BEACON ENVIRONMENTAL

GUIDING SOLUTIONS IN THE NATURAL ENVIRONMENT

Arborist Report
Tawny Ridge Estates — Phase 2
Niagara-on-the-Lake, ON

Prepared For:

St. David's Riverview Estates

Prepared By:

Beacon Environmental Limited

Date: **October 2022**

Project: **222339**

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1. Introduction

Beacon Environmental Limited (Beacon) was retained by St. David's Riverview Estates to complete an Arborist Report in support of Phase 2 of the proposed Tawny Ridge Estates residential development located at 192 and 184 Tanbark Avenue and "0" Warner Road in the Town of Niagara-on-the-Lake, hereafter referred to as the subject property (**Figure 1**).

The purpose of this report is to a) provide an inventory and description of trees within and adjacent to the proposed development, and b) provide recommendations for tree preservation or removal based on tree health and condition and potential for integration within the proposed development based on consideration of the development design and associated grading and servicing requirements.

The Town of Niagara-on-the-Lake has a private tree by-law (No. 5139-19) under which the destruction of trees on private property are regulated; however, the by-law does not apply to activities described in subsection 135(12) of the *Municipal Act*, which includes:

> *The injuring or destruction of trees imposed after December 31, 2002 as a condition to the approval of a site plan, a plan of subdivision or a consent under section 41, 51 or 53, respectively, of the Planning Act or as a requirement of a site plan agreement or subdivision agreement entered into under those sections*.

Based on this exemption, it is Beacon's understanding that the proposed development is not subject to the by-law. However, this by-law does provide guidance for conducting tree inventories which Beacon has relied upon for this assignment. In addition, this Arborist Report has been prepared in accordance with accepted arboricultural guidelines, standards and practices consistent with the Arborists' Certification Study Guide (Lilly 2001).

2. Methodology

Trees occurring within and adjacent to the subject property were inventoried and assessed on September 22 and 23, 2022, by a Beacon arborist certified by the International Society of Arboriculture (ISA).

Individual trees with stem diameters of 12.5 cm or greater measured at breast height approximately 1.4 metres (m) from the ground surface (DBH) were marked with numbered metal forestry tags and assessed. Trees located on adjacent private property were not tagged.

Information collected from individual trees included: species, trunk diameter (DBH), crown radius and condition. The diameters of multi-stemmed trees were determined by taking the square root of the sum of squares of each stem's DBH ("Aggregate DBH"). The condition of each tree was assessed for overall health and structural integrity based on indicators such as live buds and leaves, dead wood, decay, structural defects, and presence of disease. Each tree was assigned a condition rating of good, fair, poor, or dead, based on the following criteria:

- **Poor** – Severe dieback, significant lean, missing leader, major defects, significant decay and/or disease presence. Including hazardous trees and trees in terminal decline;
- **Fair** – Moderate dieback and/or lean, limb defects, multiple stems, moderate foliage damage from stress;
- **Good** – Healthy vigorous growth, minor visible defects or damage; or
- **Dead** – No live crown (epicormic growth may be present).

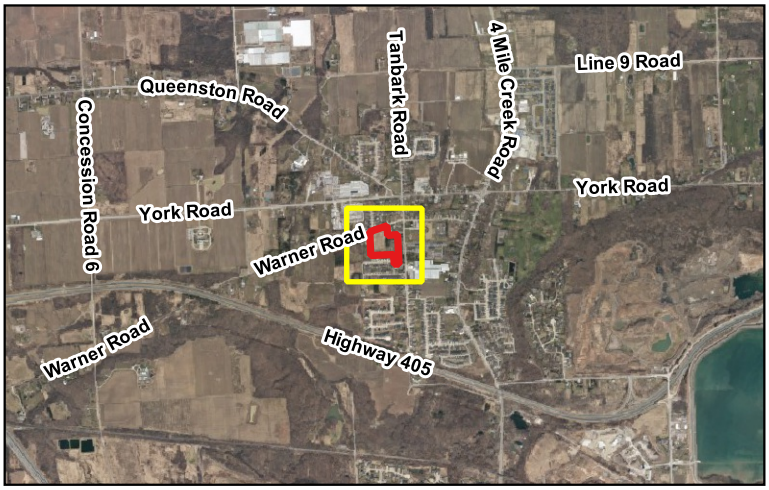
"Fruit Trees" and "Weed Trees", as defined under the Town's Private Tree By-law, were not tagged or individually assessed, but were tallied and mapped as groupings.

The locations of individual trees were determined using a survey-grade Arrow Gold RTK GNSS Receiver and incorporated into Geographical Information Systems (GIS) and AutoCAD platforms for mapping.

Limitations of the tree assessment are detailed in **Appendix A**.

3. Results

A total of 206 individual trees were inventoried and assessed within and adjacent to the subject property. An additional 143 "Fruit Trees" or "Weed Trees" >12.5 cm DBH were tallied as summarized in **Table 1**. The locations of individual trees and groupings are illustrated in **Drawings TP1-TP3** (**Appendix C)**. Tree numbers on **Drawings TP-1 to TP-4** indicate the tag numbers that were applied to the trees; trees on adjacent private properties labeled with the prefix "N" were not tagged.



Site Location	Figure 1
Tawny Ridge Estates TIPP	
BEACON ENVIRONMENTAL	Project: Last Revised: September 2022
Client:	Prepared by: BD Checked by: JS
N 1:2,700	Inset Map: 1:50,000

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Table 1. Summary of Fruit Trees and Weed Trees

Grouping	Species (Scientific Name)	Species (Common Name)	Approximate diameter(s) (cm)	Qty
A1	*Acer negundo*	Manitoba Maple	25	3
	Malus pumila	Apple	15 – 20	11
	Prunus persica	Peach	15	4
A2	*Acer negundo*	Manitoba Maple	15 – 30	13
	Acer platanoides	Norway Maple	15 – 30	2
	Malus pumila	Apple	15 – 30	23
A3	*Acer negundo*	Manitoba Maple	15 – 30	1
	Acer platanoides	Norway Maple	15 – 30	1 (tag 57 from phase 1 inventory)
	Malus pumila	Apple	15 – 30	12 (includes tags 52, 60, and 61 from phase 1 inventory)
A4	*Acer platanoides*	Norway Maple	15 – 30	4
	Malus pumila	Apple	15 – 30	4
	Rhamnus cathartica	European Buckthorn	20	1
A5	*Acer negundo*	Manitoba Maple	15 – 30	4
	Malus pumila	Apple	15 – 30	12
	Morus alba	White Mulberry	20	2
	Prunus avium	Sweet Cherry	15 – 30	3
	Pyrus communis	Pear	15 – 30	4
	Rhamnus cathartica	European Buckthorn	20	4
A6	*Acer negundo*	Manitoba Maple	15 – 30	1
	Acer platanoides	Norway Maple	12 – 36	12
	Malus pumila	Apple	15 – 30	2
	Prunus avium	Sweet Cherry	15 – 30	3
	Rhamnus cathartica	European Buckthorn	20	1
A7	*Morus alba*	White Mulberry	12	2
	Prunus avium	Sweet Cherry	30	1
	Populus deltoides	Eastern Cottonwood	42	1
A8	*Pyrus communis*	Pear	15	9
	Rhamnus cathartica	European Buckthorn	20	2
	Ulmus pumila	Siberian Elm	20	1

Of the 206 individually inventoried trees, three (3) are located on the adjacent property at 687 Warner Road and one tree (230) is located on the property line 717 Warner Road. A detailed summary of the trees is provided the tree inventory tables in **Appendix B**. A general summary of tree species and abundance is presented in **Table 2**.

Table 2. Existing Tree Species and Quantity

Scientific Name	Common Name	Quantity
Pinus nigra	Austrian Pine	41
Thuja occidentalis	Eastern White Cedar	38
Picea abies	Norway Spruce	27
Juglans nigra	Black Walnut	17
Acer saccharinum	Silver Maple	14
Picea pungens	Blue Spruce	12
Picea glauca	White Spruce	11
Pinus strobus	Eastern White Pine	10
Pinus sylvestris	Scots Pine	6
Gleditsia triacanthos	Honey Locust	6
Carya ovata	Shagbark Hickory	5
Fraxinus americana	White Ash	5
Juglans regia	English Walnut	2
Quercus rubra	Northern Red Oak	2
Quercus palustris	Swamp Pin Oak	1
Tilia americana	Basswood	1
Acer platanoides	Norway Maple	1
Aesculus glabra	Ohio Buckeye	1
Acer saccharum	Sugar Maple	1
Betula papyrifera	Paper Birch	1
Abies balsamifera	Balsam Fir	1
Syringa reticulata	Japanese Tree Lilac	1
Acer negundo	Manitoba Maple	1
Catalpa speciosa	Northern Catalpa	1

No rare, special concern, threatened or endangered, including Butternut (*Juglans cinerea*), were encountered on or adjacent to the study area during the tree inventory.

