Tree Inventory, Preservation & Protection Report

DPH Developments
Norwood Park Subdivision – Phase 4
Norwood, ON

Prepared for:
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May 14, 2022

Treescape Consulting Project TC348

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Executive Summary

This tree inventory, preservation and protection report was prepared for DPH Development Inc and clearly identifies all woody vegetation within, and adjacent to, their subdivision development site known as Norwood Park Phase 4 located at the west end of Albine Street in Norwood, ON. The report also outlines sufficient preservation measures for the maximum number of trees possible/feasible given the extent of the proposed development and perceived grade changes across the site.

A summary of the development impacts are as follows and are detailed in section 4 of the report.

Preservations

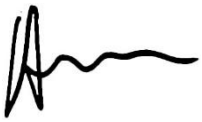
- A total of 30 trees are recommended for preservation along the eastern boundary of the development site.
- Several neighbouring trees located in the outlying corners of the development site need to be preserved

Removals

- With the exception of the above mentioned, all remaining trees across the development site will need to be removed to accommodate construction and grading efforts.

Recommendations outlined in this report are based on the preliminary plan of subdivision and grading plans that were provided by the client. Development conflicts should be reassessed if the plan is revised.

Moving forward, it is highly recommended to retain an experienced consulting arborist to supervise site clearing & grubbing operations as well as all recommended preservation measures such as tree protection fencing installation and monitoring. It is also recommended that an arborist advise on, and oversee, any site activities where construction will negatively impact trees scheduled for preservation. Such activities could include (but not limited to) silt fence installation, boring, excavation and grade changes.



Andrew Smit,
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ISA BCMA, TRAQ

1. Introduction

Assignment

Treescape Certified Arborists was retained by Justin Cogan of DPH Developments to complete a Tree Inventory and Preservation Plan as part of a draft plan submission requirement for Phase 4 of their Norwood Park Subdivision located at the west end of Albine Street in Norwood, ON.

The work plan for this project included the following:

- Utilize site plans provided by the client
- Inventory trees on and within 6m of proposed development site.
- Assess the physiological and structural condition of the trees
- Assess scope of proposed development, identify potential conflicts with tree resources and make recommendations to remove and/or retain any trees or treed compartments based on information found within the preliminary site plan and grading plans (if available).
- Record the assessments in the form of a written report identifying the surveyed tree compartments and/or individual trees on the supplied plan.
- Provide details of aftercare (management recommendations) of trees to be preserved.
- Provide details of how retained trees will be successfully preserved pre-construction, during construction and post-construction.

Supporting Documents

- 20120-DP1 2022-01-12 – Draft Plan of Subdivision, Engage Engineering, June 30, 2021 (PDF)
- ACAD-20120-GP1-Model2022-04-18 – Proposed Grading Plan, Engage Engineering, November 19, 2021 (DWG)

Limitations of Assignment

My investigation was limited to above-ground observations of the subject trees and the surrounding site. My investigation was based solely upon my site inspections on April 20 and 27, 2022. Except where specifically noted, the trees were not cored, probed or climbed and there was no detailed inspection of the root crowns involving excavations. All of the information provided to me regarding the history of the project and the trees was assumed to be true. If any information is found to be false, the conclusions in this report may be invalidated.

This report is not a risk assessment, nor does it provide any estimates for the cost of remedies. My expertise in this matter is limited to arboriculture, and this report is not intended to be legal advice. I do not guarantee the safety, health, or condition of the subject trees. There is no warranty or guarantee, expressed or implied, that problems or deficiencies in the subject trees may not arise in the future.

Arborists are tree specialists who use their knowledge, education, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments cannot be guaranteed.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

2. Observations

Existing Site Conditions

This property is approximately 14 hectares of agricultural land located in the north section of Norwood ON. The site fronts Albine Street and is bound by Phase 3 of the development to the east, Phase 2 to the southeast, agricultural land to the south and west, and a Hydro One high-voltage transmission corridor to the north.

Tree resources across the property are concentrated within three north-south hedgerows that divide the farm fields and along a roadway that runs east-west through the southern end of the property. The composition of trees throughout the site is a relatively even mix of early-mature to mature deciduous species such as Manitoba maple, sugar maple, black cherry and large tooth aspen with smaller quantities of the same aged American basswood, bur oak, American elm and eastern hop-hornbeam.

Inventory Results

The tree inventory and assessment took place on April 20th and 27th, 2022 under leaf-off conditions just at most species were beginning to start bud break. The effects of the May 2022 storm on the inventory were assessed on June 13. Approximately 100 trees across the site were destroyed as a result of the storm.

Detailed inventory and assessment data of all tree resources identified within 6m of the proposed development area is reproduced in **Appendix A** below. The data establishes:

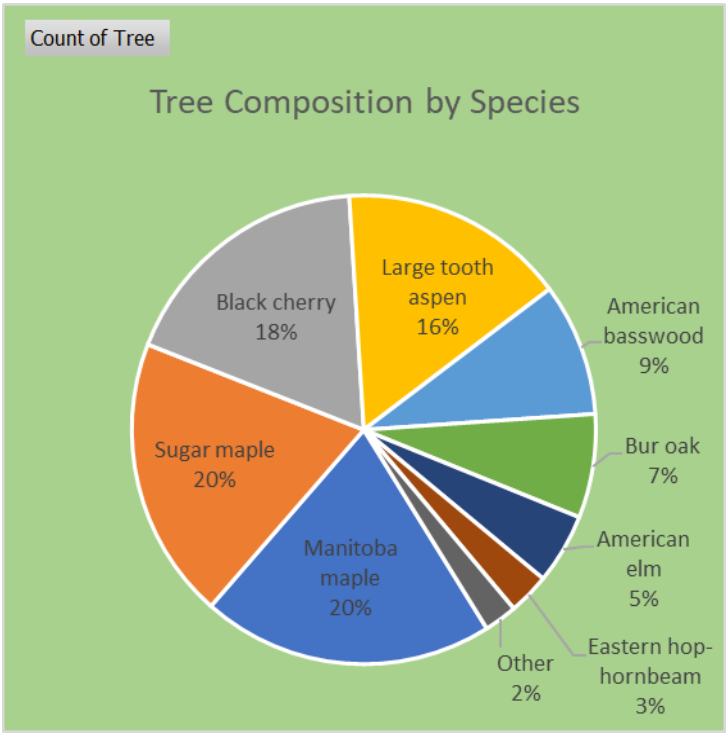
- general area of tree location and owner
- species
- age range
- number of stems
- diameter at breast height (1.4m)
- crown radius (where possible)
- condition (physiological and structural)
- development conflict (yes/no)
- recommendations including tree protection zones (TPZ) where necessary.

The appended plan TIPP-01 found in **Appendix B** identifies the locations of the inventoried trees and outlines the true canopy area of the wooded portions of the property. This drawing also illustrates the recommended removals and tree protection to be read in conjunction with the Tree Preservation & Removals Plan outlined in section 4.

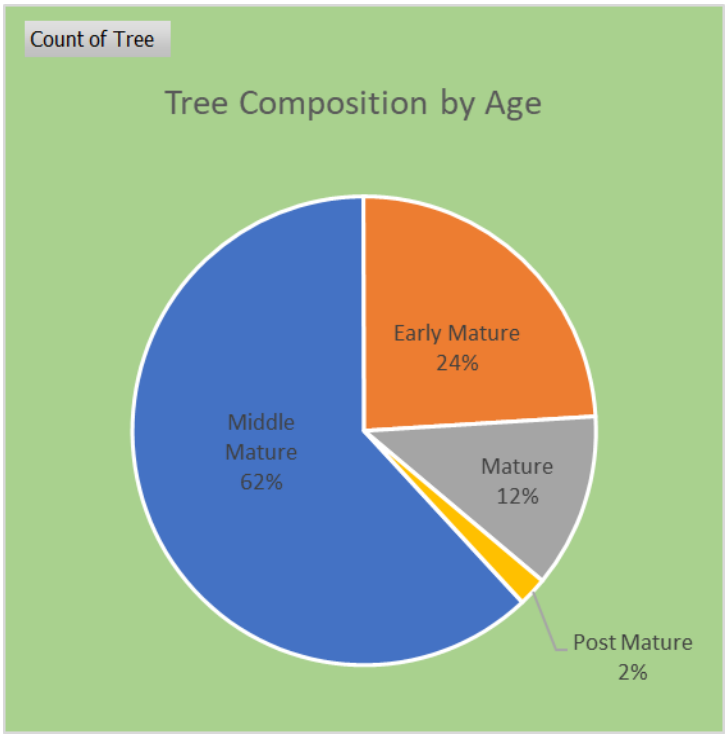
Tree locations were located using a Trimble Catalyst GNSS system with a rated accuracy in the range of +/-1cm. In areas where canopy and other obstructions inhibit an accurate lock on a tree location, the use of True Pulse rangefinder was used in conjunction with the GNSS system to determine location using distance and bearing from an accurate base point. The overall accuracy of tree locations is most likely to be in the range of +/-1m. As such, the attached drawing should only be used as a reference of tree location in relation to the proposed development. The services of a legal surveyor may need to be retained should a situation arise where an exact position of a tree is required.

The graphs below create a graphic summary of the tree inventory results in terms of tree composition according to species, age and condition within the inventoried area.

