	High	High	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.45	548822.8454	4840628.03
1064	Alive	Blue Spruce	*Picea pungens*	15	0	0	0	0	0	15	4	05-10 m	High	High	High	I	Remove	---	Development and/or grading	Applicant Lands	1:1	0.52	548807.3773	4840614.839
1065	Alive	Blue Spruce	*Picea pungens*	22	0	0	0	0	0	22	4	05-10 m	High	High	High	I	Remove	---	Development and/or grading	Applicant Lands	---	0.16	548806.0534	4840614.412
1491	Alive	Black Cherry	*Prunus serotina*	28	0	0	0	0	0	28	6	05-10 m	Medium	Medium	Medium	N	Injure	---	Development and/or grading	Applicant Lands	---	0.12	548926.0346	4841133.264
1492	Alive	Little-leaved Linden	*Tilia cordata*	11	11	0	0	0	0	16	4	05-10 m	Medium	Medium	Medium	I	Injure	---	Development and/or grading	Applicant Lands	---	0.33	548927.5042	4841131.92

Tree Assessment Criteria

1. DBH (cm): Diameter at breast height, 1.4 m above ground, measured in centimetres.

2. Crown Reserve (m): Crown diameter (tree's canopy) measured at intervals of 1. 3. 5. 7.5. 10. 15 metres

3. Height (m): Height of tree from ground to top of crown.

4. Structural Condition: Related to defects in a tree's structure. (i.e., lean. codominant trunks).
High - No structural defects. well-developed crown.
Medium - Presence of minor structural defects.
Low - Presence of major structural defects including drastic leans and imminent branch and/or trunk failure.

5. Biological Health: Related to presence and extent of disease/disease symptoms and the vigour of the tree.
High - No diseases/disease symptoms present. and moderate to high vigour.
Medium - Presence of minor diseases/disease symptoms. and/or moderate vigour.
Low - Presence of major diseases/disease symptoms. (i.e., extensive crown dieback). and/or severely poor vigour.

6. Preservation Priority: A ratino of each tree's projected survival related to existing conditions.
High - High to moderate biological health, and well developed crown. Well suited as a shade tree or screen planting. Will survive existing conditions indefinitely.
Medium - One or more moderate to severe defects in biological health and/or structural condition. Marginally suited as a shade tree or screen plantino. Can survive at least 3 - 5 years under existino conditions.
This category also includes stock planted within past 2 years that is not yet established.
Low - Low biological health and/or severely damaged/defective structural condition. and/or unsuitable for urban uses. If biologically defective. survival for more than 1-3 years under existino conditions is unlikely.