4. Impact Assessment and Recommendations

A residential subdivision is proposed for the subject property. At this time, Beacon has not been provided with detailed grading plan or servicing plans. The following sections provide recommendations for tree removal and preservation based on the draft plan of subdivision The recommendations should be reviewed and updated when more detailed plans become available.

4.1 Trees Recommended for Removal

Based on the draft plan of subdivision, 346 trees ≥12.5 cm DBH are identified for removal as they are located within or immediately adjacent to the proposed development or are in poor condition.

Of the 346 trees proposed for removal, 88 are Fruit Trees (in areas A1 through A8), 55 are Weed Trees (tree 241, 242, and in areas A1 through A8). Two (2) trees are proposed for removal due to poor condition (e.g., declining White Ash due to Emerald Ash Borer [*Agrilus planipennis*] infestation).

Tree 230 is a mature Red Oak (*Quercus rubra*) located on or in very close proximity to the property line. If any part of the trunk crosses the property line, then the tree is legally the property of both landowners. Removal of boundary trees will require written permission from the adjacent landowners. The determination of ownership is the responsibility of the landowners(s).

4.2 Tree Recommended for Preservation

The three trees located on the adjacent property at 687 Warner Road (N1, N2, and N3) are proposed for preservation. These trees shall by pruned over the Subject Property, as required, in accordance with Arboricultural Best Management Practices, and a Tree Protection Zone shall be established.

5. Tree Preservation and Construction Specifications

There is potential for damage to occur to trees during construction if proper precautions and protection measures are not implemented in advance. Trees can be negatively impacted through grade changes, soil compaction, root cutting, and mechanical damage to trunks and branches resulting from the operation of construction equipment.

The following recommendations are provided to mitigate potential construction-related impacts.

Trees to be retained are to be protected through the establishment of a minimum tree protection zone (TPZ) as per **Table 1** and illustrated in **Figure TP-1**.

Table 3. Minimum Tree Protection Zone

Trunk Diameter (DBH)	Minimum Protection Distances[1]
10 – 30 cm	2.4 m
31 – 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

[1]to be measured from the outside edge of the base of the tree

Within the identified TPZ's there should be:

- No construction;
- No altering of grade by adding fill, excavating, trenching, scraping, or dumping;
- No storage of construction materials, equipment, soil, or waste/debris;

- No disposal of any liquids e.g. gas, oil, paint;
- No movement of vehicles, equipment, or pedestrians; and
- No parking of vehicles or machinery.

It is recommended that these trees be protected by installing tree protection hoarding at the limit of the development as illustrated in **Figure TP-1**. Hoarding shall consist of 1.2 m high plastic mesh affixed to paige wire fencing supported by metal t-bar posts spaced a minimum of 2.4 m apart, with a top 2x4 wood rail for additional support as illustrated in **Figure TP-1**. Erosion and sediment control fencing may double as tree protection fencing.

6. Other Recommendations

6.1 Timing of Tree Removal

The federal *Migratory Bird Convention Act* (1994) protects the nests, eggs and young of most bird species from harm or destruction. Environment Canada considers the 'general nesting period' of breeding birds in southern Ontario to be between late March and the end of August. This includes times at the beginning and end of the season when only a few species might be nesting. It is recommended that during the peak period of bird nesting, no vegetation clearing or disturbance to nesting bird habitat occur (between mid-May and mid-July). In the 'shoulder' seasons of April 1 to May 15, and July 16 to August 31, vegetation clearing could occur, but only after an ecologist with appropriate avian knowledge has surveyed the area to confirm absence of any nesting birds. If bird nesting is found, then vegetation clearing (in an area around the nest) must be postponed until nest activity has concluded. Likelihood of nesting birds being present in the 'shoulder' seasons also depends on the habitat type. From September 1 through to March 31, of any year, vegetation clearing can occur without nest surveys, but the law for nest protection still holds (i.e., if a nest is known it should be protected).

6.2 Tree Disposal

Trees shall be disposed of in accordance with Canadian Food Inspection Agency (CFIA) regulations, as amended from time to time. As such, disposal of Ash (*Fraxinus*) trees — all of which are assumed to be infested with the pest Emerald Ash Borer (*Agrilus planipennis*) — shall be in accordance with Town of Niagara-on-the-Lake and/or CFIA requirements.

Woody material may be chipped and used as mulch for on-site tree plantings.

6.3 Tree Replacement

Requirements for tree replacement should be determined in consultation with Town.

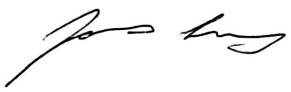
7. Summary

Beacon was retained by St. David's Riverview Estates to complete an Arborist Report in support of a proposed Tawny Ridge Estates Phase 2 development, in St. David's, Niagara-on-the-Lake.

A total of 349 trees ≥12.5 cm DBH were inventoried or tallied within or adjacent to the draft plan, of which 145 are "Fruit Trees" or "Weed Trees" (as defined by the Town). Of the inventoried trees, 346 are identified for removal due to poor condition or to accommodate the proposed works. Three trees located on adjacent private property have been identified for preservation and should be protected by implementing standard arboricultural best management practices recommended in this report.

The recommendations of this report are preliminary and should be reviewed and updated as necessary when detailed designs and grading plans are available.

Reviewed by:
Beacon Environmental



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8. References

Town of Niagara-on-the-Lake. 2019.
A By-law to Regulate the Destruction of Injuring of Trees on Private Property in the Urban Areas of the Municipality. By-law number 5139-19.

Government of Canada. 1994.
Migratory Birds Convention Act, 1994 (S.C. 1994, c.22).

Lilly, Sharon J. 2001.
Arborists' Certification Study Guide. International Society of Arboriculture, Champaign, Illinois.

Appendix A

Limitations of Tree Assessment

Appendix A

Limitations of Tree Assessment

It is the policy of Beacon Environmental Limited to attach the following clause regarding limitations of the tree assessment. The intent is to ensure that the client is aware of what is technically and professionally realistic in assessing and/or retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These techniques include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack, crown dieback, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of property and people. Except where specifically noted in the report, none of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms and their health and vigour constantly change over time. They are not immune to changes in site conditions, pests, or variations in the weather conditions including severe storms with high-speed winds. Furthermore, some symptoms may only be visible seasonally; the extent of observations that can be made may be limited by the time of year in which the inspection took place.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy unless stated otherwise within the report, no warranty or guarantees are offered, or implied, that these trees, or any parts of them, will have continued health or structure as noted in the report. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or group of trees or their component parts in all circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure if provided with the necessary combinations of stresses and elements. This risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, it is recommended that trees be re-assessed periodically to identify changes in condition. Design or site plan changes may also necessitate re-assessment and/or revisions to this report. **The assessment presented in this report is valid at the time of the inspection and is intended for sole use of the client.** Any use of this report by a third party, and any decision based on this report, is the singular responsibility of the third party.

Appendix B

Tree Inventory Table

Appendix B

Evaluation of Trees ≥12.5 cm DBH (not including Weed Trees or Fruit Trees)

Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition[1]	Comment(s)	Tree Protection Zone Radius (m)	Recommendation
210	Norway Spruce	*Picea abies*	28	6	Good	Good form and vigour	—	Remove
211	Sugar Maple	*Acer saccharum*	Approx. 28	6	Fair-Good	Good vigour. Some unions with poor structure	—	Remove
212	Norway Spruce	*Picea abies*	42	7	Good	Good form and vigour	—	Remove
213	Austrian Pine	*Pinus nigra*	13	2	Good	Good form and vigour	—	Remove
214	Norway Spruce	*Picea abies*	33	8	Good	Good form and vigour	—	Remove
215	Norway Spruce	*Picea abies*	33	8	Good	Good form and vigour	—	Remove
216	Norway Spruce	*Picea abies*	34	8	Good	Good form and vigour	—	Remove
217	Austrian Pine	*Pinus nigra*	12.6	4	Good	Good form and vigour	—	Remove
218	Austrian Pine	*Pinus nigra*	14	4	Good	Good form and vigour	—	Remove
219	Austrian Pine	*Pinus nigra*	13	3	Good	Good form and vigour	—	Remove
220	Austrian Pine	*Pinus nigra*	12.5	4	Good	Good form and vigour	—	Remove
221	Norway Spruce	*Picea abies*	21	6	Good	Good form and vigour	—	Remove
222	Norway Spruce	*Picea abies*	32	8	Good	Good form and vigour	—	Remove
223	Norway Spruce	*Picea abies*	31	8	Good	Good form and vigour	—	Remove
224	Austrian Pine	*Pinus nigra*	13.5	4	Good	Good form and vigour	—	Remove
225	Norway Spruce	*Picea abies*	34	8	Good	Good form and vigour	—	Remove
226	Austrian Pine	*Pinus nigra*	37	8	Good	Good form and vigour	—	Remove
227	Norway Spruce	*Picea abies*	42	8	Good	Good form and vigour	—	Remove
228	Blue Spruce	*Picea pungens*	18	4	Fair	Good form. Distal leaves yellowing throughout crown; approx 50%	—	Remove
229	Austrian Pine	*Pinus nigra*	43	8	Good	Good form and vigour	—	Remove
230	Northern Red Oak	*Quercus rubra*	Approx. 60	10	Good	Good form and vigour. Possible boundary tree	—	Remove
231	White Ash	*Fraxinus americana*	28	6	Poor	Most of crown dead. Only lower crown and epicormics remain living at time of survey	—	Remove
232	Blue Spruce	*Picea pungens*	18	4	Good	Good form and vigour	—	Remove
233	Norway Spruce	*Picea abies*	24	6	Good	Good form and vigour	—	Remove
234	White Spruce	*Picea glauca*	30	6	Good	Good form and vigour	—	Remove
235	Blue Spruce	*Picea pungens*	30	6	Good	Good form and vigour	—	Remove
236	White Spruce	*Picea glauca*	16	2	Fair	Entwined at base and growing into adjacent tree	—	Remove
237	Northern Red Oak	*Quercus rubra*	18	4	Fair	Entwined at base and growing into adjacent tree	—	Remove
238	Scots Pine	*Pinus sylvestris*	36	8	Fair-Good	Good vigour, fair form	—	Remove
239	Austrian Pine	*Pinus nigra*	32	6	Poor-Fair	Lower canopy dead from diplodia	—	Remove
240	Eastern White Cedar	*Thuja occidentalis*	16, 16, 15 [27.1]	6	Fair	Good vigour. Forks at base	—	Remove
241	Manitoba Maple	*Acer negundo*	19	10	Fair	Good vigour. Strong lean	—	Remove
242	Norway Maple	*Acer platanoides*	21	6	Fair-Good	—	—	Remove
243	White Spruce	*Picea glauca*	26	6	Good	Good form and vigour	—	Remove
244	Austrian Pine	*Pinus nigra*	32	4	Poor-Fair	Thin crown, diplodia	—	Remove
245	Austrian Pine	*Pinus nigra*	40	7	Fair	Good vigour. Codominant leaders in upper crown	—	Remove
246	Austrian Pine	*Pinus nigra*	38	8	Fair	Thinning crown and codominant leaders	—	Remove
247	Austrian Pine	*Pinus nigra*	35	8	Fair-Good	—	—	Remove
248	Austrian Pine	*Pinus nigra*	52 @ 0.1 m	8	Fair-Good	—	—	Remove
249	Norway Spruce	*Picea abies*	36	6	Good	—	—	Remove
250	Norway Spruce	*Picea abies*	32	6	Good	—	—	Remove
251	Norway Spruce	*Picea abies*	44	8	Good	—	—	Remove

Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition[1]	Comment(s)	Tree Protection Zone Radius (m)	Recommendation
252	Austrian Pine	*Pinus nigra*	27	8	Fair	Some Diplodia	—	Remove
253	Austrian Pine	*Pinus nigra*	31	4	Fair	Some Diplodia and moderately weak unions	—	Remove
254	Scots Pine	*Pinus sylvestris*	34	6	Fair-Good	Some thinning	—	Remove
255	Blue Spruce	*Picea pungens*	44 @ 0.3 m	8	Fair	Low fork	—	Remove
256	Norway Spruce	*Picea abies*	16	4	Good	—	—	Remove
257	Norway Spruce	*Picea abies*	44	8	Good	—	—	Remove
258	Scots Pine	*Pinus sylvestris*	43	6	Fair	Low fork	—	Remove
259	Norway Spruce	*Picea abies*	14	4	Good	—	—	Remove
260	Scots Pine	*Pinus sylvestris*	32	6	Fair	Crown thinning and codominant leaders	—	Remove
261	Scots Pine	*Pinus sylvestris*	30	4	Fair	Crown thinning	—	Remove
262	Austrian Pine	*Pinus nigra*	18	2	Good	—	—	Remove
263	Eastern White Pine	*Pinus strobus*	39	6	Good	—	—	Remove
264	Austrian Pine	*Pinus nigra*	28	6	Good	—	—	Remove
265	White Spruce	*Picea glauca*	29	6	Good	—	—	Remove
266	Austrian Pine	*Pinus nigra*	30	6	Good	—	—	Remove
267	Norway Spruce	*Picea abies*	31	6	Good	—	—	Remove
269	Austrian Pine	*Pinus nigra*	35	6	Fair	Some codominant leaders	—	Remove
270	Blue Spruce	*Picea pungens*	16	3	Good	—	—	Remove
271	Austrian Pine	*Pinus nigra*	28	8	Fair	Codominant leaders	—	Remove
272	Austrian Pine	*Pinus nigra*	39	8	Good	—	—	Remove
273	White Spruce	*Picea glauca*	30	4	Good	—	—	Remove
274	White Spruce	*Picea glauca*	28	6	Good	—	—	Remove
275	Austrian Pine	*Pinus nigra*	42	10	Fair	Open crown with many moderately weak limbs	—	Remove
276	White Spruce	*Picea glauca*	23	6	Good	—	—	Remove
277	Norway Spruce	*Picea abies*	27	6	Good	—	—	Remove
278	Blue Spruce	*Picea pungens*	30	6	Good	—	—	Remove
279	Norway Spruce	*Picea abies*	22	4	Fair-Good	Minor weak union	—	Remove
280	Black Walnut	*Juglans nigra*	17	4	Good	—	—	Remove
281	Blue Spruce	*Picea pungens*	28	6	Good	—	—	Remove
282	Blue Spruce	*Picea pungens*	28	6	Good	—	—	Remove
283	Swamp Pin Oak	*Quercus palustris*	61	14	Fair-Good	Some nodes with many branches	—	Remove
284	Black Walnut	*Juglans nigra*	13	4	Fair-Good	Some lean in upper crown	—	Remove
285	Eastern White Cedar	*Thuja occidentalis*	14, 13.5, 8 [21]	4	Good	—	—	Remove
286	Eastern White Cedar	*Thuja occidentalis*	15, 10, 8 [19.7]	4	Good	—	—	Remove
287	Eastern White Cedar	*Thuja occidentalis*	14.5, 11, 9.5 @ 1 m [20.5]	4	Good	—	—	Remove
288	Eastern White Cedar	*Thuja occidentalis*	19, 15, 9 @ 1 m [25.8]	4	Good	—	—	Remove
289	Eastern White Cedar	*Thuja occidentalis*	15, 11 [18.6]	4	Good	—	—	Remove
290	Black Walnut	*Juglans nigra*	22	6	Good	—	—	Remove
291	Black Walnut	*Juglans nigra*	23	8	Good	—	—	Remove
292	Eastern White Cedar	*Thuja occidentalis*	19, 12, 10 @ 1.2 m [24.6]	6	Good	—	—	Remove
293	Eastern White Cedar	*Thuja occidentalis*	13, 13, 11, 11 [24.1]	6	Good	—	—	Remove
294	Eastern White Cedar	*Thuja occidentalis*	14, 13, 13, 12 [26]	6	Good	—	—	Remove
295	Silver Maple	*Acer saccharinum*	42	8	Fair	Some dieback in lower crown	—	Remove
296	Austrian Pine	*Pinus nigra*	28	6	Good	—	—	Remove
297	Austrian Pine	*Pinus nigra*	30	5	Good	—	—	Remove
298	Austrian Pine	*Pinus nigra*	19	4	Good	—	—	Remove
299	Silver Maple	*Acer saccharinum*	80 @ 0.1 m	10	Fair	Included bark in major union	—	Remove

