

Randwood Hotel Resort

176 John Street, Niagara-on-the-Lake, Ontario

Tree Assessment Survey & Preservation Plan

Prepared for

Two Sisters Resorts Corp.



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1.0 Summary

In my professional opinion, there are no rare or endangered trees found on the property. The majority of the trees assessed on the site were initially planted under the supervision of Dunnington-Grubb. Since the initial landscape development of Randwood, it does not appear that many desirable native or exotic tree species have been planted in the interim period. As development of the site proceeds, it is important that an eclectic collection of native and exotic trees be planted in order to maintain and improve upon the current landscape identity of Randwood Estate.

The presence of numerous Norway maple (*Acer platanoides*) trees and white mulberry (*Morus alba*) plants are found in abundance over much of the site. Both are considered to be 'weedy' trees and both plants tend to be very invasive. The presence of Manitoba maple (*Acer negundo*) trees were also found during the site assessment. This native tree has a strong propensity to rapidly populate a property if given the chance to do so.

Several outstanding mature native Sugar maple (*Acer saccharum*), Shagbark hickory (*Carya ovata*), Eastern white pine (*Pinus strobus*), Red oak (*Quercus rubra*), Common sassafras (*Sassafras albidum*), Black walnut (*Juglans nigra*), Swamp white oak (*Quercus bicolor*), as well as a few Flowering dogwood (*Cornus florida*) trees were observed as noted in the tree assessment. Non-native trees included the Common horse-chestnut (*Aesculus hippocastanum*), Norway spruce (*Picea abies*), Austrian pine (*Pinus nigra*), London plane-tree (*Platanus x acerfolia*), European little-leaf linden (*Tilia cordata*), and Japanese snowbell (*Styrax japonica*) trees were identified and located during the tree assessment.

A total of 303 trees were botanically identified and an assessment of the health and condition of each tree was conducted. Only the trees in proximity to the proposed development were surveyed, as shown on the map accompanying this survey. This included all of the trees where the proposed hotel is to be located as well as the underground garage. Trees along the fire access roadway that needs to be widened to facilitate easy access to the interior of the property were also assessed. In addition, the trees along the road leading to the proposed underground garage were surveyed as well. Each tree was assigned a number and a recommendation was made for the preservation or removal of each plant (see Map 1).

It is my intent as the Landscape Architect for the project, to maintain and improve upon the existing landscape. It is also the expressed intent of the client to maintain the attractiveness of the site.

2.0 Introduction

Howard Grubb and Alfreda Dunnington emigrated to Canada in 1911 from England. Adapting the name Dunnington-Grubb, they set up their practice in Toronto as H.B and L.A Dunnington Grubb, Landscape Architects. This firm specialized in park and garden design, real estate and suburban development, civic art and town planning. Because of the limitations of ornamental plant material, Dunnington-Grubb started a plant nursery that later became Sheridan Nurseries in 1914. Three of the designs and masterplans of notable interest include University Avenue in Toronto, Oakes Garden Theatre in Niagara Falls, and Randwood located at 176 John Street in Niagara-on-the-Lake.

Randwood is by far the most outstanding estate property in Niagara. The site is characterized by a unique and botanically interesting collection of plant material as well as a tasteful amalgamation of eclectic design elements. This includes buildings, ornamentally styled steel gates, an attractive brick wall along John Street, water features, and strong axial lines. Howard Grubb described his design as “a world of fantasy, of make believe, where decorative nature under little control of art provides both pleasure and rest”. Randwood is truly a unique property. It is the intent of Two Sisters Resort Corp. to maintain and improve upon the uniqueness, charm, and mystery of this environment for years to come.

For over 50 years, I have marveled at the mystery and uniqueness of the property. As a School of Horticulture student from 1961-1964, I can vividly recall my first visit to the site. Years later, I can remember doing work for Calvin Rand and most recently for Gary Peterson and Trisha Romance. All of my past clients as well as my present client strongly believe in the preservation and improvement of the property. The landscape that is there today is to be preserved where possible. As many trees as possible will be retained to maintain the mystery and romance of the site once development occurs.