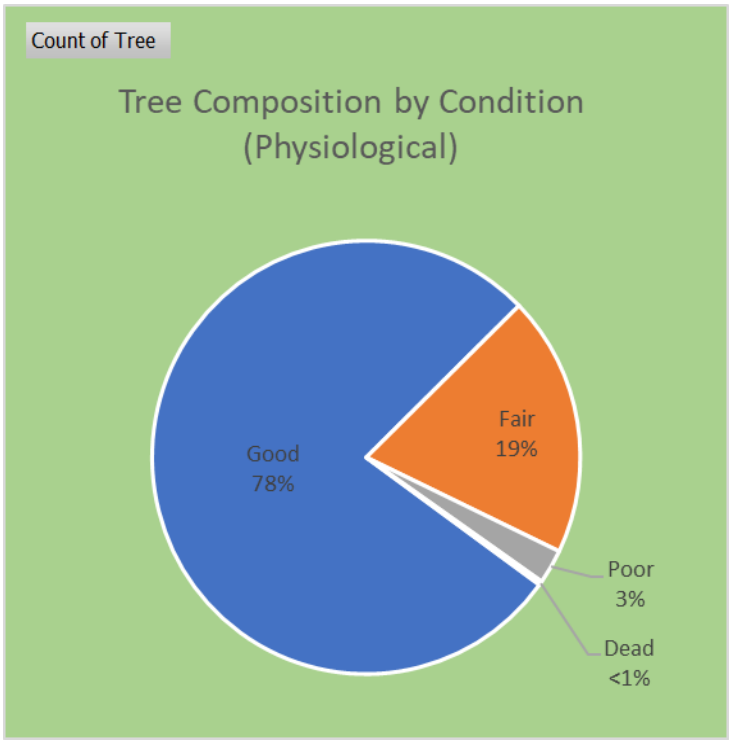
Tree Composition by Species

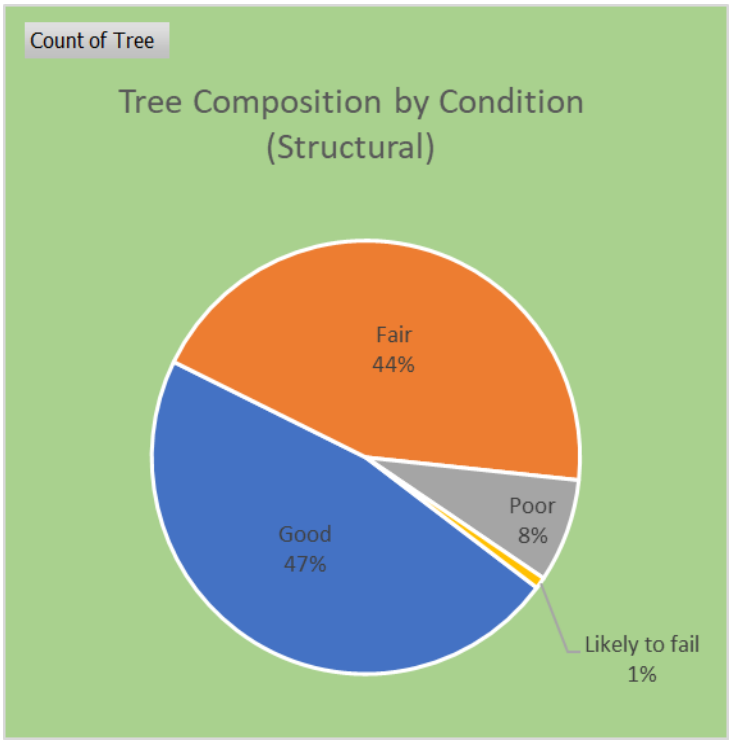


Tree Composition by Age



Tree Composition by Condition





Proposed Development

The preliminary site plan proposes a 148-lot subdivision including the construction of roadways, stormwater management elements, parklands, as well as all required site servicing and infrastructure.

As part of the design process, an inventory and assessment has been undertaken of all tree resources on, and immediately adjacent to, the proposed development area that have above and/or below ground parts likely to be affected by the proposed works.

3. Discussion

Development Impacts

Construction impacts upon the retained public and private trees, hedges and larger shrub masses are likely to comprise the following;

- Soil compaction with subsequent shearing, suffocation and death of roots
- Physical severance of roots during construction
- Accumulation of toxic substances in the root zones
- Physical damage to the trunks and branches of trees due to the operating requirements of plant and machinery

Together with an inventory of trees in accord with industry guidelines, the assessment identifies significant trees for retention that;

- Have a safe useful life expectancy that justifies their retention, and any design changes and costs associated with that; i.e., extend into the future for an acceptable period in the design life of the intended development,
- Are likely to survive the construction process,
- Are likely to survive within any changed growth environment and,
- Are compatible with, and sustainable within the context of new development.

Section 4 elaborates on the identified conflicts between the assessed tree resources and the proposed construction activities and details the recommendations for management in terms of trees recommended for removal and preservation within the context of development.

Establishing Tree Protection Distances

In order to determine the impact of construction and a baseline for tree protection distances, it is necessary to consider the likely distribution and pattern of the root systems of the trees, hedges and larger shrubs identified for retention in the tree inventory.

The Tree Protection Zone (TPZ) is the minimum setback required to maintain the structural integrity of the tree's anchor roots, based on generally accepted arboricultural practices. If trees are protected to the TPZ then the tree's anchor root structure is expected to be maintained.

I recommend the optimal root protection distances for trees, hedges and larger shrubs during construction be based on a tree's dripline. If the optimum protection distance cannot be maintained, design and construction efforts should strive to respect minimum tree protection distances in line with industry best practices such as the minimum tree protection distances outlined in the City of Toronto's Tree Protection Policy and Specifications for Construction Near Trees.

The following chart shows the recommended TPZ based on the diameter of the tree being preserved. Some trees and site conditions may require a greater setback at the discretion of the governing authority[1].

Table 1: Minimum Tree Protection Zone (TPZ) Determination

Diameter of Trunk (Dbh)[2] (in centimetres)	**Optimal Tree Protection Zone**	**Minimum Tree Protection Zone**[4] (Distance from trunk measured in metres)
<10 cm	Drip line[3] for all Dbh categories	1.2 m
10-29 cm		1.8 m
30-40 cm		2.4 m
41-50 cm		3.0 m
51-60 cm		3.6 m
61-70 cm		4.2 m
71-80 cm		4.8 m
81-90 cm		5.4 m
91-100 cm		6.0 m
>100 cm		6 cm protection for each 1 cm Dbh

[1] Roots can extend from the trunk to 2-3 times the distance of the drip line.
[2] Diameter at breast height (DBH) measurement of tree trunk taken at 1.37 metres above ground.
[3] The drip line is defined as the area beneath the outer most branch tips of a tree
[4] Tree Protection Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work

The tree protection distances shown on the Tree Inventory & Protection Plan of this report are based upon a radius of protection measured from the edge of the tree trunk and are minimum protection distances. The recommended tree protection areas for this project are detailed on the appended drawing TIPP-01.

The specification for tree protection fencing as well as a table of minimum tree protection distances is outlined in drawing TIPP-02.

4. Tree Preservation and Removals Plan

Heritage Trees

There were no heritage trees identified on this site requiring consideration for preservation or removal. However, the following is a list of large old trees across the site that could be considered historically significant. All of these trees are to be removed to accommodate development and overall grading of the site.

- Tree #758 and 766– Sugar maple, 105cm and 115cm Dbh
- Tree #908 – Black Cherry, 57cm Dbh ***(update – destroyed by May 2022 storm)***
- Tree #945 – Bur oak, 105cm Dbh ***(update – destroyed by May 2022 storm)***
- Tree #1013 –American beech, 96cm Dbh ***(update – damaged by May 2022 storm)***
- Tree #1018, 1019 and 1021 – Sugar maple, 73cm, 122cm and 91cm Dbh ***(update – tree 1018 & 1019 significantly damaged by May 2022 storm)***

Endangered Species

There were no endangered species identified on this site requiring consideration for preservation or removal.

Bat Habitat Trees

Trees were not assessed for structural characteristics that may be conducive to bat habitat.

Migratory Bird Protection

Trees were not assessed for active nesting sites at time of inventory. It should be noted that the landowner must conform to the Migratory Birds Convention Act prior to any land disturbance. This is outlined in greater detail in Section 6 as well as drawing TIPP-02.

Trees to Preserve

Tree # 1020

Development Conflict – This neighbouring tree is located adjacent to the northwest corner of the development site and does NOT conflict with the limits of excavation or grading

Recommendation – Preserve this tree.

Mitigation – The perimeter silt fencing will serve as adequate preservation for this tree due to its distance from the development envelop.

Tree # 1043, 1044, 1045

Development Conflict – These are neighbouring trees located in the southern corners of the development site. The proposed limits of excavation and/or grading encroach on the minimum TPZ of tree 1043.

Recommendation – Preserve these trees. The required encroachment on the canopy and root zones of tree 1043 is minimal and not expected to affect the long-term health or structural integrity of these trees.

Mitigation – All excavating (including silt fence installation) performed between the dripline and the prescribed minimum TPZ needs to be monitored by a qualified and experienced Certified Arborist in order to minimize root damage and effectively prune back any exposed roots.

Prune trees (crown or root) as required to accommodate construction. Any pruning (crown or root) should be executed or supervised by a certified arborist to ANSI A300 standards.

Install protective fencing as specified in drawing TIPP-01.

Tree # 701-706, 709, 759, 763, 779, 783, 785, 786, 789, 791, 792, 795, 800, 801, 802, 809, 811, 814, 815, 824-826, 844, 851, 861,

Development Conflict – These trees are located along the eastern boundary of the development site. The proposed limits of excavation and/or grading encroach on the recommended TPZ of these trees (dripline) but the minimum TPZ can still be respected.

Recommendation – Preserve these trees. The required encroachment on the canopy and root zones of these trees is minimal and not expected to affect the long-term health or structural integrity of these trees. Note that a meeting was held with neighbouring homeowners on June 13, 2022 to explain which trees were being preserved along the eastern boundary and why.

Mitigation – These trees should be reassessed during detail design for any conflicts that may require additional preservation measures, pruning (crown or root), or a change in status to removal.

All excavating (including silt fence installation) performed between the dripline and the prescribed minimum TPZ needs to be monitored by a qualified and experienced Certified Arborist in order to minimize root damage and effectively prune back any exposed roots.

Prune trees (crown or root) as required to accommodate construction. Any pruning (crown or root) should be executed or supervised by a certified arborist to ANSI A300 standards.

Install protective fencing as specified in drawing TIPP-01.

Trees to Remove

Tree # 872, 1038, 1039, 1041

Development Conflict – Tree 872 is a neighbouring tree at the northeast corner of the development and the other three are shared or neighbouring trees located along the southwest boundary of the development site. The proposed limits of excavation and/or grading conflict with the minimum TPZ of these trees.

Recommendation / Mitigation – Negotiate the mutually beneficial removal of these trees with the adjacent landowner and replace with more suitable specimens.

Tree # 707, 708, 710-758, 760-762, 764-778, 780-782, 784, 787, 788, 790, 793, 794, 796-799, 803-808, 810, 812, 813, 816-823, 827-843, 845-850, 852-860, 862-871, 873-1019, 1021-1037, 1040, 1042, 1046-1049, CPT 1, CPT2, CPT 3

Development Conflict – These trees are in direct conflict with limits of excavation and/or grading throughout the development site.

Recommendation / Mitigation – Remove trees.

Note that prior to the removal of these trees, all trees to be preserved should be clearly marked or flagged on-site by the project Arborist.

All stumps located in close proximity to established tree protection zones should either be cut close to grade and left or removed using low-impact techniques such as stump grinding.

General Tree Preservation Recommendations

- It is recommended that all grading efforts strive to meet the existing grade within 1m of all prescribed tree protection zones.
- In areas where erosion control measures are not required as a condition of construction activities, silt fencing should be installed in conjunction with prescribed tree protection fencing on the development side of the tree protection areas.
- Any excavation in proximity to prescribed tree protection areas, including silt fence installation, needs to be supervised by a certified arborist. Any resulting tree damage or exposed roots need to be corrected and/or treated to ANSI A300 standards.
- Confirmation that all tree protection fencing has been satisfactorily installed is required prior to commencing any construction activities including equipment mobilization.