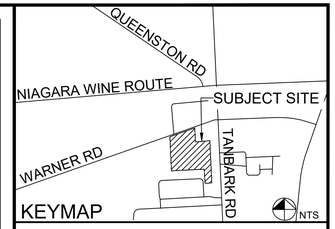
Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition[1]	Comment(s)	Tree Protection Zone Radius (m)	Recommendation
300	Northern Catalpa	*Catalpa speciosa*	15 @ 0.8 m	6	Fair-Good	Codominant leaders	—	Remove
701	Silver Maple	*Acer saccharinum*	54 @ 0.7 m	12	Good	Phase 1 inventory tag ID 43	—	Remove
702	English Walnut	*Juglans regia*	24	12	Poor-Fair	Heartwood rot at base. Strong lean	—	Remove
703	English Walnut	*Juglans regia*	38 @ 1.2 m	12	Good	—	—	Remove
704	Paper Birch	*Betula papyrifera*	18.5	6	Fair-Good	Some lean in canopy	—	Remove
705	Silver Maple	*Acer saccharinum*	62.5	16	Fair	Clothes line girdling. Some weak unions	—	Remove
706	Eastern White Cedar	*Thuja occidentalis*	27	6	Good	—	—	Remove
707	Eastern White Cedar	*Thuja occidentalis*	18, 16, 11 [26.5]	6	Fair-Good	—	—	Remove
708	Eastern White Cedar	*Thuja occidentalis*	12.8, 11, 11, 11 [23]	6	Fair-Good	—	—	Remove
709	Eastern White Cedar	*Thuja occidentalis*	14.5, 9, 7 [18.4]	6	Fair-Good	—	—	Remove
710	Eastern White Cedar	*Thuja occidentalis*	13, 12, 12, 10 [23.6]	6	Fair-Good	—	—	Remove
711	Eastern White Cedar	*Thuja occidentalis*	12.5, 11 [16.7]	6	Fair-Good	—	—	Remove
712	Eastern White Cedar	*Thuja occidentalis*	19, 15, 14 [28]	6	Fair-Good	—	—	Remove
713	Eastern White Cedar	*Thuja occidentalis*	12.5, 12, 12, 11 [23.8]	6	Fair-Good	—	—	Remove
714	Black Walnut	*Juglans nigra*	19	8	Fair-Good	—	—	Remove
715	White Spruce	*Picea glauca*	27	6	Good	—	—	Remove
716	White Spruce	*Picea glauca*	14	4	Good	—	—	Remove
717	White Spruce	*Picea glauca*	20	4	Good	—	—	Remove
718	White Spruce	*Picea glauca*	16	6	Good	—	—	Remove
719	Eastern White Cedar	*Thuja occidentalis*	16	6	Good	—	—	Remove
720	Eastern White Cedar	*Thuja occidentalis*	15	6	Good	—	—	Remove
721	Eastern White Cedar	*Thuja occidentalis*	21.5	6	Good	—	—	Remove
722	Eastern White Cedar	*Thuja occidentalis*	13.5	6	Good	—	—	Remove
723	Eastern White Cedar	*Thuja occidentalis*	14	6	Good	—	—	Remove
724	Eastern White Cedar	*Thuja occidentalis*	17.5	6	Good	—	—	Remove
725	Eastern White Cedar	*Thuja occidentalis*	18, 14.5 [23.1]	6	Good	—	—	Remove
726	Eastern White Cedar	*Thuja occidentalis*	18	6	Good	—	—	Remove
727	Eastern White Cedar	*Thuja occidentalis*	15.5	6	Good	—	—	Remove
728	Eastern White Cedar	*Thuja occidentalis*	15.5	6	Good	—	—	Remove
729	Eastern White Cedar	*Thuja occidentalis*	21.5	6	Good	—	—	Remove
730	Eastern White Cedar	*Thuja occidentalis*	19	6	Good	—	—	Remove
731	Eastern White Cedar	*Thuja occidentalis*	18	6	Good	—	—	Remove
732	Eastern White Cedar	*Thuja occidentalis*	15	6	Good	—	—	Remove
733	Eastern White Cedar	*Thuja occidentalis*	23	6	Good	—	—	Remove
734	Eastern White Cedar	*Thuja occidentalis*	17.5	6	Good	—	—	Remove
735	Eastern White Cedar	*Thuja occidentalis*	17	6	Good	—	—	Remove
736	Eastern White Cedar	*Thuja occidentalis*	26	6	Good	—	—	Remove
737	Black Walnut	*Juglans nigra*	14.5	6	Good	—	—	Remove
738	Black Walnut	*Juglans nigra*	18.5	6	Good	—	—	Remove
739	Silver Maple	*Acer saccharinum*	58 @ 0.5 m	10	Good	—	—	Remove
740	Silver Maple	*Acer saccharinum*	29, 26, 14, 14 [43.7]	10	Fair	Fork at base	—	Remove
741	Silver Maple	*Acer saccharinum*	30, 27, 18, 17 [47.3]	10	Fair	Many limbs at base	—	Remove
742	Silver Maple	*Acer saccharinum*	29	8	Fair	Dieback at leader. Moderate lean	—	Remove
743	Black Walnut	*Juglans nigra*	28	6	Good	—	—	Remove
744	Silver Maple	*Acer saccharinum*	28	6	Good	—	—	Remove

Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition[1]	Comment(s)	Tree Protection Zone Radius (m)	Recommendation
745	White Ash	*Fraxinus americana*	20, 19.8, 14.8, 11 [33.6]	9	Poor-Fair	EAB damage throughout trunk but callousing. Upper 15-20% died back, incl leader. Approx 50 % keys filled	—	Remove
746	Black Walnut	*Juglans nigra*	26	8	Good	—	—	Remove
747	Black Walnut	*Juglans nigra*	15	6	Fair	Early senescence	—	Remove
748	Black Walnut	*Juglans nigra*	28	8	Fair-Good	Some codominance	—	Remove
749	Black Walnut	*Juglans nigra*	19	8	Fair	Early senescence	—	Remove
750	Silver Maple	*Acer saccharinum*	16	14	Fair	Strong lean	—	Remove
751	Eastern White Pine	*Pinus strobus*	27	8	Good	—	—	Remove
752	Silver Maple	*Acer saccharinum*	Approx 58	16	Good	—	—	Remove
753	Honey Locust	*Gleditsia triacanthos*	37	11	Good	—	—	Remove
754	Honey Locust	*Gleditsia triacanthos*	34.5	8	Good	—	—	Remove
755	White Ash	*Fraxinus americana*	29.5	8	Poor	No fruit set. North 50% of crown dead	—	Remove
756	Honey Locust	*Gleditsia triacanthos*	28.5	10	Good	—	—	Remove
757	Austrian Pine	*Pinus nigra*	12.5 @ 1.3 m	2	Good	—	—	Remove
758	Austrian Pine	*Pinus nigra*	21	4	Good	—	—	Remove
759	Austrian Pine	*Pinus nigra*	25	4	Good	—	—	Remove
760	Austrian Pine	*Pinus nigra*	20	4	Fair-Good	Some dieback in lower crown	—	Remove
761	Blue Spruce	*Picea pungens*	14	2	Good	—	—	Remove
762	Blue Spruce	*Picea pungens*	13	2	Good	—	—	Remove
763	Silver Maple	*Acer saccharinum*	89.5	30	Fair-Good	Some dieback in crown (10%)	—	Remove
764	Scots Pine	*Pinus sylvestris*	22	4	Good	—	—	Remove
765	Austrian Pine	*Pinus nigra*	24	6	Poor-Fair	Weak major union	—	Remove
766	Eastern White Pine	*Pinus strobus*	13	4	Good	—	—	Remove
767	Austrian Pine	*Pinus nigra*	20	5	Fair-Good	—	—	Remove
768	Austrian Pine	*Pinus nigra*	22	6	Fair-Good	—	—	Remove
769	Austrian Pine	*Pinus nigra*	32	8	Fair-Good	—	—	Remove
770	Austrian Pine	*Pinus nigra*	20	6	Fair-Good	—	—	Remove
771	Black Walnut	*Juglans nigra*	21	10	Fair	Moderate lean	—	Remove
772	Balsam Fir	*Abies balsamea*	14, 12 [18.4]	3	Fair	Low fork	—	Remove
772	Japanese Tree Lilac	*Syringa reticulata*	13 @ 1 m	3	Fair-Good	—	—	Remove
774	Austrian Pine	*Pinus nigra*	35	10	Fair-Good	—	—	Remove
775	Eastern White Cedar	*Thuja occidentalis*	14	4	Good	—	—	Remove
776	Eastern White Cedar	*Thuja occidentalis*	13	4	Good	—	—	Remove
777	Austrian Pine	*Pinus nigra*	18	4	Good	—	—	Remove
778	Eastern White Cedar	*Thuja occidentalis*	15	4	Good	—	—	Remove
779	Eastern White Pine	*Pinus strobus*	16.5	4	Good	—	—	Remove
780	Austrian Pine	*Pinus nigra*	31	6	Good	—	—	Remove
781	Eastern White Pine	*Pinus strobus*	19	8	Good	—	—	Remove
782	Eastern White Pine	*Pinus strobus*	16, 9, 8 [20]	6	Good	—	—	Remove
783	Eastern White Pine	*Pinus strobus*	20	6	Good	—	—	Remove
784	Eastern White Pine	*Pinus strobus*	21	10	Good	—	—	Remove
785	Norway Spruce	*Picea abies*	49	8	Good	—	—	Remove
786	Ohio Buckeye	*Aesculus glabra*	13 @ 0.8 m	6	Good	—	—	Remove
787	Blue Spruce	*Picea pungens*	15	4	Good	—	—	Remove
788	Eastern White Pine	*Pinus strobus*	15	6	Good	—	—	Remove
789	Norway Spruce	*Picea abies*	35	8	Good	—	—	Remove
790	Austrian Pine	*Pinus nigra*	22	6	Fair-Good	—	—	Remove
791	Blue Spruce	*Picea pungens*	14	4	Good	—	—	Remove
792	Silver Maple	*Acer saccharinum*	65	12	Fair-Good	—	—	Remove
793	Honey Locust	*Gleditsia triacanthos*	32	8	Good	—	—	Remove
794	White Ash	*Fraxinus americana*	26	8	Fair	No dieback. No fruit. EAB wounds	—	Remove

Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition[1]	Comment(s)	Tree Protection Zone Radius (m)	Recommendation
795	Basswood	*Tilia americana*	14	4	Fair	Shoots at base	—	Remove
796	Honey Locust	*Gleditsia triacanthos*	29	8	Good	—	—	Remove
797	Norway Spruce	*Picea abies*	31.5	8	Good	—	—	Remove
798	Black Walnut	*Juglans nigra*	18	6	Good	—	—	Remove
799	Black Walnut	*Juglans nigra*	22	6	Good	—	—	Remove
800	Black Walnut	*Juglans nigra*	14	6	Good	—	—	Remove
801	Honey Locust	*Gleditsia triacanthos*	24	8	Fair-Good	—	—	Remove
802	Black Walnut	*Juglans nigra*	31	8	Good	—	—	Remove
803	White Ash	*Fraxinus americana*	15	6	Poor-Fair	Early senescence in upper crown	—	Remove
804	Shagbark Hickory	*Carya ovata*	25	12	Fair-Good	Based on fence location, not a boundary tree	—	Remove
805	Shagbark Hickory	*Carya ovata*	30	10	Good	—	—	Remove
806	Shagbark Hickory	*Carya ovata*	28	10	Good	—	—	Remove
807	Shagbark Hickory	*Carya ovata*	26	10	Good	—	—	Remove
808	Shagbark Hickory	*Carya ovata*	31	10	Good	—	—	Remove
809	Silver Maple	*Acer saccharinum*	41 @ 0.2 m	8	Fair	Low fork	—	Remove
810	Norway Spruce	*Picea abies*	28	8	Good	—	—	Remove
811	Norway Spruce	*Picea abies*	22	8	Good	—	—	Remove
812	Norway Spruce	*Picea abies*	27, 20, 13 [36]	8	Fair	Low forks	—	Remove
813	Norway Spruce	*Picea abies*	18	5	Good	—	—	Remove
N1	Austrian Pine	*Pinus nigra*	Approx 30	6	Fair	Codominant leaders in upper crown	2.4	Preserve
N2	Austrian Pine	*Pinus nigra*	Approx 30	6	Good	—	2.4	Preserve
N3	Eastern White Pine	*Pinus strobus*	18	8	Fair	Trunk edge almost at fence. Crown overhanging	1.8	Preserve

Appendix C

Tree Inventory and Preservation Plan



LEGEND

- Property Boundary
- Tree Preservation Fence
- 1678 Tree tag
- Tree Crown
- Minimum Tree Protection Zone

Tree Location

- Tree to be Preserved
- Tree to be Removed Due to Development
- Fruit or Weed Tree Areas to be Removed Due to Development

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3			
2			
1	COMMENT	xxxx/xx/xx	xx

SCALE

1:500 0 5 10 20m

NORTH ARROW

CERTIFIED ARBORIST ISA
ARBORIST
#ON-FILL

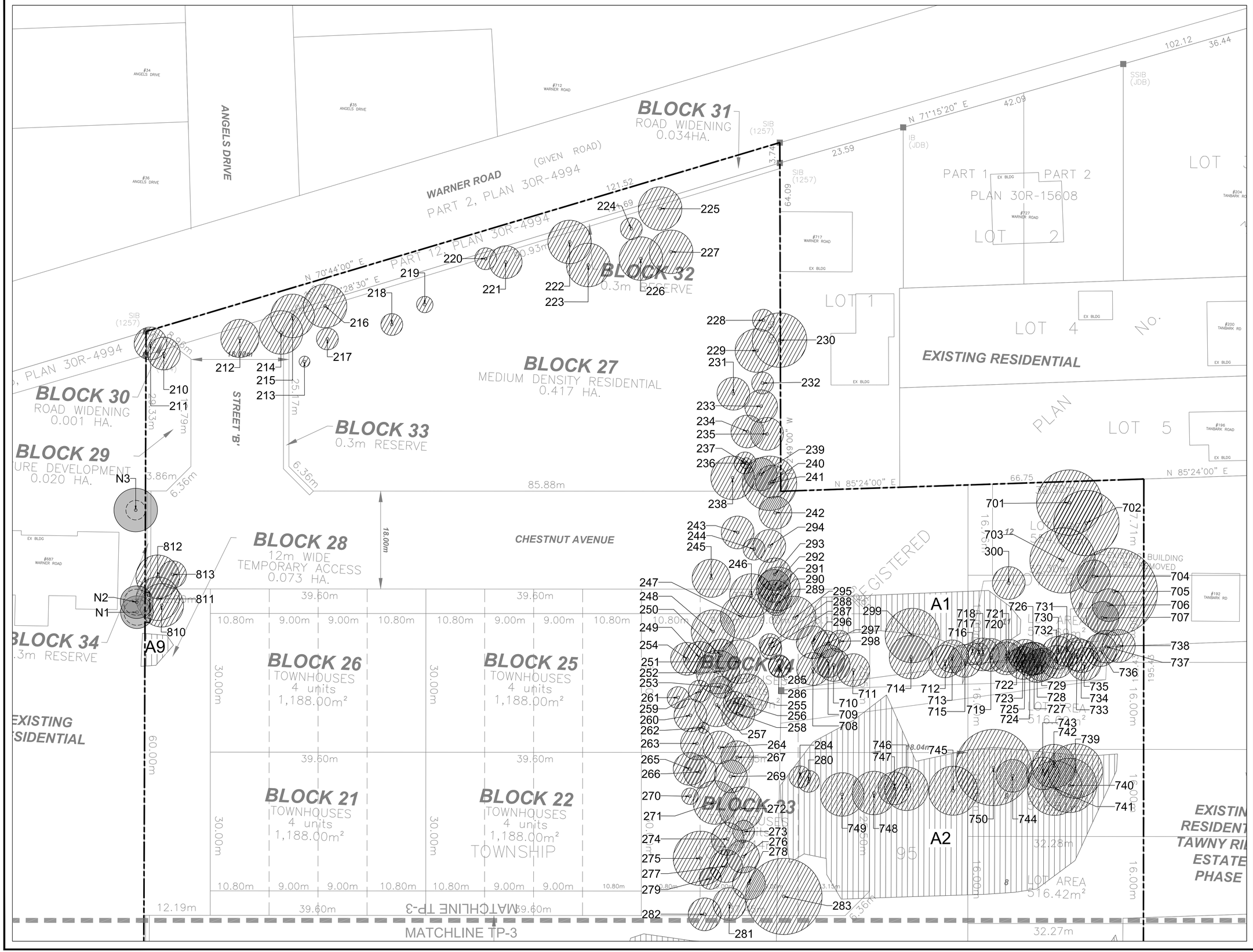
BEACON ENVIRONMENTAL
MARKHAM OFFICE
80 MAIN ST NORTH
MARKHAM, ON L3P 1X5
T) 905.201.7622
F) 905.201.0639

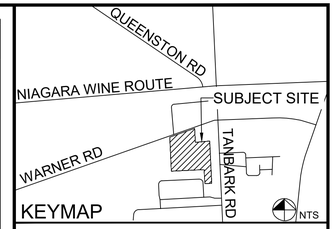
CLIENT
ST DAVIDS RIVERVIEW ESTATES

PROJECT
TAWNY RIDGE ESTATES

SHEET TITLE
TREE INVENTORY AND PRESERVATION PLAN

DESIGN BY:	--	PROJECT Nº:	222339
DRAWN BY:	CS	FIGURE Nº:	TP-1
CHECKED BY:	DW		
DATE:	17 October 2022		





LEGEND

- Property Boundary
- Tree Preservation Fence
- 1678 Tree tag
- Tree Crown
- Minimum Tree Protection Zone

Tree Location

- Tree to be Preserved
- Tree to be Removed Due to Development
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Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3			
2			
1	COMMENT	xxxx/xx/xx	xx

SCALE 1:300 (0, 5, 10, 20m)