3.0 Overview and Landscape

Trees are the most dominant natural, landscape elements found on earth. Fortunately, the landscape of the Randwood Estate is characterized by a wonderful, eclectic collection of trees from North America, Europe, and Asia. No doubt, many of the mature trees currently found on the Randwood Estate originally came from Sheridan Nurseries. Trees found on the property from North American include magnificent specimens of White and Red Pine; an attractive Shagbark Hickory near the Carriage House; Canadian Hemlock; Red, Silver, and Sugar Maples; Red and Swamp White Oak; American Basswood; Honey locust; Bald Cypress; Easter Arborvitae; Ohio Buckeye; Black Walnut; and Bird Cherry to name a few specimen plants. Interestingly, the Carolina Silverbell, the Ohio Buckeye, Sassafras, and several wonderful, indigenous specimens of Flowering Dogwood are also intermittently scattered throughout the landscape. Another tree that is readily found on the property is the American White Ash. All of these trees will need to be removed due to the presence of the Emerald Ash Borer.

Several trees of European origin are also found on the property. The European Littleleaf Linden, Scot's and Austrian Pine, and Norway Maple trees can readily be found. The latter tree, because of its propensity to freely seed and colonize valuable landscape areas, should be removed and replaced with more appropriate plant material for the site. There are also several mature specimens of Norway Spruce trees. These giants tower almost 100 ft in height with their spreading and pendulous branches. One Silver Fir tree was also noted during my field observations. The Common Horsechestnut and Ruby Horsechestnut trees are ornamentally interesting, albeit, the presence of fruit on the former tree may be bothersome to some and perhaps a safety issue as well. An incredibly attractive Tricolor Beech tree was found west of the Devonian House.

Representative trees of the orient include the Ginkgo, the oldest tree on earth that has been carbon dated back millions of years. The Japanese Katsura is also present south of the proposed development and could be moved with a large tree spade. An attractive specimen of *Acer griseum*, the Paperbark Maple, is also found on the property. With its beautiful exfoliating bark, this is indeed a plant of interest. Last but not least, an excellent specimen of Japanese Cryptomeria is located near the Devonian House. This tree is one of the most unique and rare trees in Niagara. Chinese Dogwood are also present as are 'Bloodgood' Japanese Maple found at several locations on the site. Flowering Magnolia trees also grace the landscape.

The textural assessment of the landscape indicates that a truly distinct and unique landscape exists at Randwood. The stream that runs throughout the property is an important landscape design element that should not be disturbed. Steps should be taken to creatively and artistically alter the margin of the stream to improve upon the flow of water as well as to add visual and ornamental interest to the site. All existing Manitoba Maple and Red Mulberry trees should be removed, as both are invasive species and generally classified as 'weedy trees'. All garden elements including an

existing tea house and bridges used for both foot and vehicular traffic should be maintained.

From day one of my involvement in this project, the client and members of the design team have recognized and wholeheartedly endorsed the importance of maintaining the uniqueness of the property. This can be achieved for the most part by good architectural planning and landscape design. Only those trees that are undesirable, unsafe, and absolutely necessary to facilitate construction of the proposed development will be removed. Eventually when construction commences, strong site supervision and the establishment of meaningful construction limits will be established to ensure the ongoing health of the trees. A Landscape Planting Plan will also be a meaningful tool to ensure that the integrity of the landscape is maintained for future generations. A Landscape Planting Plan will be prepared during the design/review process.