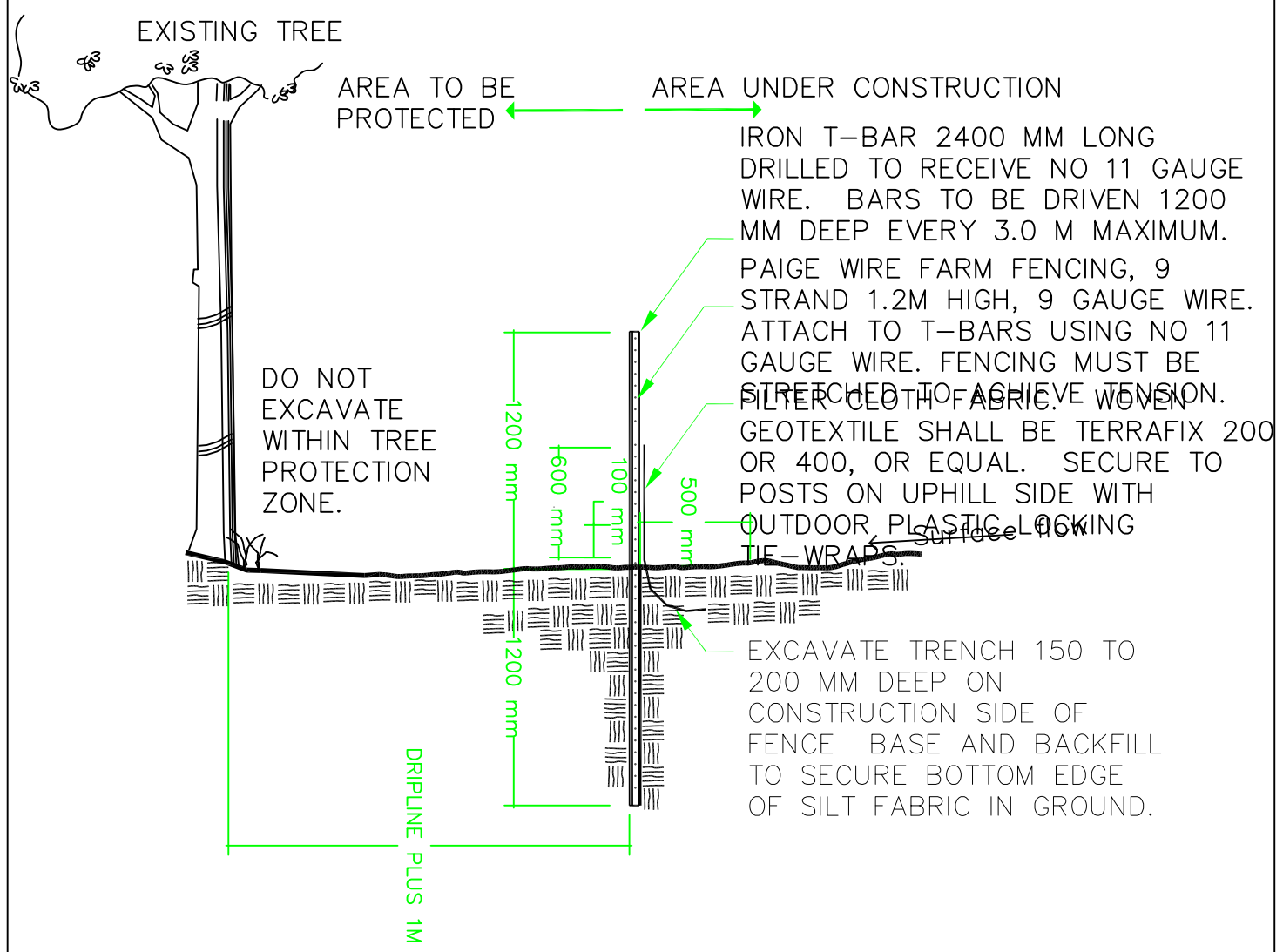
7. Native Status:
Native – Native to Ontario
Introduced – Not native to Ontario
Genus - Unable to identify species level due to lack of key characteristics at the time of survey.
Source: NHIC (Natural Heritage Information Centre). 2009. Ontario Vascular Plant Species List. Biodiversity Explorer Online Database. Ontario Ministry of Natural Resources.

8. Tree Action
Preserve - Trees that are located fully outside the limits of disturbance. Protection of the entire root zone of the tree is desirable.
Injure - Trees that are partially located within the limit of disturbance, and proposed activities are anticipated to impact less than 30% of their crown reserve/dripline.
Remove - Trees located within the limit of disturbance for which 30% or more of the drioline is anticioated to be impacted: and/or trees which have low biological health. and/or severe structural defects. and/or is not likely to survive more than 1-3 years. and/or will not survive proposed development.
N/A - Not applicable.

9. Compensation
1:1 - Tree proposed for removal and should be replanted at a minumum 1:1 ratio.

10. GPS Horizontal Accuracy (m)
For trees located using Trimble Geo7x (10 cm) GPS Unit, this unit is capable of 10 cm horizontal accuracy under ideal conditions. Ideal conditions are considered to be in an open area with low ionospheric activity. Tree canopy significantly impacts GPS accuracy.
The GPS Horizontal Accuracy is the real-time differitial horizontal accuracy for each tree in metres. Corrections are calculated at a base station and transmitted to the Trimble GPS unit receiver via the cellular network & Can-net Virtual Reference Station Network. http://www.can-net.ca/

Appendix B: TPF and Signage Detail



NOTES

1. PROTECTIVE FENCING IS NOT TO BE LESS THAN 1M OUTSIDE OF TREE DRIPLINES.
2. THE PLACEMENT OF TREE PROTECTION FENCING SHALL BE FIELD REVIEWED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY WORKS.
3. THE AREA WITHIN THE PROTECTIVE FENCING SHALL REMAIN UNDISTURBED AND SHALL NOT BE USED FOR STORAGE OF BUILDING MATERIALS, EQUIPMENT ACCESS, OR STORAGE OF PROJECT RELATED GARBAGE.
3. SEDIMENT ACCUMULATIONS TO BE REMOVED BY CONTRACTOR WHEN SEDIMENT DEPOSITS REACH 1/3 HEIGHT OF FILTER FABRIC.
4. TREE PROTECTION MEASURES SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF FINE GRADING AND SODDING OR SEEDING.