NORTH ARROW

CERTIFIED ARBORIST ISA ARBORIST #ON-FILL

BEACON ENVIRONMENTAL
MARKHAM OFFICE
80 MAIN ST NORTH
MARKHAM, ON L3P 1X5
T) 905.201.7622
F) 905.201.0639

CLIENT
ST DAVIDS RIVERVIEW ESTATES

PROJECT
TAWNY RIDGE ESTATES

SHEET TITLE
TREE INVENTORY AND PRESERVATION PLAN

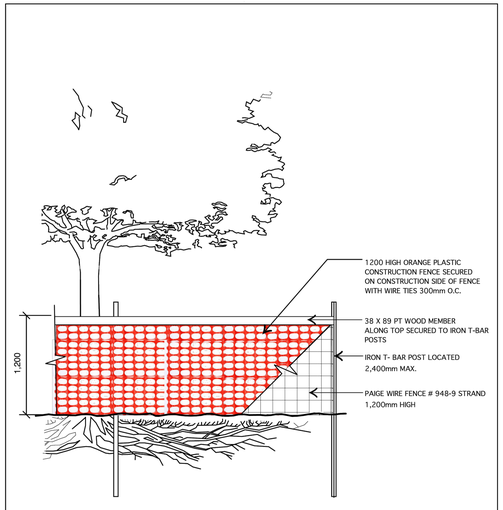
DESIGN BY: --	PROJECT Nº: 222339
DRAWN BY: CS	FIGURE Nº: TP-2
CHECKED BY: DW	
DATE: 17 October 2022	