John A. Morley

4.0 Terms

TERM	DEFINITION
Key	Refers to the number assigned to the tree as per the accompanying drawing
Latin name	Genus and species of plant identified using Manual of Woody Landscape Plants, M.A Dirr as referenced
Common name	Name assigned to plant using Manual of Woody Landscape Plants, M.A Dirr as referenced
Site/General Health	Observational measurement made by a qualified Landscape Architect/Horticulturalist at time of inspection. Vigour, twig elongation, bud development, foliar colour, and general appearance for species used to develop a qualitative figure
Structure	Observational measurement made by a qualified Landscape Architect at time of inspection. Signs of decay, poor structural habit, problem branches, hangers, soil disturbance, weak unions, etc. used to assign a qualitative figure
DBH	Diameter Breast Height (4'6"). Industry recognized standard for measurement of trees exceeding 4" caliper at 6" above soil level
Poor	Qualitative measure assigned by a qualified Landscape Architect or Arborist for the overall condition, health of a tree
Moderate	Qualitative measure assigned by a qualified Landscape Architect or Arborist for the overall condition, health of a tree
Good	Qualitative measure assigned by a qualified Landscape Architect or Arborist for the overall condition, health of a tree
Very good	Qualitative measure assigned by a qualified Landscape Architect or Arborist for the overall condition, health of a tree
Excellent	Qualitative measure assigned by a qualified Landscape Architect or Arborist for the overall condition, health of a tree
Deadwood	Deadwood larger than 1.5" which would pose a risk due to falling
Caliper	Refers to measurement taken 6" above soil level for trees equal to or less than 4" in diameter, or when an accurate measurement cannot be obtained at 4'6" due to multiple stems or trunk measurements

5.0 Arboriculture Experience

- Graduate Niagara Parks Commission School of Horticulture(Arboriculture internship-with NPC forestry crew)
- Recipient Botany Medal-highest standing in Plant Identification during three year program at NPC School of Horticulture
- BSc and MSc in Park Administration/Landscape Architecture(Texas Tech University).
- Set up two year program in Ornamental Horticulture at the Nova Scotia Agricultural College; Arboriculture key component of course (practical training/theory).
- Organized several two week long Arboriculture Short Courses for employees of the Nova Scotia Power Corporation on all aspects of Arboriculture.
- Director of Horticulture-Niagara Parks Commission 1984-1998.
- Responsible for all arboricultural activities of the NPC for all parklands exceeding 3500 acres, wood lots, golfcourses, and specialized areas of open space along the world-famous Niagara Parkway.
- Corporate member of the International Society of Arboriculture 1984-1998.
- Prepared several arboricultural reports for the City of Niagara Falls/Town of Niagara-on-the-Lake.
- Conducted Urban Arboriculture Report (Phase 1) for the Region of Niagara for Glendale Avenue in St. Catharines.
- Prepared arboriculture reports for Hynde-Paul & Associates(Quartek) in the past for several major estate properties in Niagara-on-the-Lake including Randwood.

I have in excess of 40 years of progressively responsible experience in all aspects of horticulture, arboriculture, parks planning and landscape architecture. I have specific practical training in arboriculture and have taught courses for several years at both the Nova Scotia Agricultural College in Truro, NS as well as at the Nova Scotia College of Art and Design in Halifax, NS. In the past, I have prepared Arboriculture Reports for site developments throughout the Niagara Peninsula, conducted tree appraisals for insurance claims, and conducted studies on specific urban forestry issues including health and tree care issues..