5. Tree Protection Detail

The following tree protection notes along with other specifications and referenced figures can be found on drawing TIPP-02.

Before Construction

- Prior to any construction work (including approved tree works), establishment of storage compounds, site offices, latrines, contractor parking or storage of any materials; TPZ fencing should be installed as detailed in TIPP-01. In the event that TPZ fencing interferes with any of the above-mentioned works, provisions should be made allowing supervised access to these areas by the attending arborist.
- All approved tree works shall be undertaken in accord with the recommendations detailed in both the Tree Preservation and Removals section in accord with current ISA Best Management Practice – Tree Pruning (companion publication to ANSI standard A300 Part 1 (2008) Tree, Shrub and other Woody Plant Management –Standard Practices, Pruning).
- Prior to site disturbance the landowner must confirm that no migratory birds are making use of the site for nesting. Common Nesting periods extend from April 1st to September 30th for most birds in Southern Ontario. Large scale tree removals are prohibited during this period. Nesting can occur at other times as well. Should tree removal during bird nesting season be unavoidable the Developer is required to obtain a nesting survey. Nesting survey should be undertaken by an ecologist or registered professional biologist immediately prior to any site alteration to ensure no active nests are present.
- All trees identified for retention within the Tree Preservation and Removals section shall be protected using the recommended tree protection methods. Tree protection barriers installed in the locations identified on the appended Tree Inventory and Protection Plan create tree protection zones which are subject to revision as required by final design.
- No unauthorized activities may take place within the TPZ of a tree scheduled for preservation.
- It is recommended that barriers for tree protection be constructed of plastic construction fencing and secured to T-bars (driven into the ground) and a wooden 2”x 4” top rail. The gauge of wire and number of ties used to secure the fencing should be sufficient to hold the fence in place for the duration of the work. Refer to detail #2 on drawing TIPP-02 for specifics. In all cases, tree protection fencing should meet or exceed any local ordinances that may be in effect.
- Sediment fencing to be installed in close proximity to the critical root zone of a protected tree shall be constructed as per detail #4 shown on TIPP-02.
- All sections of tree protection fencing should be clearly marked with signs stating that the area within is a Tree Protection Zone and that no one is allowed to disturb this area. Signs should contain contact information for the contractor and/or the Arborist and clearly state any consequences that are associated with violations. Text on the signs should be in all languages commonly spoken on the site. Refer to detail #3 on drawing TIPP-02 for an example.
- No construction activities including grade changes, surface treatments or excavation of any kind are permitted within the area identified on the Tree Protection Plan or Site Plan as a minimum tree protection zone (TPZ). No root cutting is permitted. No storage of materials or fill is permitted within the TPZ. No movement or storage of vehicles or equipment is permitted within the TPZ. The area(s) identified as a TPZ must be protected and remain undisturbed at all times.

- If the minimum tree protection zone (TPZ) must be reduced to facilitate construction access, the tree protection barriers must be maintained at a lesser distance and the exposed portion of TPZ must be protected using a horizontal root protection method approved by a certified arborist.
- All pruning of tree roots and branches must be completed by a certified arborist and in accordance with good arboricultural practice. Roots that must be pruned within a prescribed TPZ must first be exposed using pneumatic (air) excavation, by hand digging or by using low pressure hydraulic (water) excavation. The water pressure for hydraulic excavation must be low enough that root bark is not damaged or removed. This will allow a proper pruning cut and minimize tearing of the roots.
- A TPZ barrier is not required where an existing fence serves the same purpose. At such locations, the barrier shall terminate at the existing fence so that a continuous barricade is provided between the trees and the area of work. It is recommended that the existing fence be augmented with silt fencing for added protection.
- The barriers shall be maintained erect and in good repair throughout the duration of construction operations without breaks and unsupported sections and shall be removed upon completion of the work.

During Construction

Throughout the construction an ISA Certified Arborist should be retained for the following:

- Supervise site clearing and grubbing operations to ensure that the correct trees are removed and that the trees (and their roots) scheduled for preservation are being respected.
- Supervise silt fence installation to ensure that roots of trees scheduled for preservation are respected.
- Supervise the installation of all tree protection barriers to ensure the fencing is installed in the correct location and to the proper specifications.
- Monitor the Tree Protection Zone (TPZ) barriers and TPZ signage.
- Advise on and oversee any site activities where construction impacts upon retained trees.
- Advise on root severance and pruning.
- Advise on tree damage caused by, or occurring during construction, including storm events, and specify and detail remediation methods.
- Advise on location of boring and excavation methods in the root zone of trees where appropriate.
- Advise on grade changes within the critical root zone of trees.
- Monitor tree health and advise on cultural requirement of trees during construction.
- Advise on any unforeseen changes to construction that are likely to be detrimental to retained trees.
- Supervise the removal/dismantling of all the approved tree protection systems at the completion of construction.

Works Cited

Fite, Kelby and E. Thomas Smiley. Best Management Practices: *Managing Trees During Construction, 2nd Edition*. International Society of Arboriculture, 2016.

Matheny, Nelda and James R. Clark. Trees and Development: A Technical Guide to Preservation of Trees During Land Development. International Society of Arboriculture, 1998.

Appendix A

Tree Inventory Data

Treescape Certified Arborists - TC348
Tree Inventory Data - Peterborough Homes
Phase 4 - Albine Street, Norwood, ON

Data Collected: April 20, 27 & June 13, 2022
Arborist: Andrew Smit (ISA ON-1292BM)
Conditions: Leaf-off (bud break), sunny & clear conditions

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
701	P	Black cherry	*Prunus serotina*	Middle Mature	1	21	4	Good	Good	Suppressed	Preserve	1.8
702	P	Sugar maple	*Acer saccharum*	Middle Mature	1	36	4	Good	Good		Preserve	2.4
703	P	Black cherry	*Prunus serotina*	Middle Mature	1	30	5	Good	Fair	Dbh taken at root flare	Preserve	2.4
704	P	Black cherry	*Prunus serotina*	Mature	1	36	5	Good	Good		Preserve	2.4
705	P	Manitoba maple	*Acer negundo*	Middle Mature	4	38	5	Good	Poor	Heavy lean and sprawling stems	Preserve	2.4
706	P	Manitoba maple	*Acer negundo*	Early Mature	1	20	3	Good	Fair		Preserve	1.8
707	P	Manitoba maple	*Acer negundo*	Early Mature	2	27	3	Fair	Fair	Dbh taken at root flare	Remove	
708	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	17	3	Good	Good		Remove	
709	S	Manitoba maple	*Acer negundo*	Early Mature	2	24	4	Fair	Fair	Dbh taken at root flare	Preserve	1.8
710	P	Manitoba maple	*Acer negundo*	Early Mature	1	17	3	Good	Fair		Remove	
711	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	32	4	Good	Good		Remove	
712	P	Manitoba maple	*Acer negundo*	Middle Mature	3	41	5	Fair	Fair	Deadwood throughout crown	Remove	
713	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	21	5	Good	Good		Remove	
714	P	Manitoba maple	*Acer negundo*	Middle Mature	2	49	9	Good	Fair	Stem union at base of tree	Remove	
715	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	20	4	Good	Good		Remove	
716	P	Manitoba maple	*Acer negundo*	Middle Mature	2	51	8	Good	Poor	Stem union at 1m with significant included bark to base of tree	Remove	
717	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	32	4	Good	Good		Remove	
718	P	Manitoba maple	*Acer negundo*	Middle Mature	2	39	5	Good	Fair	West stem is on significant lean to west	Remove	
719	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	30	3	Good	Good		Remove	
720	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	32	5	Good	Good		Remove	
721	P	Large tooth aspen	*Populus grandidentata*	Mature	1	51	6	Good	Good		Storm Damaged	
721.1	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	35	6	Good	Fair	Crooked stem and leans to the east	Storm Damaged	
722	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	19	5	Good	Good		Storm Damaged	
723	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	26	3	Fair	Fair	Crooked stem and leans to the south	Remove	

P = Private, N = Neighbour, M = Municipal, S = Shared
DL = Dripline, (x) = Remove due to poor health or EAB

*Overall diameter for multi-stem trees is an aggregated
Dbh calculated as the square root of the sum of each stem squared

