

Tree Inventory, Protection & Removal Plan

**Prepared for:
Hillsburgh Heights Inc.**

Site: 5916 Trafalgar Road North, Hillsburgh, Erin Ontario

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1.0 Introduction

1.1 Purpose of Assignment

The Urban Arborist Inc was retained by Hillsburgh Heights Inc. to prepare a Tree Inventory, Protection Plan, and Removal Plan for a proposed subdivision. Two sections of land is to be left for future uses. Area of land to be developed is shown in Tree Inventory / Protection Plan Drawing TP-1.



Figure 1. Subject Lot at 5916 Trafalgar Road North. Erin, ON. Part 1 and Part 2 Lot 26 Concession 7

1.2 Existing Site Characteristics

The site consists of 1 detached home, with a large barn, and a secondary large garage. The lot has several large grade changes in the form of hills and valleys.

2.0 Methodology

All data used in this report is empirical in nature, unless stated otherwise. All measurements in this report utilize the metric system of measurement.

2.1 Field Study

Site inspection and data collection was initiated August 31, 2021. All significant trees measuring 20cm DBH and greater located on the subject lands. Trees were measured 1.37m from grade (DBH). All trees smaller than the 20cm DBH threshold are shown as groupings.

2.2 Tree Locations

The locations of all significant trees were surveyed and plotted and shown on drawing in appendix 2.

2.3 Tree Conditions

During field study a generalized assessment system was used to give each significant tree a rating based on structural condition and health condition.

The following 5 level assessment for health is listed below.

- Very Poor - Tree displays severe dieback of branches, canopy is extremely sparse. May exhibit extreme pathogen infestation or infection. Or tree is dead.
- Poor - Tree displays some dieback. Branches or canopy is sparse with little or no signs of new growth or vigour. Possible pathogen infestation or infection. Foliar canopy is sparse.
- Average - Tree is developing in a manner typical to others in the area. Canopy is full.
- Good - New growth is vigorous as evidenced by stem elongation and colour. Canopy is dense.
- Very Good - In addition to the attributes of a good rating, tree is displaying extremely vigorous growth and trunk displays a pattern of vigour cracks or lines.

The following 5 level assessment for structural condition was as follows:

- Very Poor - Trunk has large pockets of decay, is bifurcated or has a severe lean. Limbs or branches are poorly attached or dead. Possible hazard.

- Poor - Limbs or branches are poorly attached or developed. Canopy is not symmetrical. Trunk has a lean.
- Average - Trunk, limb and branch development though flawed is typical of this species.
- Good - Trunk is well developed with well attached limbs and branches; some flaws but are hardly visible.
- Very Good - In addition to attributes of a good rating, the tree exhibits a well developed root flare and a balanced canopy.

Factors Assessed were as follows:

Roots	Trunk	Foliage/Buds	Scaffold Branches	Small Branches/Twigs
<ul style="list-style-type: none"> · Collar/flare · Mechanical injury · Girdling roots · Insects/disease · Decay/fungi 	<ul style="list-style-type: none"> · Cavities · Mechanical injury · Cracks · Swollen/sunken areas · Insects/disease · Fungi 	<ul style="list-style-type: none"> · Size of foliage/buds · Foliage colour · Foliage injury · Dieback of buds/foilage · Insects/disease 	<ul style="list-style-type: none"> · Attachments/included bark · Taper · Distribution · Decay/cavities · Deadwood · Insects/disease 	<ul style="list-style-type: none"> · Vigour/growth rates · Distribution · Appearance · Insects/disease · Dieback

3.0 Tree Inventory

A total of 80 trees were individually inventoried and 6 groupings of trees were inventoried. (See Tree Inventory Spreadsheet in appendix 1).

Groupings consisted of mostly juvenile trees less than 20cm in diameter.

3.1 Trees to Preserve

The trees in this section have been evaluated suitable for preservation and fall under the Tree Preservation, Protection and Management guidelines in this report. Different approaches of Tree Preservation can be carried out following tree health and structure evaluation. The following describes the differences in approaches to Tree Preservation.

1. Preserve, Protect & Maintain

Includes protection with tree preservation hoarding, as well as pre and post-construction arboricultural works.