1 Paige Wire Tree Protection Fencing
N.T.S.

LEGEND

Legend text

No.	Date	Description
x	YYYY/MM/DD	xx

Revisions

TITLE

Project:PROJECT

Client:CLIENT

DOUGAN &ASSOCIATES
ECOLOGICAL CONSULTING & DESIGN
77 Wyndham Street South • Guelph ON N1E 5R3
T 519.822.1609 • F 519.822.5389 • www.dougan.ca

North

Date:DATE
Scale:SCALE
Drawn By:NAME
Checked By:NAME

Figure Number:

FIGURE

Appendix C: Polocorp Concept Plan

KEY MAP - N.T.S.

DRAFT PLAN OF SUBDIVISION

PT OF LOT 17, CONCESSION 16
IN THE FORMER GEOGRAPHIC TWP OF NICHOL
CENTRE WELLINGTON

POLOCORP INC.

20 0 20 40 60 80 100
SCALE = 1:1400 (metric)

LAND USE SCHEDULE

DESCRIPTION	LOTS/BLKS.	UNITS	AREA (ha.)
Single Detached	1-10	62-88	8.006
Street Townhouses	11-18	80-118	6.185
Medium Density	19, 20	71-102	1.617
Mixed Use	21	8-14	0.338
Existing House	22	-	0.330
Stormwater Management Facility	23	-	2.412
Trail	24	-	0.417
Parkland	25	-	0.806 (5.2%)
Pedestrian Walkway	26, 27	-	0.077
Environmental Feature & Buffer	28	-	3.340
MTO Allowance	29, 30	-	0.527
Roads	-	-	3.502
TOTAL		221-323	19.389

SALEABLE FRONTAGE	LENGTH	UNIT SMALL	UNIT LARGE
Single Detached	1,014.5m	36' (11.0m)	50' (15.2m)
Street Townhouses	830.0m	18' (5.5m)	27' (8.3m)
TOTAL	1,844.5m		

DENSITY	
Gross Area (ha)	19.389 ha (47.91 ac)
Developable Area (ha)	15.477 ha (38.25 ac)
Net Density (upha)	14.3 - 20.9 upha
Net People-Jobs (3.05 per unit)	43.6 - 63.8 P/J pha

LEGEND

Wetland Limit
Wetland 30m Buffer

INFORMATION REQUIRED

UNDER SECTION 51 (17) OF THE PLANNING ACT, R.S.O. 1990, c.P.13 AS AMENDED

INFORMATION REQUIRED BY CLAUSES a,b,c,d,e,f,g, j AND I ARE AS SHOWN ON THE DRAFT PLAN.

(h) Municipal Water Supply
(i) Sandy Loam
(k) Municipal Sanitary and Storm Sewers

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

O.L.S.
Surveying Inc.

XX XX, 2024
DATE

OWNER'S CERTIFICATE

I HEREBY CONSENT TO THE FILING OF THIS PLAN BY POLOCORP INC., IN DRAFT FORM

MIKE PUOPOLO
Polocorp Inc.

DATE

APPROVALS

REGIONAL MUNICIPALITY OF
WATERLOO APPROVAL BLOCK

DRAFT
FOR DISCUSSION
PURPOSES ONLY

APPROVED: DATE:

REVISIONS		
DATE	BY	DESCRIPTION

POLOCORP
379 Queen Street South, Kitchener | N2T 1W6 | 519-745-3249 | polocorpinc.com

DATE: December 10, 2024	SCALE 1:4000 (metric)
PROJECT: 1012 (Fergus)	DRAWN BY: GFE