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
724	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	30	3	Fair	Poor	Top of tree is broken out, one small branch remains	Remove	
725	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	2	45	5	Good	Good	Stem union at base of tree	Storm Damaged	
726	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	20	4	Good	Good		Remove	
727	P	Black cherry	*Prunus serotina*	Mature	1	43	7	Good	Fair	Crown heavy to the east Formerly tree tree tree 362	Storm Damaged	
728	P	Black cherry	*Prunus serotina*	Mature	1	54	5	Good	Good	Formerly tree tree tree 363	Storm Damaged	
729	P	Sugar maple	*Acer saccharum*	Early Mature	1	21	5	Good	Good		Storm Damaged	
730	P	Manitoba maple	*Acer negundo*	Early Mature	1	17	3	Good	Fair	Lea to the west	Remove	
731	P	Sugar maple	*Acer saccharum*	Middle Mature	1	43	6	Good	Good	West side of tree suppressed by adjacent tree	Remove	
732	P	Large tooth aspen	*Populus grandidentata*	Mature	1	66	7.5	Good	Good		Remove	
733	P	Manitoba maple	*Acer negundo*	Middle Mature	1	33	4	Good	Fair	Heavy lean to the west	Storm Damaged	
734	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	16	3	Fair	Good		Remove	
735	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	15	3	Good	Good		Remove	
736	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	2	28	4	Good	Fair	Stem union at 0.5m with good inclusion	Remove	
737	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	21	4	Good	Good		Remove	
738	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	15	4	Good	Good		Storm Damaged	
739	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	25	4	Good	Good		Remove	
740	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	24	4.5	Good	Good		Remove	
741	P	Manitoba maple	*Acer negundo*	Middle Mature	1	23	3	Poor	Fair	Deadwood throughout crown	Remove	
742	P	Sugar maple	*Acer saccharum*	Early Mature	1	15	3	Good	Good		Remove	
743	P	Large tooth aspen	*Populus grandidentata*	Mature	1	56	5	Good	Fair	Minor deadwood throughout crown	Remove	
744	P	Sugar maple	*Acer saccharum*	Early Mature	1	17	5	Good	Good		Remove	
745	P	Sugar maple	*Acer saccharum*	Early Mature	1	21	3	Good	Good		Remove	
746	P	Sugar maple	*Acer saccharum*	Middle Mature	1	27	5	Good	Good		Remove	
747	P	Sugar maple	*Acer saccharum*	Middle Mature	1	38	5.5	Good	Good		Remove	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
748	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	20	3	Fair	Fair		Storm Damaged	
749	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	24	4	Good	Fair		Remove	
750	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	19	3	Good	Good		Remove	
751	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	18	3	Good	Good		Remove	
752	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	2	53	6.5	Good	Fair	Stem union at base of tree	Remove	
753	P	Large tooth aspen	*Populus grandidentata*	Mature	1	45	4	Good	Fair		Remove	
754	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	16	2.5	Fair	Fair	Deadwood throughout crown	Remove	
755	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	24	3.5	Good	Good		Remove	
756	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	19	4	Fair	Fair	Deadwood throughout crown	Remove	
757	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	34	5	Good	Good		Remove	
758	P	Sugar maple	*Acer saccharum*	Post Mature	2	115	8	Good	Fair	Stem union at base of tree with 3m of included bark. Each Stem bifurcates again between 5-6m with significant included bark. Formerly tree 364	Remove	
759	N	American elm	*Ulmus americana*	Middle Mature	1	36	8	Good	Good		Preserve	2.4
760	P	Sugar maple	*Acer saccharum*	Middle Mature	1	40	4	Good	Good		Remove	
761	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	30	6	Good	Fair		Remove	
762	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	20	4.5	Good	Fair		Remove	
763	P	Eastern hop-hornbeam	*Ostrya virginiana*	Middle Mature	1	28	5	Good	Fair	Construction damage north side. Fill at base of tree.	Preserve	1.8
764	P	Sugar maple	*Acer saccharum*	Middle Mature	1	22	3.5	Good	Good		Remove	
765	P	Large tooth aspen	*Populus grandidentata*	Middle Mature		35	5	Good	Good		Remove	
766	P	Sugar maple	*Acer saccharum*	Post Mature	1	105	11.5	Good	Good	Formerly tree 365	Remove	
767	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	27	5	Good	Good		Remove	
768	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	17	3	Good	Fair		Remove	
769	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	16	3	Good	Fair		Remove	
770	P	Sugar maple	*Acer saccharum*	Early Mature	1	18	3	Good	Good		Remove	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
771	P	American basswood	*Tilia americana*	Mature	3	80	7	Good	Fair	Formerly tree 366. stem union at base of tree.	Storm Damaged	
772	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	35	4	Good	Good		Remove	
773	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	25	3.5	Good	Good		Remove	
774	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	25	3	Good	Good		Remove	
775	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	25	3	Good	Good		Remove	
776	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	20	2.5	Good	Good		Remove	
777	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	15	2	Good	Good		Remove	
778	P	American basswood	*Tilia americana*	Middle Mature	1	14	2	Fair	Fair		Remove	
779	P	Sugar maple	*Acer saccharum*	Middle Mature	3	50	7	Good	Fair	Formerly tree 367. stem union at base of tree.	Preserve	3
780	P	Sugar maple	*Acer saccharum*	Middle Mature	1	20	4	Good	Good		Remove	
781	P	Sugar maple	*Acer saccharum*	Early Mature	1	15	5	Good	Good		Remove	
782	P	Sugar maple	*Acer saccharum*	Mature	1	98	8	Good	Fair	Formerly tree 368. Multiple stem unions with included bark.	Remove	
783	P	Sugar maple	*Acer saccharum*	Middle Mature	1	21	6	Good	Good		Preserve	1.8
784	P	Sugar maple	*Acer saccharum*	Mature	2	52	8	Good	Fair	Formerly tree 369.	Storm Damaged	
785	P	Sugar maple	*Acer saccharum*	Middle Mature	1	26	2.5	Good	Good		Preserve	1.8
786	P	Sugar maple	*Acer saccharum*	Middle Mature	1	25	4	Good	Good		Preserve	1.8
787	P	Sugar maple	*Acer saccharum*	Middle Mature	2	55	7	Good	Fair	stem union at .5m.	Remove	
788	P	Sugar maple	*Acer saccharum*	Early Mature	1	15	2.5	Good	Good		Remove	
789	P	Sugar maple	*Acer saccharum*	Middle Mature	1	25	5	Good	Good		Preserve	1.8
790	P	Sugar maple	*Acer saccharum*	Early Mature	1	16	3.5	Good	Good		Remove	
791	S	Sugar maple	*Acer saccharum*	Middle Mature	1	23	6	Good	Good		Preserve	1.8
792	S	Sugar maple	*Acer saccharum*	Middle Mature	1	25	4	Good	Good		Preserve	1.8
793		American elm	*Ulmus americana*	Early Mature	1	20	3	Good	Good		Remove	
794	P	Sugar maple	*Acer saccharum*	Middle Mature	1	25	3.5	Good	Good		Remove	

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Dbh calculated as the square root of the sum of each stem squared

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
795	P	Sugar maple	*Acer saccharum*	Early Mature	1	20	5	Good	Good		Preserve	1.8
796	P	Sugar maple	*Acer saccharum*	Early Mature	1	19	3	Good	Good		Remove	
797	P	American basswood	*Tilia americana*	Middle Mature	4	47	6.5	Good	Fair	stem union at base of tree.	Remove	
798	P	Sugar maple	*Acer saccharum*	Middle Mature	1	34	6	Good	Good		Remove	
799	P	Sugar maple	*Acer saccharum*	Early Mature	1	15	3.5	Good	Good		Remove	
800	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	40	7	Good	Good		Preserve	3
801	P	American elm	*Ulmus americana*	Middle Mature	1	29	3.5	Good	Good		Preserve	1.8
802	P	Sugar maple	*Acer saccharum*	Middle Mature	2	28	4.5	Good	Fair		Preserve	1.8
803	P	Sugar maple	*Acer saccharum*	Early Mature	1	21	4	Good	Good		Remove	
804	P	Sugar maple	*Acer saccharum*	Early Mature	1	17	3	Good	Good		Remove	
805	P	American basswood	*Tilia americana*	Early Mature	1	20	3	Good	Good		Remove	
806	P	Manitoba maple	*Acer negundo*	Middle Mature	2	29	5	Fair	Fair		Remove	
807	P	American elm	*Ulmus americana*	Middle Mature	1	22	3	Dead	Poor		Remove	
808	P	Sugar maple	*Acer saccharum*	Middle Mature	1	28	4	Good	Good		Remove	
809	P	Sugar maple	*Acer saccharum*	Early Mature	1	19	3.5	Good	Good		Preserve	1.8
810	P	Sugar maple	*Acer saccharum*	Early Mature	1	18	4	Good	Good		Remove	
811	S	Sugar maple	*Acer saccharum*	Early Mature	1	15	4	Good	Good		Preserve	1.8
812	P	Black cherry	*Prunus serotina*	Middle Mature	1	35	4.5	Good	Fair	Bifurcation at 5m.	Remove	
813	P	American elm	*Ulmus americana*	Early Mature	1	15	3	Good	Good		Remove	
814	P	Sugar maple	*Acer saccharum*	Early Mature	1	15	4.5	Good	Good		Preserve	1.8
815	S	Sugar maple	*Acer saccharum*	Early Mature	1	15	4.5	Good	Good		Preserve	1.8
816	P	Black cherry	*Prunus serotina*	Middle Mature	1	44	6	Good	Fair	Formerly tree 370.	Remove	
817	P	American basswood	*Tilia americana*	Middle Mature	7	73	4	Good	Poor	Decay in center stem. stem union at base of tree.	Remove	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
818	P	American elm	*Ulmus americana*	Early Mature	2	17	4	Good	Fair		Remove	
819	P	American elm	*Ulmus americana*	Middle Mature	2	26	4	Good	Fair		Remove	
820	P	American elm	*Ulmus americana*	Early Mature	2	18	3	Good	Good	2 separate trees close together.	Remove	
821	P	Bur oak	*Quercus macrocarpa*	Mature	1	52	6.5	Good	Good		Remove	
822	P	Sugar maple	*Acer saccharum*	Middle Mature	2	45	5.5	Good	Fair	Stem union at base of tree with significant included bark.	Remove	
823	P	Bur oak	*Quercus macrocarpa*	Mature	1	53	6.5	Good	Good		Remove	
824	P	Sugar maple	*Acer saccharum*	Early Mature	1	15	4	Good	Fair	Crooked stem. Stem injury east side.	Preserve	1.8
825	P	Sugar maple	*Acer saccharum*	Middle Mature	1	34	6	Good	Good	Formerly tree 371.	Preserve	2.4
826	P	Sugar maple	*Acer saccharum*	Middle Mature	1	24	6	Good	Good		Preserve	1.8
827	P	Sugar maple	*Acer saccharum*	Middle Mature	1	29	5.5	Good	Good		Remove	
828	P	Sugar maple	*Acer saccharum*	Early Mature	2	21	4	Good	Good	Stem union at base of tree.	Remove	
829	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	43	5.5	Good	Good	Formerly tree 372.	Remove	
830	P	American elm	*Ulmus americana*	Middle Mature	1	28	6	Good	Good	lean to west.	Remove	
831	P	Black cherry	*Prunus serotina*	Middle Mature	1	27	5	Good	Good		Storm Damaged	
832	P	Manitoba maple	*Acer negundo*	Early Mature	1	18	3	Fair	Fair		Storm Damaged	
833	P	Manitoba maple	*Acer negundo*	Early Mature	2	18	5	Good	Fair	Lean to the east.	Storm Damaged	
834	P	American basswood	*Tilia americana*	Middle Mature	2	32	5	Good	Fair		Storm Damaged	
835	P	Manitoba maple	*Acer negundo*	Middle Mature	3	52	5	Good	Poor	2 larger stems heavy lean to west. 3 separate trees close together.	Storm Damaged	
836	P	Manitoba maple	*Acer negundo*	Middle Mature	2	73	6.5	Good	Poor	Dbh taken at root flare. Significant decay at base of tree.	Storm Damaged	
837	P	Manitoba maple	*Acer negundo*	Middle Mature	2	48	9	Good	Poor	2 separate trees close together with heavy lean to the west.	Storm Damaged	
838	P	Manitoba maple	*Acer negundo*	Mature	4	93	6	Good	Poor	Heavy lean to the west. Several stems and branches have already failed.	Storm Damaged	
839	P	Manitoba maple	*Acer negundo*	Mature	6	101	10	Fair	Poor	Sprawling tree with stem union at base of tree.	Remove	
840	P	Manitoba maple	*Acer negundo*	Middle Mature	1	24	3	Fair	Fair		Storm Damaged	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
841	S	Manitoba maple	*Acer negundo*	Early Mature	1	16	5	Fair	Fair		Storm Damaged	
842	P	Manitoba maple	*Acer negundo*	Middle Mature	2	28	3.5	Fair	Fair	2 trees close together.	Storm Damaged	
843	P	Manitoba maple	*Acer negundo*	Early Mature	1	15	3	Fair	Fair		Storm Damaged	
844	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	50	4.5	Good	Good	Formerly tree tree 373. Bulbous longitudinal crack north side from base to 2m with decent response growth.	Preserve	3
845	P	Manitoba maple	*Acer negundo*	Middle Mature	1	32	5	Good	Fair	Lean to the east.	Storm Damaged	
846	P	Manitoba maple	*Acer negundo*	Middle Mature	1	25	3	Fair	Fair	Lean to the south.	Storm Damaged	
847	P	Manitoba maple	*Acer negundo*	Early Mature	1	23	4	Fair	Fair		Remove	
848	P	Manitoba maple	*Acer negundo*	Middle Mature	1	28	5	Good	Fair	Heavy lean to the west.	Remove	
849	P	Large tooth aspen	*Populus grandidentata*	Mature	1	52	5	Fair	Fair	Deadwood throughout crown.	Remove	
850	P	Manitoba maple	*Acer negundo*	Middle Mature	1	27	5	Good	Fair		Storm Damaged	
851	P	Bur oak	*Quercus macrocarpa*	Mature	1	63	6	Good	Good	Formerly tree tree 374.	Preserve	4.2
852	P	Manitoba maple	*Acer negundo*	Early Mature	1	16	4	Fair	Fair		Remove	
853	P	Manitoba maple	*Acer negundo*	Middle Mature	1	24	4	Good	Fair		Remove	
854	P	Manitoba maple	*Acer negundo*	Middle Mature	1	34	3	Good	Fair	Heavy lean to the west.	Storm Damaged	
855	P	Manitoba maple	*Acer negundo*	Middle Mature	4	75	6	Good	Poor	4 separate trees close together with heavy lean to the west.	Storm Damaged	
856	P	Manitoba maple	*Acer negundo*	Middle Mature	1	40	7	Good	Fair	Lean to the west.	Storm Damaged	
857	P	Manitoba maple	*Acer negundo*	Middle Mature	3	47	3	Fair	Fair	2 separate trees leaning to the west.	Storm Damaged	
858	P	Manitoba maple	*Acer negundo*	Middle Mature	1	25	3	Good	Fair		Storm Damaged	
859	P	Manitoba maple	*Acer negundo*	Middle Mature	1	30	3.5	Good	Fair		Storm Damaged	
860	P	Manitoba maple	*Acer negundo*	Early Mature	2	35	3	Poor	Fair	2 separate trees that are in decline.	Remove	
861	S	Manitoba maple	*Acer negundo*	Early Mature	1	19	4	Fair	Fair	Lean to the east.	Preserve	1.8
862	P	Manitoba maple	*Acer negundo*	Middle Mature	1	22	3	Fair	Fair		Storm Damaged	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
863	P	Manitoba maple	*Acer negundo*	Middle Mature	1	22	2.5	Fair	Fair	Lean to the east.	Storm Damaged	
864	P	Manitoba maple	*Acer negundo*	Early Mature	1	17	3	Fair	Fair		Storm Damaged	
865	P	Bur oak	*Quercus macrocarpa*	Mature	2	70	6	Good	Fair	Formerly tree tree 375.stem union at .75m.	Remove	
866	P	Manitoba maple	*Acer negundo*	Early Mature	1	15	3	Fair	Fair		Remove	
867	P	Manitoba maple	*Acer negundo*	Middle Mature	1	26	3	Fair	Fair	Lean to the west.	Storm Damaged	
868	P	Manitoba maple	*Acer negundo*	Middle Mature	1	40	3.5	Poor	Likely to fail	Tree is failed at 1m.	Storm Damaged	
869	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	41	5	Good	Good		Remove	
870	P	Manitoba maple	*Acer negundo*	Middle Mature	1	33	5	Fair	Fair	Heavy lean to the west.	Remove	
871	P	Sugar maple	*Acer saccharum*	Mature	1	72	6.5	Good	Good		Remove	
872	N	Manitoba maple	*Acer negundo*	Middle Mature	1	45	6	Good	Fair	heavy lean to the north,	Remove	
873	P	Manitoba maple	*Acer negundo*	Middle Mature	1	43	6	Good	Fair	heavy lean to the west.	Storm Damaged	
874	P	Manitoba maple	*Acer negundo*	Mature	2	69	10	Good	Poor	Parts of tree have already failed.	Remove	
875	P	American elm	*Ulmus americana*	Mature	2	80	8.5	Good	Fair	Dbh taken at root flare. Bifurcation at 2m with significant included bark.	Remove	
876	P	Black cherry	*Prunus serotina*	Middle Mature	2	63	6.5	Good	Fair	Dbh taken at root flare. Bifurcation at 1.5m with significant included bark.	Remove	
877	P	Black cherry	*Prunus serotina*	Mature	1	50	7	Good	Fair	Broken branches throughout.	Remove	
878	P	Black cherry	*Prunus serotina*	Middle Mature	3	43	8	Good	Good	3 trees close together.	Remove	
879	P	Black cherry	*Prunus serotina*	Middle Mature	2	40	5.5	Good	Fair	Stem union at base of tree.	Remove	
880	P	Black cherry	*Prunus serotina*	Middle Mature	1	31	4	Good	Good		Storm Damaged	
881	P	Black cherry	*Prunus serotina*	Middle Mature	1	26	3	Good	Fair		Remove	
882	P	Manitoba maple	*Acer negundo*	Middle Mature	3	34	4	Fair	Fair	Deadwood and grapevine	Remove	
883	P	Black cherry	*Prunus serotina*	Middle Mature	3	59	8	Good	Fair	Deadwood and grapevine.	Remove	
884	P	Black cherry	*Prunus serotina*	Middle Mature	2	38	4.5	Good	Good	2 trees close together.	Storm Damaged	
885	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	40	5.5	Good	Good		Remove	
886	P	Sugar maple	*Acer saccharum*	Middle Mature	1	33	5	Fair	Good	Deadwood throughout crown.	Storm Damaged	