2. Preserve & Protect

Includes the installation of tree protection hoarding; no maintenance will be required unless specified in the recommendations in Appendix 1

3. Retain

No protection or maintenance measures are required. Installation of tree protection barriers is optional.

4. Transplanting

Where size of tree permits transplanting, it is recommended that moving a tree to a location that would suit the tree.

# of Trees evaluated as suitable for Preservation	31
# of Trees to use Method 1	
# of Trees to use Method 2	1241 – 1244, 1246 – 1267, 1303 – 1307,
# of Trees to use Method 3	Grouping 3
# of Trees to use Method 4	

In the case of 5916 Trafalgar Road North, 31 trees individually inventoried trees and 1 grouping of trees can be preserved on site. Trees that will be protected with hoarding are all trees the subject site that are not proposed to be removed. Trees suitable for preservation must be preserved only through the full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines contained in this report for trees to continue to survive.

3.2 Trees to Remove

All trees scheduled for removal shall be removed prior to any construction, earthworks or installation of tree protection hoarding. Due to site or development, tree condition or location, retention is not warranted. All trees and groupings of trees, except for tree 1241 – 1244, 1246 – 1267, 1303 – 1307, and Grouping 3 will be required to be removed due to development impact.

Total of number of Trees to Remove	All except 1241 – 1244, 1246 – 1267, 1303 – 1307, grouping 3
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3.3 Trees to Injure

There are no trees to be injured. All trees except those outside of development area or near the development limit are to be removed.

3.4 Trees to Replant (Replacement)

Replacement planting requirements must still be negotiated with the Town of Erin and will be coordinated into a Landscape Plan at the Design Stage.

3.5 Trees to Transplant

The only area where the stock of species is valuable enough to consider transplanting and where exists the appropriate sizing where transplanting may be successful is at the east area of proposed Block 4 (Swim Pond). Due to the extremely large and long slope where all of these tree exist and the density of which they have grown, it is therefore not feasible to transplant any trees. All other areas on the property have trees that are too large, are considered invasive species, or are among other trees where transplanting would be too difficult to achieve with roots being intertwined with other trees.

4.0 Tree Preservation, Protection and Management

4.1 Tree Protection

All trees scheduled to be *Preserved Protected & Maintained* or *Preserved & Protected* shall have their critical rooting zones protected with the installation of tree protection barriers. Tree protection barriers shall be installed as per Town of Erin Barriers Detail.

5.0 Conclusions and Recommendations

Based on all data collected from on-site field work and review of all site plans the following conclusions and recommendations are made and correspond with Tree Inventory in Appendix 1:

Conclusions	Recommendations
All trees within the development are to be removed except where tree protection is proposed.	Submit this plan to Town of Erin.
31 trees are to be preserved & protected to the full extent of minimum tree protection distances and maintained during construction.	Install tree protection barriers as shown in Tree Protection Plan Drawing TP-1 in appendix 2.
Replacement trees are to be determined with the Town of Erin.	Create Replanting Plan at Design Stage.

Attachments are as follows:

- Appendix 1 Tree Inventory
- Appendix 2 Tree Protection Plan Drawing TP-1

This 7 page Report was written by



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Part 1 and Part 2 Lot 26 Concession 7 Town of Erin - Tree Inventory August 31, 2021