N°	REVISIONS	DATE:	BY:
6			
5			
4			
3			
2			
1	COMMENT	xxxx/xx/xx	xx

TREE INVENTORY TABLE

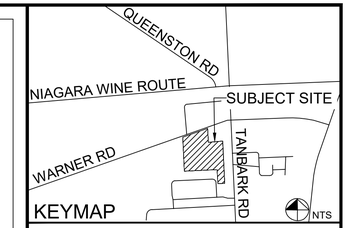
Tree Tag ID	Species (Common Name)	Species (Scientific Name)	DBH [aggregate] (cm)	Crown Diameter (m)	Condition	Comment(s)	Tree Protection Zone Radius (m)	Recommendation
210	Norway Spruce	*Picea abies*	28	6	Good	Good form and vigour	—	Remove
211	Sugar Maple	*Acer saccharum*	Approx. 28	6	Fair-Good	Good vigour. Some unions with poor structure	—	Remove
212	Norway Spruce	*Picea abies*	42	7	Good	Good form and vigour	—	Remove
213	Austrian Pine	*Pinus nigra*	13	2	Good	Good form and vigour	—	Remove
214	Norway Spruce	*Picea abies*	33	8	Good	Good form and vigour	—	Remove
215	Norway Spruce	*Picea abies*	33	8	Good	Good form and vigour	—	Remove
216	Norway Spruce	*Picea abies*	34	8	Good	Good form and vigour	—	Remove
217	Austrian Pine	*Pinus nigra*	12,6	4	Good	Good form and vigour	—	Remove
218	Austrian Pine	*Pinus nigra*	14	4	Good	Good form and vigour	—	Remove
219	Austrian Pine	*Pinus nigra*	13	3	Good	Good form and vigour	—	Remove
220	Austrian Pine	*Pinus nigra*	12,5	4	Good	Good form and vigour	—	Remove
221	Norway Spruce	*Picea abies*	21	6	Good	Good form and vigour	—	Remove
222	Norway Spruce	*Picea abies*	32	8	Good	Good form and vigour	—	Remove
223	Norway Spruce	*Picea abies*	31	8	Good	Good form and vigour	—	Remove
224	Austrian Pine	*Pinus nigra*	13.5	4	Good	Good form and vigour	—	Remove
225	Norway Spruce	*Picea abies*	34	8	Good	Good form and vigour	—	Remove
226	Austrian Pine	*Pinus nigra*	37	8	Good	Good form and vigour	—	Remove
227	Norway Spruce	*Picea abies*	42	8	Good	Good form and vigour	—	Remove
228	Blue Spruce	*Picea pungens*	18	4	Fair	Good form. Distal leaves yellowing throughout crown; approx 50%	—	Remove
229	Austrian Pine	*Pinus nigra*	43	8	Good	Good form and vigour	—	Remove
230	Northern Red Oak	*Quercus rubra*	Approx. 60	10	Good	Good form and vigour. Possible boundary tree	—	Remove
231	White Ash	*Fraxinus americana*	28	6	Poor	Most of crown dead. Only lower crown and epicormics remain living at time of survey	—	Remove
232	Blue Spruce	*Picea pungens*	18	4	Good	Good form and vigour	—	Remove
233	Norway Spruce	*Picea abies*	24	6	Good	Good form and vigour	—	Remove
234	White Spruce	*Picea glauca*	30	6	Good	Good form and vigour	—	Remove
235	Blue Spruce	*Picea pungens*	30	6	Good	Good form and vigour	—	Remove
236	White Spruce	*Picea glauca*	16	2	Fair	Etherd at base and growing into adjacent tree	—	Remove
237	Northern Red Oak	*Quercus rubra*	18	4	Fair	Entwined at base and growing into adjacent tree	—	Remove
238	Scots Pine	*Pinus sylvestris*	36	8	Fair-Good	Good vigour, fair form	—	Remove
239	Austrian Pine	*Pinus nigra*	32	6	Poor-Fair	Lower canopy dead from diplodia	—	Remove
240	Eastern White Cedar	*Thuja occidentalis*	16, 16, 15 [27.1]	6	Fair	Good vigour. Forks at base	—	Remove
241	Manitoba Maple	*Acer negundo*	19	10	Fair	Good vigour. Strong lean	—	Remove
242	Norway Maple	*Acer platanoides*	21	6	Fair-Good	—	—	Remove
243	White Spruce	*Picea glauca*	26	6	Good	Good form and vigour	—	Remove
244	Austrian Pine	*Pinus nigra*	32	4	Poor-Fair	Thin crown, diplodia	—	Remove
245	Austrian Pine	*Pinus nigra*	40	7	Fair	Good vigour. Codominant leaders in upper crown	—	Remove
246	Austrian Pine	*Pinus nigra*	38	8	Fair	Thinning crown and codominant leaders	—	Remove
247	Austrian Pine	*Pinus nigra*	35	8	Fair-Good	—	—	Remove
248	Austrian Pine	*Pinus nigra*	52 @ 0.1 m	8	Fair-Good	—	—	Remove
249	Norway Spruce	*Picea abies*	36	6	Good	—	—	Remove
250	Norway Spruce	*Picea abies*	32	6	Good	—	—	Remove
251	Norway Spruce	*Picea abies*	44	8	Good	—	—	Remove
252	Austrian Pine	*Pinus nigra*	27	8	Fair	Some Diplodia	—	Remove
253	Austrian Pine	*Pinus nigra*	31	4	Fair	Some Diplodia and moderately weak unions	—	Remove
254	Scots Pine	*Pinus sylvestris*	34	6	Fair-Good	Some thinning.	—	Remove
255	Blue Spruce	*Picea pungens*	44 @ 0.3 m	8	Fair	Low fork	—	Remove
256	Norway Spruce	*Picea abies*	16	4	Good	—	—	Remove
257	Norway Spruce	*Picea abies*	44	8	Good	—	—	Remove
258	Scots Pine	*Pinus sylvestris*	43	6	Fair	Low fork	—	Remove
259	Norway Spruce	*Picea abies*	14	4	Good	—	—	Remove
260	Scots Pine	*Pinus sylvestris*	32	6	Fair	Crown thinning and codominant leaders	—	Remove
261	Scots Pine	*Pinus sylvestris*	30	4	Fair	Crown thinning	—	Remove
262	Austrian Pine	*Pinus nigra*	18	2	Good	—	—	Remove
263	Eastern White Pine	*Pinus strobus*	39	6	Good	—	—	Remove
264	Austrian Pine	*Pinus nigra*	28	6	Good	—	—	Remove
265	White Spruce	*Picea glauca*	29	6	Good	—	—	Remove
266	Austrian Pine	*Pinus nigra*	30	6	Good	—	—	Remove
267	Norway Spruce	*Picea abies*	31	6	Good	—	—	Remove
269	Austrian Pine	*Pinus nigra*	35	6	Fair	Some codominant leaders	—	Remove
270	Blue Spruce	*Picea pungens*	16	3	Good	—	—	Remove
271	Austrian Pine	*Pinus nigra*	28	8	Fair	Codominant leaders	—	Remove
272	Austrian Pine	*Pinus nigra*	39	8	Good	—	—	Remove
273	White Spruce	*Picea glauca*	30	4	Good	—	—	Remove
274	White Spruce	*Picea glauca*	28	6	Good	—	—	Remove
275	Austrian Pine	*Pinus nigra*	42	10	Fair	Open crown with many moderately weak limbs	—	Remove
276	White Spruce	*Picea glauca*	23	6	Good	—	—	Remove
277	Norway Spruce	*Picea abies*	27	6	Good	—	—	Remove
278	Blue Spruce	*Picea pungens*	30	6	Good	—	—	Remove
279	Norway Spruce	*Picea abies*	22	4	Fair-Good	Minor weak union	—	Remove
280	Black Walnut	*Juglans nigra*	17	4	Good	—	—	Remove
281	Blue Spruce	*Picea pungens*	28	6	Good	—	—	Remove
282	Blue Spruce	*Picea pungens*	28	6	Good	—	—	Remove
283	Swamp Pin Oak	*Quercus palustris*	61	14	Fair-Good	Some nodes with many branches	—	Remove
284	Black Walnut	*Juglans nigra*	13	4	Fair-Good	Some lean in upper crown	—	Remove
285	Eastern White Cedar	*Thuja occidentalis*	14, 13.5, 8 [21]	4	Good	—	—	Remove
286	Eastern White Cedar	*Thuja occidentalis*	15, 10, 8 [19.7]	4	Good	—	—	Remove
287	Eastern White Cedar	*Thuja occidentalis*	14.5, 11, 9.5 @ 1 m [20.5]	4	Good	—	—	Remove
288	Eastern White Cedar	*Thuja occidentalis*	19, 15, 9 @ 1 m [25.8]	4	Good	—	—	Remove
289	Eastern White Cedar	*Thuja occidentalis*	15, 11 [18.6]	4	Good	—	—	Remove
290	Black Walnut	*Juglans nigra*	22	6	Good	—	—	Remove
291	Black Walnut	*Juglans nigra*	23	8	Good	—	—	Remove
292	Eastern White Cedar	*Thuja occidentalis*	19, 12, 10 @ 1.2 m [24.6]	6	Good	—	—	Remove
293	Eastern White Cedar	*Thuja occidentalis*	13, 13, 11, 11 [24.1]	6	Good	—	—	Remove
294	Eastern White Cedar	*Thuja occidentalis*	14, 13, 13, 12 [26]	6	Good	—	—	Remove
295	Silver Maple	*Acer saccharinum*	42	8	Fair	Some dieback in lower crown	—	Remove
296	Austrian Pine	*Pinus nigra*	28	6	Good	—	—	Remove
297	Austrian Pine	*Pinus nigra*	30	5	Good	—	—	Remove
298	Austrian Pine	*Pinus nigra*	19	4	Good	—	—	Remove
299	Silver Maple	*Acer saccharinum*	80 @ 0.1 m	10	Fair	Included bark in major union	—	Remove
300	Northern Catalpa	*Catalpa speciosa*	15 @ 0.8 m	6	Fair-Good	Codominant leaders	—	Remove
701	Silver Maple	*Acer saccharinum*	54 @ 0.7 m	12	Good	Phase 1 inventory tag ID 43	—	Remove
702	English Walnut	*Juglans regia*	24	12	Poor-Fair	Heartwood rot at base. Strong lean	—	Remove
703	English Walnut	*Juglans regia*	38 @ 1.2 m	12	Good	—	—	Remove
704	Paper Birch	*Betula papyrifera*	18.5	6	Fair-Good	Some lean in canopy	—	Remove
705	Silver Maple	*Acer saccharinum*	62.5	16	Fair	Clothes line girdling. Some weak unions	—	Remove
706	Eastern White Cedar	*Thuja occidentalis*	27	6	Good	—	—	Remove
707	Eastern White Cedar	*Thuja occidentalis*	18, 16, 11 [26.5]	6	Fair-Good	—	—	Remove
708	Eastern White Cedar	*Thuja occidentalis*	12.8, 11, 11, 11 [23]	6	Fair-Good	—	—	Remove
709	Eastern White Cedar	*Thuja occidentalis*	14.5, 9, 7 [18.4]	6	Fair-Good	—	—	Remove
710	Eastern White Cedar	*Thuja occidentalis*	13, 12, 12, 10 [23.6]	6	Fair-Good	—	—	Remove
711	Eastern White Cedar	*Thuja occidentalis*	12.5, 11 [16.7]	6	Fair-Good	—	—	Remove
712	Eastern White Cedar	*Thuja occidentalis*	19, 15, 14 [28]	6	Fair-Good	—	—	Remove
713	Eastern White Cedar	*Thuja occidentalis*	12.5, 12, 12, 11 [23.8]	6	Fair-Good	—	—	Remove
714	Black Walnut	*Juglans nigra*	19	8	Fair-Good	—	—	Remove
715	White Spruce	*Picea glauca*	27	6	Good	—	—	Remove
716	White Spruce	*Picea glauca*	14	4	Good	—	—	Remove
717	White Spruce	*Picea glauca*	20	4	Good	—	—	Remove
718	White Spruce	*Picea glauca*	16	6	Good	—	—	Remove
719	Eastern White Cedar	*Thuja occidentalis*	16	6	Good	—	—	Remove
720	Eastern White Cedar	*Thuja occidentalis*	15	6	Good	—	—	Remove
721	Eastern White Cedar	*Thuja occidentalis*	21.5	6	Good	—	—	Remove
722	Eastern White Cedar	*Thuja occidentalis*	13.5	6	Good	—	—	Remove
723	Eastern White Cedar	*Thuja occidentalis*	14	6	Good	—	—	Remove
724	Eastern White Cedar	*Thuja occidentalis*	17.5	6	Good	—	—	Remove
725	Eastern White Cedar	*Thuja occidentalis*	18, 14.5 [23.1]	6	Good	—	—	Remove
726	Eastern White Cedar	*Thuja occidentalis*	18	6	Good	—	—	Remove
727	Eastern White Cedar	*Thuja occidentalis*	15.5	6	Good	—	—	Remove
728	Eastern White Cedar	*Thuja occidentalis*	15.5	6	Good	—	—	Remove
729	Eastern White Cedar	*Thuja occidentalis*	21.5	6	Good	—	—	Remove
730	Eastern White Cedar	*Thuja occidentalis*	19	6	Good	—	—	Remove
731	Eastern White Cedar	*Thuja occidentalis*	18	6	Good	—	—	Remove
732	Eastern White Cedar	*Thuja occidentalis*	15	6	Good	—	—	Remove
733	Eastern White Cedar	*Thuja occidentalis*	23	6	Good	—	—	Remove
734	Eastern White Cedar	*Thuja occidentalis*	17.5	6	Good	—	—	Remove
735	Eastern White Cedar	*Thuja occidentalis*	17	6	Good	—	—	Remove
736	Eastern White Cedar	*Thuja occidentalis*	26	6	Good	—	—	Remove
737	Black Walnut	*Juglans nigra*	14.5	6	Good	—	—	Remove
738	Black Walnut	*Juglans nigra*	18.5	6	Good	—	—	Remove
739	Silver Maple	*Acer saccharinum*	58 @ 0.5 m	10	Good	—	—	Remove
740	Silver Maple	*Acer saccharinum*	29, 26, 14, 14 [43.7]	10	Fair	Fork at base	—	Remove
741	Silver Maple	*Acer saccharinum*	30, 27, 18, 17 [47.3]	10	Fair	Many limbs at base	—	Remove
742	Silver Maple	*Acer saccharinum*	29	8	Fair	Dieback at leader. Moderate lean	—	Remove
743	Black Walnut	*Juglans nigra*	28	6	Good	—	—	Remove
744	Silver Maple	*Acer saccharinum*	28	6	Good	—	—	Remove
745	White Ash	*Fraxinus americana*	20, 19.8, 14.8, 11 [33.6]	9	Poor-Fair	EAB damage throughout trunk but callousing. Upper 15-20% died back, incl leader. Approx 50 % keys filled	—	Remove
746	Black Walnut	*Juglans nigra*	26	8	Good	—	—	Remove
747	Black Walnut	*Juglans nigra*	15	6	Fair	Early senescence	—	Remove
748	Black Walnut	*Juglans nigra*	28	8	Fair-Good	Some codominance	—	Remove
749	Black Walnut	*Juglans nigra*	19	8	Fair	Early senescence	—	Remove
750	Silver Maple	*Acer saccharinum*	16	14	Fair	Strong lean	—	Remove
751	Eastern White Pine	*Pinus strobus*	27	8	Good	—	—	Remove
752	Silver Maple	*Acer saccharinum*	Approx 58	16	Good	—	—	Remove
753	Honey Locust	*Gleditsia triacanthos*	37	11	Good	—	—	Remove
754	Honey Locust	*Gleditsia triacanthos*	34.5	8	Good	—	—	Remove
755	White Ash	*Fraxinus americana*	20.5	8	Poor	No fruit set. North 50% of crown dead	—	Remove
756	Honey Locust	*Gleditsia triacanthos*	28.5	10	Good	—	—	Remove
757	Austrian Pine	*Pinus nigra*	12.5 @ 1.3 m	2	Good	—	—	Remove
758	Austrian Pine	*Pinus nigra*	21	4	Good	—	—	Remove
759	Austrian Pine	*Pinus nigra*	25	4	Good	—	—	Remove
760	Austrian Pine	*Pinus nigra*	20	4	Fair-Good	Some dieback in lower crown	—	Remove
761	Blue Spruce	*Picea pungens*	14	2	Good	—	—	Remove
762	Blue Spruce	*Picea pungens*	13	2	Good	—	—	Remove
763	Silver Maple	*Acer saccharinum*	89.5	30	Fair-Good	Some dieback in crown (10%)	—	Remove
764	Scots Pine	*Pinus sylvestris*	22	4	Good	—	—	Remove
765	Austrian Pine	*Pinus nigra*	24	6	Poor-Fair	Weak major union	—	Remove
766	Eastern White Pine	*Pinus strobus*	13	4	Good	—	—	Remove
767	Austrian Pine	*Pinus nigra*	20	5	Fair-Good	—	—	Remove
768	Austrian Pine	*Pinus nigra*	22	6	Fair-Good	—	—	Remove
769	Austrian Pine	*Pinus nigra*	32	8	Fair-Good	—	—	Remove
770	Austrian Pine	*Pinus nigra*	20	6	Fair-Good	—	—	Remove
771	Black Walnut	*Juglans nigra*	21	10	Fair	Moderate lean	—	Remove
772	Balsam Fir	*Abies balsamea*	14, 12 [18.4]	3	Fair	Low fork	—	Remove
772	Japanese Tree Lilac	*Syringa reticulata*	13 @ 1 m	3	Fair-Good	—	—	Remove
774	Austrian Pine	*Pinus nigra*	35	10	Fair-Good	—	—	Remove
775	Eastern White Cedar	*Thuja occidentalis*	14	4	Good	—	—	Remove
776	Eastern White Cedar	*Thuja occidentalis*	13	4	Good	—	—	Remove
777	Austrian Pine	*Pinus nigra*	18	4	Good	—	—	Remove
778	Eastern White Cedar	*Thuja occidentalis*	15	4	Good	—	—	Remove
779	Eastern White Pine	*Pinus strobus*	16.5	4	Good	—	—	Remove
780	Austrian Pine	*Pinus nigra*	31	6	Good	—	—	Remove
781	Eastern White Pine	*Pinus strobus*	19	8	Good	—	—	Remove
782	Eastern White Pine	*Pinus strobus*	16, 9, 8 [20]	6	Good	—	—	Remove
783	Eastern White Pine	*Pinus strobus*	20	6	Good	—	—	Remove
784	Eastern White Pine	*Pinus strobus*	21	10	Good	—	—	Remove
785	Norway Spruce	*Picea abies*	49	8	Good	—	—	Remove
786	Ohio Buckeye	*Aesculus glabra*	13 @ 0.8 m	6	Good	—	—	Remove
787	Blue Spruce	*Picea pungens*	15	4	Good	—	—	Remove
788	Eastern White Pine	*Pinus strobus*	15	6	Good	—	—	Remove
789	Norway Spruce	*Picea abies*	35	8	Good	—	—	Remove
790	Austrian Pine	*Pinus nigra*	22	6	Fair-Good	—	—	Remove
791	Blue Spruce	*Picea pungens*	14	4	Good	—	—	Remove
792	Silver Maple	*Acer saccharinum*	65	12	Fair-Good	—	—	Remove
793	Honey Locust	*Gleditsia triacanthos*	32	8	Good	—	—	Remove
794	White Ash	*Fraxinus americana*	26	8	Fair	No dieback. No fruit. EAB wounds	—	Remove
795	Basswood	*Tilia americana*	14	4	Fair	Shoots at base	—	Remove
796	Honey Locust	*Gleditsia triacanthos*	29	8	Good	—	—	Remove
797	Norway Spruce	*Picea abies*	31.5	8	Good	—	—	Remove
798	Black Walnut	*Juglans nigra*	18	6	Good	—	—	Remove
799	Black Walnut	*Juglans nigra*	22	6	Good	—	—	Remove
800	Black Walnut	*Juglans nigra*	14	6	Good	—	—	Remove
801	Honey Locust	*Gleditsia triacanthos*	24	8	Fair-Good	—	—	Remove
802	Black Walnut	*Juglans nigra*	31	8	Good	—	—	Remove
803	White Ash	*Fraxinus americana*	15	6	Poor-Fair	Early senescence in upper crown	—	Remove
804	Shagbark Hickory	*Carya ovata*	25	12	Fair-Good	Based on fence location, not a boundary tree	—	Remove
805	Shagbark Hickory	*Carya ovata*	30	10	Good	—	—	Remove
806	Shagbark Hickory	*Carya ovata*	28	10	Good	—	—	Remove
807	Shagbark Hickory	*Carya ovata*	26	10	Good	—	—	Remove
808	Shagbark Hickory	*Carya ovata*	31	10	Good	—	—	Remove
809	Silver Maple	*Acer saccharinum*	41 @ 0.2 m	8	Fair	Low fork	—	Remove
810	Norway Spruce	*Picea abies*	28	8	Good	—	—	Remove
811	Norway Spruce	*Picea abies*	22	8	Good	—	—	Remove
812	Norway Spruce	*Picea abies*	27, 20, 13 [36]	8	Fair	Low forks	—	Remove
813	Norway Spruce	*Picea abies*	18	5	Good	—	—	Remove
N1	Austrian Pine	*Pinus nigra*	Approx 30	6	Fair	Codominant leaders in upper crown	2.4	Preserve
N2	Austrian Pine	*Pinus nigra*	Approx 30	6	Good	—	2.4	Preserve
N3	Eastern White Pine	*Pinus strobus*	18	8	Fair	Trunk edge almost at fence. Crown overhanging	1.8	Preserve