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887	P	Manitoba maple	*Acer negundo*	Middle Mature	3	31	6	Fair	Fair	North stem is dead.	Remove	
888	P	Bur oak	*Quercus macrocarpa*	Middle Mature	2	48	7	Good	Fair		Remove	
889	P	Bur oak	*Quercus macrocarpa*	Early Mature	1	17	4	Good	Good		Remove	
890	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	21	3.5	Good	Good		Remove	
891	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	20	3.5	Good	Good		Storm Damaged	
892	P	Black cherry	*Prunus serotina*	Early Mature	1	17	2.5	Good	Good		Remove	
893	P	Manitoba maple	*Acer negundo*	Middle Mature	3	36	5	Poor	Fair	Large deadwood and decay along larger stem.	Storm Damaged	
894	P	Manitoba maple	*Acer negundo*	Middle Mature	1	40	7	Poor	Fair	Significant deadwood	Storm Damaged	
895	P	Manitoba maple	*Acer negundo*	Middle Mature	1	30	7	Good	Fair	Heavy lean to the west.	Storm Damaged	
896	P	Manitoba maple	*Acer negundo*	Early Mature	1	15	3	Good	Fair	Copice growth at 2m.	Storm Damaged	
897	P	Black cherry	*Prunus serotina*	Middle Mature	1	43	8	Fair	Fair	Deadwood throughout crown. basal injury on main stem.	Remove	
898	P	Black cherry	*Prunus serotina*	Middle Mature	1	45	5.5	Fair	Fair	Decay at base of tree. Deadwood throughout crown.	Storm Damaged	
899	P	Manitoba maple	*Acer negundo*	Middle Mature	1	24	4.5	Fair	Fair		Remove	
900	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	25	3.5	Good	Poor	Significant decay along entire stem.	Remove	
901	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	17	3	Good	Good		Storm Damaged	
902	P	Manitoba maple	*Acer negundo*	Early Mature	1	17	5	Fair	Fair	Decay at base of tree.	Remove	
903	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	39	4	Good	Good		Storm Damaged	
904	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	28	4	Good	Fair		Remove	
905	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	29	3	Good	Good		Storm Damaged	
906	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	25	3	Good	Good		Storm Damaged	
907	P	Black cherry	*Prunus serotina*	Early Mature	4	25	3	Poor	Fair		Remove	
908	P	Black cherry	*Prunus serotina*	Mature	1	57	7	Good	Good	Minor deadwood. old basal injury. good reaction wood.	Storm Damaged	