Tag #	Common Name	Botanical Name	Diameter at Breast Height CM	Health Condition	Structural Condition	Notes	Recommendations Based on Site Plan and Assessment
1232	Sugar Maple	Acer saccharum	94	Good	Good	Along driveway to house.	Remove
1233	Sugar Maple	Acer saccharum	58	Good	Good		Remove
1234	Sugar Maple	Acer saccharum	79	Good	Average/Poor	Co-dominant, decay on West side.	Remove
1235	Sugar Maple	Acer saccharum	81	Good	Good		Remove
1236	Eastern White Cedar Hedge	Thuja occidentalis	10 to 30	Good	Good	Large Cedar Hedge – 54 trees in a row, approx. 200 ft.	Remove
1237	Manitoba Maple	Acer negundo	20x20x15x20	Good	Good		Remove
1238	Norway Spruce	Picea abies	20	Good	Good	On other side of hill.	Remove
1239	Manitoba Maple	Acer negundo	15-20	Good	Good	Clump of Manitoba Maple on old fence line, clump of 4 with 15-20 DBH CM.	Remove
1240	Manitoba Maple	Acer negundo	38	Good	Good	On fence line	Remove
1241	Basswood	Tilia americana	75x60x50x65x55	Good	Average/Poor	1 broken stem on neighbouring property near property line, hanging over property. Behind 3 rd house from the left.	Retain
1242	Basswood	Tilia americana	100	Average	Poor	Behind 2 nd house from west. Along fence line. Has cavity.	Retain
1243	Green Ash	Fraxinus pennsylvanica	34	Average	Average	On fence line. Behind 1 st house from the south west.	Retain
1244	Manitoba Maple	Acer negundo	37	Average	Poor	On fence line. Behind 1 st house from the south west.	Retain
1245	Manitoba Maple	Acer negundo	30	Average	Average	At south west corner	Remove
1246	Black Cherry	Prunus serotina	80	Poor	Average/Poor	Significant deadwood on western property line.	Retain
1247	Mountain Ash	Sorbus aucuparia	30x12x12	Good	Good		Retain
1248	White Ash	Fraxinus americana	25x20	Good	Good		Retain
1249	Black Cherry	Prunus serotina	30	Average	Average		Retain
1250	Black Cherry	Prunus serotina	40	Average	Average		Retain
1251	Basswood	Tilia americana	100	Average	Poor	Has major split and failure.	Retain
1252	Black Cherry	Prunus serotina	20	Good	Good	On boundary line.	Retain
1253	Black Cherry	Prunus serotina	30x30	Good	Good	On boundary line.	Retain
1254	White Ash	Fraxinus americana	28	Good	Good	On boundary line.	Retain
1255	Manitoba Maple	Acer negundo	50	Average	Average	On boundary line.	Retain
1256	Manitoba Maple	Acer negundo	30	Average	Average	On boundary line.	Retain
1257	Manitoba Maple	Acer negundo	30	Average	Average	On boundary line.	Retain
1258	Black Cherry	Prunus serotina	30-40	Average	Average	On boundary line.	Retain
1259	Black Cherry	Prunus serotina	37x15x15	Average	Average	On boundary line. Last one on the South West boundary line.	Retain
1260	Black Cherry	Prunus serotina	50	Average	Average		Retain
1261	Sugar Maple	Acer saccharum	55	Good	Good		Retain
1262	Black Cherry	Prunus serotina	40	Good	Good		Retain
1263	Black Cherry	Prunus serotina	50	Good	Good		Retain
1264	Sugar Maple	Acer saccharum	45	Good	Good		Retain
1265	Sugar Maple	Acer saccharum	45	Good	Good		Retain
1266	Sugar Maple	Acer saccharum	45	Good	Good		Retain
1267	Sugar Maple	Acer saccharum	45	Good	Good		Retain
1268	Sugar Maple	Acer saccharum	88	Good	Good		Remove
1269	Black Cherry	Prunus serotina	55	Average	Average	Broken branch in	Remove
1270	American Elm	Ulmus americana	47x47	Good	Good		Remove
1271	Basswood	Tilia americana	45x25x25	Good	Good		Remove
1272	Basswood	Tilia americana	45x25x25	Good	Good		Remove
1273	Mountain Ash	Sorbus aucuparia	28x22	Good	Good		Remove
1274	Black Cherry	Prunus serotina	30	Good	Good		Remove
1275	Basswood	Tilia americana	30x26	Good	Good		Remove
1276	Basswood	Tilia americana	35x40x33	Good	Good		Remove
1277	Basswood	Tilia americana	20x25x27	Good	Good		Remove
1278	Sugar Maple	Acer saccharum	26	Good	Good		Remove
1279	Manitoba Maple	Acer negundo	28x20x20	Good	Good	Surrounded by smaller Manitoba Maples	Remove
1280	Manitoba Maple	Acer negundo	28x20x20	Good	Good	Surrounded by smaller Manitoba Maples	Remove
1281	Manitoba Maple	Acer negundo	28x20x20	Good	Good	Surrounded by smaller Manitoba Maples	Remove
1282	Manitoba Maple	Acer negundo	28x20x20	Good	Good	Surrounded by smaller Manitoba Maples	Remove
1283	Black Cherry	Prunus serotina	25	Good	Good	Surrounded by smaller Manitoba Maples	Remove
1284	Apple Tree	Malus domestica	80	Dead	Dead		Remove
1285	Black Cherry	Prunus serotina	25	Good	Good		Remove
1286	Manitoba Maple	Acer negundo	25x20x20	Good	Good		Remove
1287	Black Cherry	Prunus serotina	35	Good	Good		Remove
1288	Manitoba Maple	Acer negundo	25	Good	Good		Remove
1289	White Ash	Fraxinus americana	38	Very Poor	Very Poor	50% dead	Remove
1290	Apple Tree	Malus domestica	30x30	Good	Good		Remove
1291	Black Cherry	Prunus serotina	24	Average	Average		Remove
1292	Manitoba Maple	Acer negundo	35	Average	Average		Remove
1293	Black Cherry	Prunus serotina	42	Average	Average		Remove
1294	American Elm	Ulmus americana	70	Average	Average		Remove
1295	Black Cherry	Prunus serotina	40x25x30	Average	Average		Remove
1296	Black Cherry	Prunus serotina	30	Average	Average	North of pathway, covered in vines.	Remove
1297	Black Cherry	Prunus serotina	40	Average	Average	North of pathway, covered in vines.	Remove
1298	Black Cherry	Prunus serotina	25	Average	Average	North of pathway, covered in vines.	Remove
1299	Mountain Ash	Sorbus aucuparia	20	Average	Average	North of pathway, covered in vines.	Remove
1300	Mountain Ash	Sorbus aucuparia	35	Average	Average	North of pathway, covered in vines.	Remove
1301	Sugar Maple	Acer saccharum	60	Good	Good		Remove