Area	Species (Scientific Name)	Species (Common Name)	Approximate diameter(s) (cm)	Qty
A1	*Acer negundo*	Manitoba Maple	25	3
	Malus pumila	Apple	15 – 20	11
	Prunus persica	Peach	15	4
A2	*Acer negundo*	Manitoba Maple	15 – 30	13
	Acer platanoides	Norway Maple	15 – 30	2
	Malus pumila	Apple	15 – 30	23
A3	*Acer negundo*	Manitoba Maple	15 – 30	1
	Acer platanoides	Norway Maple	15 – 30	1 (tag 57 from phase 1 inventory)
	Malus pumila	Apple	15 – 30	12 (includes tags 52, 60, and 61 from phase 1 inventory)
A4	*Acer platanoides*	Norway Maple	15 – 30	4
	Malus pumila	Apple	15 – 30	4
	Rhamnus cathartica	European Buckthorn	20	1
A5	*Acer negundo*	Manitoba Maple	15 – 30	4
	Malus pumila	Apple	15 – 30	12
	Morus alba	White Mulberry	20	2
	Prunus avium	Sweet Cherry	15 – 30	3
	Pyrus communis	Pear	15 – 30	4
	Rhamnus cathartica	European Buckthorn	20	4
A6	*Acer negundo*	Manitoba Maple	15 – 30	1
	Acer platanoides	Norway Maple	12 – 36	12
	Malus pumila	Apple	15 – 30	2
	Prunus avium	Sweet Cherry	15 – 30	3
	Rhamnus cathartica	European Buckthorn	20	1
A7	*Morus alba*	White Mulberry	12	2
	Prunus avium	Sweet Cherry	30	1
	Populus deltoides	Eastern Cottonwood	42	1
	Pyrus communis	Pear	15	9
A8	*Rhamnus cathartica*	European Buckthorn	20	2
	Ulmus pumila	Siberian Elm	20	1



BEACON ENVIRONMENTAL | TREE PROTECTION FENCE DETAIL | DETAIL NO 1

1 / TP-4 TREE PROTECTION FENCING DETAIL
NTS



LEGEND

Notes: Scale shown is for an 36" x 24" page.
For illustrative purposes. Do not scale

Nº	REVISIONS	DATE:	BY:
6			
5			
4			
3			
2			
1	COMMENT	xxxx/xx/xx	xx

SCALE

NORTH ARROW

CERTIFIED ARBORIST ISA
ARBORIST #ON-FILL

BEACON ENVIRONMENTAL
MARKHAM OFFICE
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CLIENT
ST DAVIDS RIVERVIEW ESTATES

PROJECT
TAWNY RIDGE ESTATES

SHEET TITLE
TREE INVENTORY TABLE AND TREE PROTECTION DETAIL

DESIGN BY: --	PROJECT Nº: 221308
DRAWN BY: CS	FIGURE Nº: TP-4
CHECKED BY: DW	
DATE: 17 October 2022	