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909	P	Apple	*Malus* spp.	Mature	1	40	4.5	Fair	Poor	Deadwood throughout. significant decay at base of tree.	Storm Damaged	
910	P	American basswood	*Tilia americana*	Mature	4	75	6.5	Good	Fair	Stem union at base of tree.	Storm Damaged	
911	P	Black cherry	*Prunus serotina*	Middle Mature	1	35	5	Fair	Good	Minor deadwood and grapevine.	Storm Damaged	
912	P	Black cherry	*Prunus serotina*	Middle Mature	1	30	5.5	Good	Good		Remove	
913	P	Bur oak	*Quercus macrocarpa*	Early Mature	1	15	3	Good	Good		Remove	
914	P	Black cherry	*Prunus serotina*	Middle Mature	2	28	4	Good	Fair	Deadwood. stem union at base of tree.	Remove	
915	P	American basswood	*Tilia americana*	Middle Mature	4	56	7	Good	Fair	Stem union at base of tree.	Remove	
916	P	Black cherry	*Prunus serotina*	Middle Mature	4	33	5.5	Good	Fair	stem union at base of tree.	Remove	
917	P	Black cherry	*Prunus serotina*	Middle Mature	1	30	6	Fair	Good	Deadwood throughout crown.	Remove	
918	P	Black cherry	*Prunus serotina*	Middle Mature	1	35	7	Good	Good		Remove	
919	P	Eastern hop-hornbeam	*Ostrya virginiana*	Middle Mature	1	37	5	Good	Fair	Ribbed longitudinal crack along main stem	Remove	
920	P	Black cherry	*Prunus serotina*	Early Mature	1	15	4	Good	Fair	Lean to the west,.	Remove	
921	P	Sugar maple	*Acer saccharum*	Middle Mature	1	50	7.5	Good	Good		Remove	
922	P	Sugar maple	*Acer saccharum*	Middle Mature	1	44	8	Good	Good		Remove	
923	P	Black cherry	*Prunus serotina*	Middle Mature	1	43	3.5	Fair	Poor	Central leader is dead and decay along main stem.	Remove	
924	P	Black cherry	*Prunus serotina*	Middle Mature	1	37	7	Good	Good	Crown heavy to the west.	Remove	
925	P	Black cherry	*Prunus serotina*	Mature	1	50	7	Fair	Good	Deadwood	Remove	
926	P	Sugar maple	*Acer saccharum*	Middle Mature	2	33	4.5	Good	Good	2 trees close together.	Remove	
927	P	Sugar maple	*Acer saccharum*	Middle Mature	2	24	4	Good	Good		Remove	
928	P	Black cherry	*Prunus serotina*	Middle Mature	1	31	6	Fair	Poor	Significant decay at base of tree.	Remove	
929	P	Bur oak	*Quercus macrocarpa*	Early Mature	1	16	4	Good	Good	Grapevine	Remove	
930	P	Black cherry	*Prunus serotina*	Middle Mature	2	48	5	Fair	Fair	East stem in decline.	Remove	
931	P	Black cherry	*Prunus serotina*	Middle Mature	1	35	7.5	Fair	Fair	Deadwood throughout crown.	Remove	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
932	P	Manitoba maple	*Acer negundo*	Middle Mature	7	59	7.5	Fair	Poor	Large sprawling tree with dead central stem.	Remove	
933	P	Black cherry	*Prunus serotina*	Mature	1	59	6	Fair	Fair	Deadwood throughout crown.	Remove	
934	P	Manitoba maple	*Acer negundo*	Middle Mature	2	27	4	Fair	Fair	Stem union at base of tree.	Remove	
935	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	30	5.5	Good	Good		Remove	
936	P	Manitoba maple	*Acer negundo*	Middle Mature	3	40	8	Good	Fair	Stem union at base of tree. lean to the west.	Remove	
937	P	Manitoba maple	*Acer negundo*	Middle Mature	3	35	5	Fair	Poor	Stem union at base of tree with significant decay.	Remove	
938	P	Manitoba maple	*Acer negundo*	Middle Mature	2	45	5.5	Good	Fair	Stem union at base of tree.	Remove	
939	P	Manitoba maple	*Acer negundo*	Middle Mature	4	55	6	Good	Fair	Stem union at base of tree.	Storm Damaged	
940	P	Black cherry	*Prunus serotina*	Mature	2	55	5	Fair	Poor	Deadwood. significant decay at base of main stem.	Remove	
941	P	American elm	*Ulmus americana*	Middle Mature	1	24	4.5	Good	Good		Remove	
942	P	Manitoba maple	*Acer negundo*	Middle Mature	1	23	5	Good	Fair		Storm Damaged	
943	P	Black cherry	*Prunus serotina*	Middle Mature	1	30	6	Good	Good	All 4 trees are suppressed in this area.	Storm Damaged	
944	P	American basswood	*Tilia americana*	Early Mature	3	23	6.5	Good	Fair	Stem union at base of tree.	Storm Damaged	
945	P	Bur oak	*Quercus macrocarpa*	Mature	1	105	10	Good	Good		Storm Damaged	
946	P	Eastern hop-hornbeam	*Ostrya virginiana*	Middle Mature	1	28	7	Good	Good		Storm Damaged	
947	P	Black cherry	*Prunus serotina*	Early Mature	2	15	6	Good	Fair	Stem union at. 5m.	Storm Damaged	
948	P	Black cherry	*Prunus serotina*	Middle Mature	1	33	4	Fair	Poor	Significant decay along main stem.	Storm Damaged	
949	P	Sugar maple	*Acer saccharum*	Middle Mature	1	40	6	Good	Good		Storm Damaged	
950	P	Black cherry	*Prunus serotina*	Middle Mature	1	28	7.5	Good	Good		Storm Damaged	
951	P	Bur oak	*Quercus macrocarpa*	Early Mature	1	15	2	Good	Good		Remove	
952	P	Black cherry	*Prunus serotina*	Middle Mature	1	37	5	Fair	Fair	Cavity at the base of tree. Deadwood.	Remove	
953	P	Bur oak	*Quercus macrocarpa*	Early Mature	1	15	3	Good	Good		Remove	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
954	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	27	3.5	Fair	Good	Deadwood throughout crown.	Remove	
955	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	33	5	Good	Good	Suppressed.	Remove	
956	P	Black cherry	*Prunus serotina*	Mature	2	59	6.5	Poor	Poor	Significant deadwood. decay along main stem.	Remove	
957	P	Sugar maple	*Acer saccharum*	Early Mature	1	16	4	Good	Good		Remove	
958	P	Black cherry	*Prunus serotina*	Middle Mature	1	49	5	Fair	Likely to fail	Significant decay along main stem.	Remove	
959	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	35	6.5	Good	Good	Grapevine	Remove	
960	P	Bur oak	*Quercus macrocarpa*	Early Mature	1	19	2.5	Fair	Good		Remove	
961	P	Black cherry	*Prunus serotina*	Middle Mature	1	33	7.5	Good	Good	Minor deadwood.	Remove	
962	P	Black cherry	*Prunus serotina*	Mature	1	45	3	Fair	Fair	Large deadwood and large cavity at 4m.	Remove	
963	P	Sugar maple	*Acer saccharum*	Middle Mature	1	40	7.5	Good	Good	Minor deadwood	Remove	
964	P	Black cherry	*Prunus serotina*	Middle Mature	1	29	4	Fair	Good	Deadwood throughout crown.	Remove	
965	P	Sugar maple	*Acer saccharum*	Early Mature	1	18	4	Good	Good		Remove	
966	P	Sugar maple	*Acer saccharum*	Middle Mature	1	35	7	Good	Good		Remove	
968	P	Sugar maple	*Acer saccharum*	Early Mature	1	15	4.5	Good	Good		Remove	
969	P	Sugar maple	*Acer saccharum*	Mature	1	55	7.5	Good	Fair	Bifurcation at 3m.	Remove	
970	P	American basswood	*Tilia americana*	Middle Mature	5	47	6	Good	Fair	Stem union at base of tree.	Remove	
971	P	Black cherry	*Prunus serotina*	Mature	1	45	8	Fair	Fair	Bifurcation at 2.5m with included bark. significant deadwood in crown.	Remove	
972	P	Black cherry	*Prunus serotina*	Middle Mature	1	35	3	Fair	Fair	Significant deadwood.	Remove	
973	P	Black cherry	*Prunus serotina*	Middle Mature	1	38	7	Good	Poor	significant decay at base of tree.	Remove	
974	P	Sugar maple	*Acer saccharum*	Mature	1	61	9	Good	Good		Remove	
975	P	Black cherry	*Prunus serotina*	Middle Mature	1	40	4.5	Good	Good	Grapevine.	Remove	
976	P	Black cherry	*Prunus serotina*	Middle Mature	2	43	6	Good	Fair	Stem union at base of tree.	Remove	
977	P	American elm	*Ulmus americana*	Middle Mature	1	32	6	Good	Good		Remove	
978	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	45	6.5	Good	Good		Remove	
979	P	Manitoba maple	*Acer negundo*	Middle Mature	2	41	6	Good	Poor	Stem union at base of tree. significant decay.	Remove	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
980	P	Large tooth aspen	*Populus grandidentata*	Early Mature	1	17	4	Good	Fair		Remove	
981	P	White ash	*Fraxinus americana*	Middle Mature	1	57	5.5	Fair	Fair	Bifurcation at 1.5m with significant included bark at base of tree. no visible signs of EAB.	Remove	
982	P	Large tooth aspen	*Populus grandidentata*	Middle Mature	1	21	5	Fair	Fair	Deadwood. lean to the east.	Storm Damaged	
983	P	American elm	*Ulmus americana*	Middle Mature	1	45	7.5	Good	Good		Remove	
984	P	Black cherry	*Prunus serotina*	Middle Mature	2	46	5.5	Fair	Fair	Deadwood. union at base of tree.	Remove	
985	P	American basswood	*Tilia americana*	Middle Mature	4	63	7	Good	Fair	Stem union at base of tree.	Remove	
986	P	American elm	*Ulmus americana*	Early Mature	1	17	5	Good	Good	Suppressed	Remove	
987	P	American basswood	*Tilia americana*	Middle Mature	5	57	6.5	Good	Fair	Deadwood. union at base of tree.	Remove	
988	P	American basswood	*Tilia americana*	Middle Mature	1	25	3	Good	Good		Remove	
989	P	American basswood	*Tilia americana*	Middle Mature	2	33	5	Good	Fair	Stem union at base of tree. 15 cm ironwood to west	Remove	
990	P	American basswood	*Tilia americana*	Middle Mature	1	30	4.5	Good	Good		Remove	
991	P	Eastern hop-hornbeam	*Ostrya virginiana*	Early Mature	3	24	3	Good	Good	3 trees close together.	Remove	
992	P	American basswood	*Tilia americana*	Middle Mature	4	34	4.5	Good	Fair	Stem union at base of tree.	Remove	
993	P	Eastern hop-hornbeam	*Ostrya virginiana*	Middle Mature	2	29	5.5	Good	Good		Remove	
994	P	American elm	*Ulmus americana*	Middle Mature	1	32	6	Good	Good		Remove	
995	P	American basswood	*Tilia americana*	Middle Mature	2	37	3	Fair	Fair	Deadwood throughout crown. stem union at base of tree. 20 cm ironwood growing from west side of tree.	Remove	
996	P	American basswood	*Tilia americana*	Mature	4	105	7	Fair	Fair	Deadwood throughout. fungus at base of west end.	Remove	
997	P	Black cherry	*Prunus serotina*	Early Mature	1	20	5	Good	Fair		Remove	
998	P	Black cherry	*Prunus serotina*	Middle Mature	1	45	4.5	Good	Fair	Deadwood and grapevine.	Storm Damaged	
999	P	Black cherry	*Prunus serotina*	Mature	1	75	7.5	Good	Fair	Dbh taken at root flare.	Remove	
1000	P	American elm	*Ulmus americana*	Middle Mature	1	25	4.5	Good	Good		Remove	
1001	P	Black cherry	*Prunus serotina*	Middle Mature	2	46	6.5	Good	Fair	Deadwood. stem union at base.	Remove	
1002	P	Bur oak	*Quercus macrocarpa*	Middle Mature	1	36	4	Good	Good		Remove	

P = Private, N = Neighbour, M = Municipal, S = Shared
DL = Dripline, (x) = Remove due to poor health or EAB

*Overall diameter for multi-stem trees is an aggregated
Dbh calculated as the square root of the sum of each stem squared