1302	Sugar Maple	Acer saccharum	60	Good	Good		Remove
1303	Sugar Maple	Acer saccharum	60	Good	Good		Retain
1304	Sugar Maple	Acer saccharum	60	Good	Good		Retain
1305	Sugar Maple	Acer saccharum	60	Good	Good		Retain
1306	Sugar Maple	Acer saccharum	60	Good	Good		Retain
1307	Sugar Maple	Acer saccharum	60	Good	Good		Retain
1308	Mountain Ash	Sorbus aucuparia	30	Poor	Poor		Remove
1309	Manitoba Maple	Acer negundo	20x15	Good	Good	Beside Mountain Ash	Remove
1310	Black Cherry	Prunus serotina	38	Average	Average		Remove
1311	Manitoba Maple	Acer negundo	70	Average	Average		Remove
Group 1	White Pine Plantation	Pinus strobus	10 to 20	Good	Good	Group 1 - Juvenile white pine, red pine, white spruce, manitoba maple, eastern white cedar, tamarack, & ash. Planted on top of slope to bottom of slope. Density, 1 for every 4 meter squared.	Remove
	Red Pine Plantation	Pinus resinosa	10 to 20	Good	Good	Group 1 - Juvenile white pine, red pine, white spruce, manitoba maple, eastern white cedar, tamarack, & ash. Planted on top of slope to bottom of slope. Density, 1 for every 4 meter squared.	Remove
	White Spruce Plantation	Picea glauca	10 to 20			Group 1 - Juvenile white pine, red pine, white spruce, manitoba maple, eastern white cedar, tamarack, & ash. Planted on top of slope to bottom of slope.	Remove
Group 2	Juvenile Red Pine	Pinus resinosa	20 - 30, and 10 - 20.	Good	Good	Starting at property line and half way down slope. 7 that are 20-30 DBH CM, 25 that are 10-20 DBH CM. The bigger pines are at the top of the hill.	Remove
Group 3	Norway Spruce & Scots Pine	Picea abies / Pinus sylvestris		Good	Good	2 Norway Spruce and 6 Scot's Pine on neighbouring property, 3 meters or greater from property line. Also, 3 Norway Spruce and 1 Manitoba Maple .	Retain
Group 4	Manitoba Maple	Acer negundo	10 to 20			9 Juvenile Manitoba Maples, 10 to 20 DBH CM.	Remove
Group 5	Manitoba Maple	Acer negundo	5 to 20	Average	Average	16 Juvenile Manitoba Maple	Remove
Group 6	Manitoba Maple	Acer negundo	5 to 20	Average	Average	3 Juvenile Manitoba Maple	Remove

Appendix 1: Typical Detail Drawings

NHF-400: Tree Protection Zone (TPZ) barriers