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
1003	P	Manitoba maple	*Acer negundo*	Mature	3	53	6	Fair	Fair	Deadwood. stem union at base of tree,.	Remove	
1004	P	Black cherry	*Prunus serotina*	Middle Mature	1	45	5	Good	Good	Minor deadwood.	Remove	
1005	P	American basswood	*Tilia americana*	Middle Mature	1	45	5.5	Good	Good		Remove	
1006	P	American basswood	*Tilia americana*	Middle Mature	2	36	4.5	Good	Fair	Stem union at base of tree.	Remove	
1007	P	Sugar maple	*Acer saccharum*	Middle Mature	1	43	5	Good	Good		Remove	
1008	P	American basswood	*Tilia americana*	Middle Mature	2	46	4	Good	Fair	Large old central dead stem between 2 live stems.	Remove	
1009	P	Black cherry	*Prunus serotina*	Mature	1	58	6.5	Good	Good		Storm Damaged	
1010	P	Eastern hop-hornbeam	*Ostrya virginiana*	Mature	1	56	6	Good	Good		Remove	
1011	P	White spruce	*Picea glauca*	Middle Mature	1	51	5	Good	Good		Storm Damaged	
1012	P	White spruce	*Picea glauca*	Mature	1	58	5	Good	Good		Storm Damaged	
1013	P	American beech	*Fagusgrandifolia*	Post Mature	1	96	7	Poor	Poor	Dead central leader and significant deadwood throughout crown. Tree is in a state of retrenchment.	Remove	
1014	P	Manitoba maple	*Acer negundo*	Early Mature	1	17	4	Good	Fair	Dbh taken at root flare.	Remove	
1015	P	Apple	*Malus* spp.	Mature	1	40	4	Fair	Fair	Dbh taken at root flare.	Remove	
1016	P	Eastern hop-hornbeam	*Ostrya virginiana*	Middle Mature	1	22	4	Good	Good		Remove	
1017	P	Black cherry	*Prunus serotina*	Middle Mature	1	24	4	Good	Good		Remove	
1018	P	Sugar maple	*Acer saccharum*	Post Mature	1	73	8	Fair	Fair	Significant basal decay. Tree is in a state of retrenchment.	Storm Damaged	
1019	P	Sugar maple	*Acer saccharum*	Post Mature	1	122	9.5	Good	Fair	Tree is in a state of retrenchment.	Storm Damaged	
1020	N	Common hawthorn	*Crataegus monogyna*	Mature	1	40	3	Good	Good	Dbh taken at root flare.	Preserve	3
1021	P	Sugar maple	*Acer saccharum*	Post Mature	1	91	10	Good	Good	Tree is in a state of retrenchment.	Remove	
1022	P	Sugar maple	*Acer saccharum*	Middle Mature	1	49	7	Good	Good		Remove	
1023	P	American basswood	*Tilia americana*	Middle Mature	3	73	7	Good	Fair	Large cavity and decay in large central stem.	Remove	
1024	P	American elm	*Ulmus americana*	Middle Mature	1	29	4.5	Good	Good	Minor deadwood.	Remove	
1025	P	Black cherry	*Prunus serotina*	Middle Mature	1	60	6.5	Good	Fair	Dbh taken at root flare. 22cm basswood and 20cm Manitoba maple growing from base of tree.	Remove	
1026	P	American basswood	*Tilia americana*	Early Mature	1	23	2.5	Good	Fair	Partially occluded wound main stem.	Remove	

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
1027	P	Sugar maple	*Acer saccharum*	Middle Mature	2	60	6	Good	Fair	Dbh taken at root flare. Stem union at 1m with included bark.	Remove	
1028	P	American basswood	*Tilia americana*	Middle Mature	3	56	5.5	Good	Fair	Stem union at base of tree.	Remove	
1029	P	American basswood	*Tilia americana*	Mature	5	90	7	Good	Fair	Stem union at base of tree.	Remove	
1030	P	Sugar maple	*Acer saccharum*	Early Mature	1	19	3	Good	Good		Remove	
1031	P	Black cherry	*Prunus serotina*	Middle Mature	1	35	5.5	Good	Fair	Bifurcation at 1.5m.	Storm Damaged	
1032	P	Eastern hop-hornbeam	*Ostrya virginiana*	Middle Mature	2	19	3	Good	Fair		Remove	
1033	P	American basswood	*Tilia americana*	Middle Mature	2	28	3.5	Good	Fair	Grapevine	Remove	
1034	P	Black cherry	*Prunus serotina*	Middle Mature	3	60	7	Good	Fair	Stem union at .5m	Remove	
1035	P	Apple	*Malus* spp.	Post Mature	1	63	5	Fair	Fair	Dbh taken at root flare.	Remove	
1036	P	American basswood	*Tilia americana*	Middle Mature	2	30	4	Good	Fair	Stem union is at base of tree.	Remove	
1037	P	American basswood	*Tilia americana*	Middle Mature	9	54	5	Good	Fair	Stem union at base of tree	Remove	
1038	S	American basswood	*Tilia americana*	Middle Mature	4	69	3	Good	Likely to fail	Central stem is the only live stem.	Remove	
1039	P	Eastern hop-hornbeam	*Ostrya virginiana*	Early Mature	1	15	3	Good	Good		Remove	
1040	S	Eastern hop-hornbeam	*Ostrya virginiana*	Middle Mature	2	32	3	Good	Fair	Basal cavity and decay.	Remove	
1041	N	American basswood	*Tilia americana*	Middle Mature	6	31	3	Good	Fair	Stem union at base.	Remove	
1042	P	American basswood	*Tilia americana*	Early Mature	2	18	3	Good	Good		Remove	
1043	N	American basswood	*Tilia americana*	Middle Mature	4	52	3.5	Fair	Poor	Significant decay along large stem.	Preserve	3.6
1044	N	Bur oak	*Quercus macrocarpa*	Middle Mature	1	33	2.5	Good	Fair	Dbh taken at root flare. Bifurcation at 1.5m.	Preserve	2.4
1045	N	Manitoba maple	*Acer negundo*	Early Mature	2	25	5	Good	Fair		Preserve	1.8
1046	N	Manitoba maple	*Acer negundo*	Middle Mature	3	56	6	Good	Fair	Lean to the east.	Storm Damaged	
1047	P	Manitoba maple	*Acer negundo*	Middle Mature	2	49	3.5	Poor	Poor	Tree is in decline.	Storm Damaged	
1048	P	Black cherry	*Prunus serotina*	Middle Mature	1	30	3.5	Good	Good		Remove	

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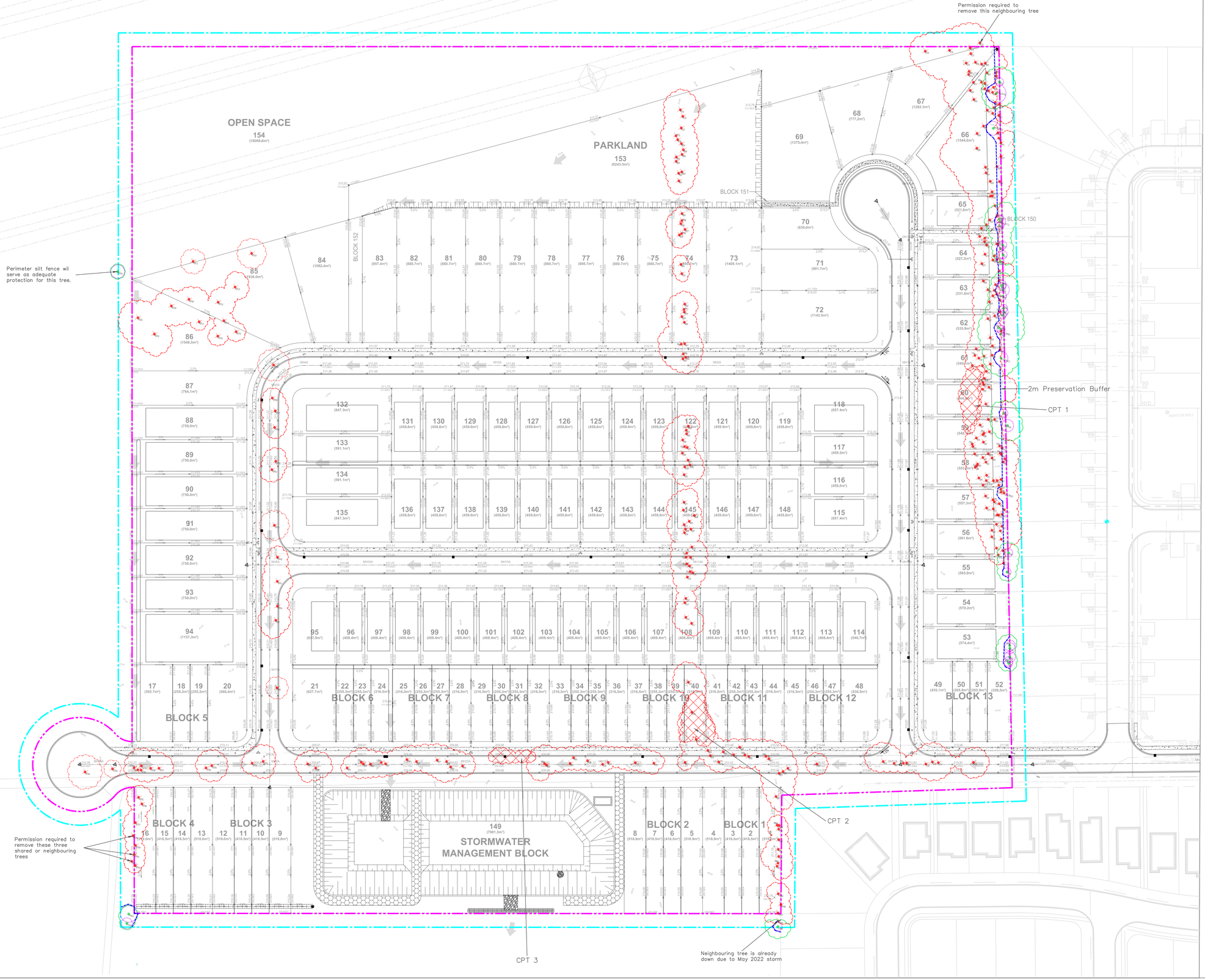
*Overall diameter for multi-stem trees is an aggregated
Dbh calculated as the square root of the sum of each stem squared

Tree #	Owner	Species	*Botanical Name*	Age	# of Stems	Tree Dbh* (cm)	Crown Radius (m)	Physiological Condition	Structural Condition	Comments	Status	Minimum TPZ (m)
1049	P	Manitoba maple	*Acer negundo*	Middle Mature	2	27	4.5	Good	Poor	West stem is dead.	Remove	
CPT 1	P	Large tooth aspen	*Populus grandidentata*	*Early Mature*	25	15 avg	varies	Good	Fair		Remove	
CPT 2	P	Large tooth aspen	*Populus grandidentata*	*Early Mature*	25	15 avg	varies	Good	Fair	Majority of compartment destroyed by storm	Storm Damaged	
CPT 3	P	Large tooth aspen	*Populus grandidentata*	*Early Mature*	7	15 avg	varies	Good	Fair		Remove	

Appendix B

Tree Inventory & Protection Plan



Retained tree requiring protection

933 — Crown spread and optimal tree protection distance

Industry standard minimum tree protection distance

989 — Tree to be removed to accommodate development

Woodland area of trees to be retained

Small compartment of trees to be removed to accommodate development

Tree protective fencing

Development site boundary

Tree inventory and protection limit

ROOTED IN EXCELLENCE
treescape
CERTIFIED ARBORISTS

CLIENT
Justin Cogan
DPH Developments Inc.
2345 Yonge Street
Toronto, ON

SHEET
Tree Inventory & Protection Plan

PROJECT
TC348_Ptbo Homes-Norwood PH4 _TIPP

REVIEWED

DRAWN
AWS

DATE
May 4, 2022

SCALE
1:750 (ARCH D)

SHEET
TIPP-01

1 General Tree Preservation Notes

Before Construction

- Prior to any construction work (including approved tree works), establishment of storage compounds, site offices, latrines, contractor parking or storage of any materials; TPZ fencing should be installed as detailed in TIPP-01. In the event that TPZ fencing interferes with any of the above-mentioned works, provisions should be made allowing supervised access to these areas by the attending arborist.
- All approved tree works shall be undertaken in accord with the recommendations detailed in both the tree inventory and development impact summary in accord with current ISA Best Management Practice –Tree Pruning (companion publication to ANSI standard A300 Part 1 (2008) Tree, Shrub and other Woody Plant Management –Standard Practices, Pruning).
- Prior to site disturbance the landowner must confirm that no migratory birds are making use of the site for nesting. Common Nesting periods extend from April 1st to September 30th for most birds in Southern Ontario. Large scale tree removals are prohibited during this period. Nesting can occur at other times as well. Should tree removal during bird nesting season be unavoidable the Developer is required to obtain a nesting survey. Nesting survey should be undertaken by an ecologist or registered professional biologist immediately prior to any site alteration to ensure no active nests are present.
- All trees identified for retention within the inventory schedule shall be protected using the recommended tree protection methods. Tree protection barriers installed in the locations identified on the appended Tree Inventory and Protection Plan create tree protection zones which are subject to revision as required by final design.
- The Tree Protection Zone (TPZ) is the minimum setback required to maintain the structural integrity of the tree's anchor roots, based on generally accepted arboricultural practices. If trees are protected to the TPZ then the tree's anchor root structure is expected to be maintained. No unauthorized activities may take place within the TPZ of a tree scheduled for preservation. The following chart shows the recommended TPZ based on the diameter of the tree being preserved. Some trees and site conditions may require a greater setback at the discretion of the governing authority[1].

Diameter of Trunk (Dbh)[2] (in centimetres)	**Optimal Tree Protection Zone**	**Minimum Tree Protection Zone**[4] (Distance from trunk measured in metres)
<10 cm	Drip line[3] + 1.5m for all Dbh categories	1.2 m
10-29 cm		1.8 m
30-40 cm		2.4 m
41-50 cm		3.0 m
51-60 cm		3.6 m
61-70 cm		4.2 m
71-80 cm		4.8 m
81-90 cm		5.4 m
91-100 cm		6.0 m
>100 cm		6 cm protection for each 1 cm Dbh

Table 1: Minimum Tree Protection Zone (TPZ) Determination

[1] Roots can extend from the trunk to 2-3 times the distance of the drip line.
[2] Diameter at breast height (DBH) measurement of tree trunk taken at 1.37 metres above ground.
[3] The drip line is defined as the area beneath the outer most branch tips of a tree
[4] Tree Protection Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work

- It is recommended that barriers for tree protection be constructed of plastic construction fencing and secured to T-bars (driven into the ground) and a wooden 2"x 4" top rail. The gauge of wire and number of ties used to secure the fencing should be sufficient to hold fence in place for the duration of the work. Refer to detail #2 on drawing TIPP-02 for specifics. In all cases, tree protection fencing should meet or exceed any local ordinances that may be in effect.
- Sediment fencing to be installed in close proximity to the critical root zone of a protected tree shall be constructed as per detail #4 shown on TIPP-02.
- All sections of tree protection fencing should be clearly marked with signs stating that the area within is a Tree Protection Zone and that no one is allowed to disturb this area. Signs should contain contact information for the contractor and/or the Arborist and clearly state any consequences that are associated with violations. Text on the signs should be in all languages commonly spoken on the site. Refer to detail #3 on drawing TIPP-02 for an example.
- No construction activities including grade changes, surface treatments or excavation of any kind are permitted within the area identified on the Tree Protection Plan or Site Plan as a minimum tree protection zone (TPZ). No root cutting is permitted. No storage of materials or fill is permitted within the TPZ. No movement or storage of vehicles or equipment is permitted within the TPZ. The area(s) identified as a TPZ must be protected and remain undisturbed at all times.
- If the minimum tree protection zone (TPZ) must be reduced to facilitate construction access, the tree protection barriers must be maintained at a lesser distance and the exposed portion of TPZ must be protected using a horizontal root protection method approved by a certified arborist.
- All pruning of tree roots and branches must be completed by a certified arborist and in accordance with good arboricultural practice. Roots that must be pruned within a prescribed TPZ must first be exposed using pneumatic (air) excavation, by hand digging or by using low pressure hydraulic (water) excavation. The water pressure for hydraulic excavation must be low enough that root bark is not damaged or removed. This will allow a proper pruning cut and minimize tearing of the roots.
- A TPZ barrier is not required where an existing fence serves the same purpose. At such locations, the barrier shall terminate at the existing fence so that a continuous barricade is provided between the trees and the area of work. It is recommended that the existing fence be augmented with silt fencing for added protection.
- The barriers shall be maintained erect and in good repair throughout the duration of construction operations without breaks and unsupported sections and shall be removed upon completion of the work.

During Construction

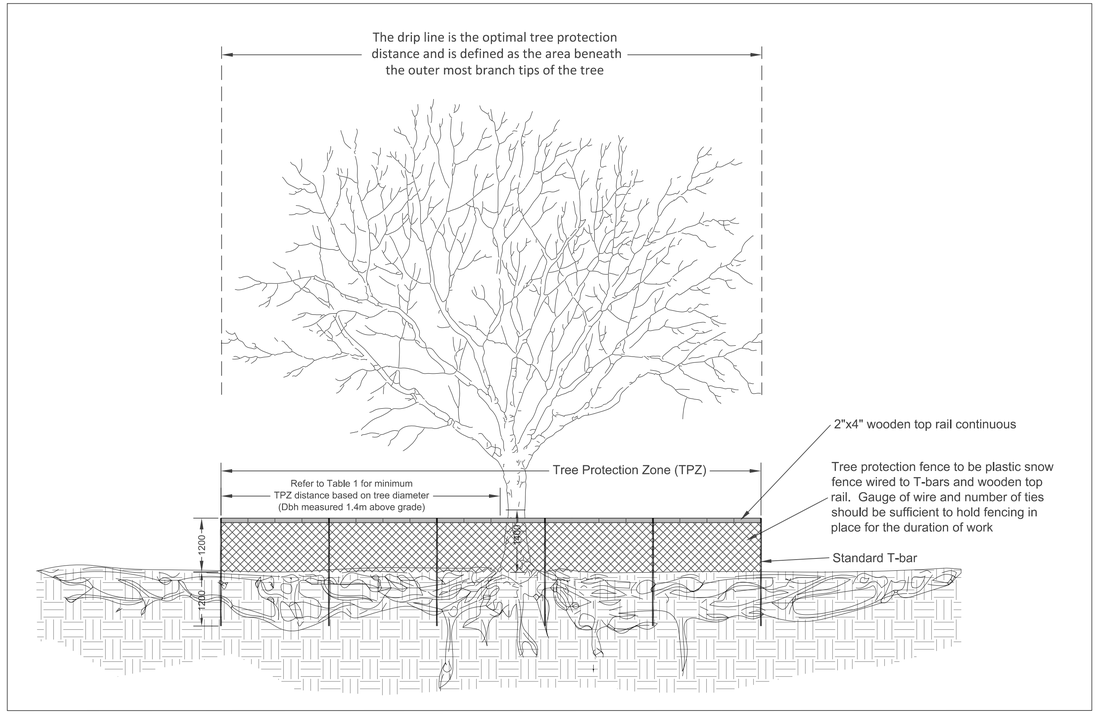
Throughout the construction an ISA Certified Arborist should be retained for the following:

- Supervise site clearing and grubbing operations to ensure that the correct trees are removed and that the trees (and their roots) scheduled for preservation are being respected.
- Supervise silt fence installation to ensure that roots of trees scheduled for preservation are respected.
- Supervise the installation of all tree protection barriers to ensure the fencing is installed in the correct location and to the proper specifications.
- Monitor the Tree Protection Zone (TPZ) barriers and TPZ signage.
- Advise on and oversee any site activities where construction impacts upon retained trees.
- Advise on root severance and pruning.
- Advise on tree damage caused by, or occurring during construction, including storm events, and specify and detail remediation methods.
- Advise on location of boring and excavation methods in the root zone of trees where appropriate.
- Advise on grade changes within the critical root zone of trees.
- Monitor tree health and advise on cultural requirement of trees during construction.
- Advise on any unforeseen changes to construction that are likely to be detrimental to retained trees.
- Supervise the removal/dismantling of all the approved tree protection systems at the completion of construction.

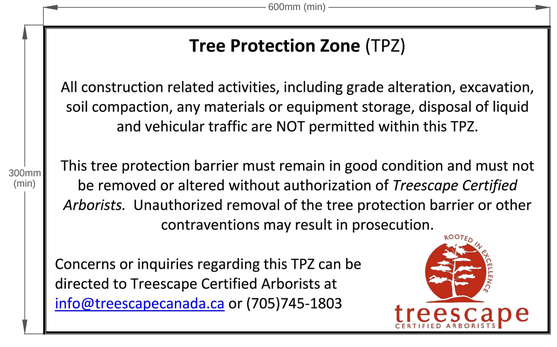
Post-Construction Care

Following the completion of construction and the removal of all tree protection, the Arborist should re-inspect all retained trees and assess their current health and vitality. The Arborist will advise on the requirement for any post-construction care such as irrigation, deep-root fertilizing and de-compaction, as appropriate to ensure the continued health and sustainability of the retained trees.

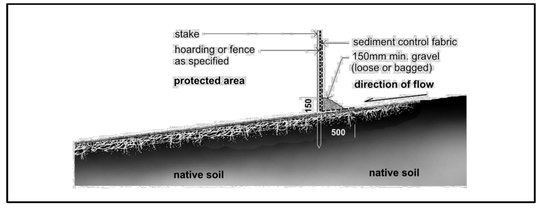
2 Tree Protection Fencing



3 Tree Protection Signage



4 Sediment Control Barriers (in close proximity to critical root zones)



ROOTED IN EXCELLENCE
treescape
CERTIFIED ARBORISTS

CLIENT
Justin Cogan
DPH Developments Inc.
2345 Yonge Street
Toronto, ON

SHEET
Tree Protection Detail

PROJECT
TC348_Ptbo Homes-Norwood PH4 _TIPP

REVIEWED

DRAWN
AWS

DATE
May 4, 2022

SCALE
DO NOT SCALE

SHEET
TIPP-02