John A. Morley

2017 09 08

6.0 Tree Assessment Survey

*Preserve – P

*Remove - R

Tree No.	Latin name	Common name	Condition	Comments & Observations	Preserve/R remove*
A1	Acer saccharum	Sugar Maple	good to very good	37"DBH; magnificent specimen	P
A2	Juglans cinerea	Butternut	good	some minor pruning required	P
A27	Cornus florida ctv.	Flowering dogwood	good	5" DBH; minor pruning branches under tree	P
A28	Cornus florida ctv.	Flowering dogwood	very good to excellent	7.5" DBH; minor deadwood removal	P
A29	Carya cordiformis	Bitternut hickory	excellent	30"DBH; outstanding specimen tree, good form	P
A38	Pinus strobus	Eastern white pine	excellent	18"DBH, excellent condition	P
A42	Acer saccharum	Sugar maple	poor to fair	51.5"DBH; previous cavity, double trunk at 3m, cabling required, pruning	P
A46	Pinus strobus	White pine	excellent	32.5"DBH; minor pruning required, good form, outstanding specimen	P
A48	Cornus florida ctv.	Flowering dogwood		8.5"DBH; pruning required, mature tree	P
A49	Picea abies	Norway spruce	good to very good	19.5"DBH; good form, good structure	P
A50	Carya cordiformis	Bitternut hickory	good to very good	38"DBH; magnificent specimen, removal of deadwood necessary	P
A51	Tsuga canadensis	Eastern hemlock	excellent	16.5"DBH; good form, good structure	P
A52	Carya ovata	Shagbark hickory	excellent	25"DBH; minor pruning required	P
A53	Acer negundo	Boxelder maple	poor	20.5"DBH; weedy, invasive tree	R
A54	Malus sp	Crabapple ctv.	poor	13"DBH; trunk cavity, defoliates due to fungus	R
A55	Tilia americana	American linden	fair to good	12.5"DBH; pruning required	P
A60	Acer platanoides	Norway maple	poor	1"DBH; invasive, non-native tree	R
A61	Juglans regia	English walnut	good	18"DBH; prune out deadwood; structure fine; health is good	P
A62	Morus alba	White mulberry	poor	1"DBH; invasive seedling	R
A63	Picea abies	Norway spruce	good	16.5"DBH; minor deadwood	P

A64	Picea abies	Norway spruce	good	26"DBH; minor deadwood	P
A65	Acer saccharum	Sugar maple	good	21.5"DBH; some pruning necessary	P
A66	Acer saccharum	Sugar maple	fair to good	26"DBH; pruning in upper crown required, secondary inspection required in upper canopy to determine structural integrity	P
A67	Pinus nigra	Austrian pine	fair to good	19.5"DBH; some deadwood removal, relatively good specimen for species	P
A68	Quercus rubra	Red oak	fair to good	5.5"DBH; two central leaders	P
A69	Aesculus hippocastanum 'Baumannii'	'Bauman' Horse-chestnut	poor	10"DBH; pruning required, presence of 'leaf blotch'	P
A70	Acer platanoides	Norway maple	poor to good	20"DBH; some pruning required, mis-shapend	P
A71	Acer platanoides	Norway maple		28.5"DBH; two minor trunks emanating from base at 9', consider cabling for support	P
A72	Acer platanoides	Norway maple		26.5"DBH; some pruning required, mature specimen; eventually will be near entrance roadway	P
A73	Picea abies	Norway spruce	fair to good	21.5"DBH; minor pruning required, mature specimen, one-sided due to adjacent competition	P
A74	Acer saccharum	Sugar maple	good	38"DBH; minor lean to the east, good form, minor basal trunk cavity	P
A75	Morus alba	White mulberry	poor	1-3"DBH; numerous trunks emanating from base	R
A76	Picea abies	Norway spruce	poor	19"DBH; central leader missing, mature tree, remove to facilitate growth of two adjacent spruce trees	R
A77	Picea abies	Norway spruce	good	20.5"DBH; strong central leader, mature specimen	P
A78	Quercus rubra	Red oak	good to very good	24.5"DBH; minor pruning required	P
A79	Picea abies	Norway spruce	good	19"DBH; attractive specimen	P
A80	Picea abies	Norway spruce	good	22.5"DBH; mature specimen, minor deadwood removal	P
A81	Pinus nigra	White pine	poor	16.5"DBH; lots of deadwood along trunk, mature plant	P

A82	<i>Pinus sylvestris</i>	Scot's pine	poor	11.5"DBH; significant deadwood along trunk, remove to facilitate construction entrance roadway	R
A83	<i>Quercus rubra</i>	Red oak	very good	6.5"DBH; good form, a recent transplant	P
A84	<i>Pinus strobus</i>	White pine	excellent	4" DBH; magnificent specimen, minor branch removal, good form	P
A85	<i>Populus alba</i>	Silver-leaved poplar	good	36"DBH; prominent lean to west, some pruning required if retained	P
A86	<i>Quercus rubra</i>	Red oak	fair to good	6"DBH; 2 central leaders, minor pruning, recently transplanted on site	P
A87	<i>Juglans nigra</i>	Black walnut	good to very good	25"DBH; good form, good health	P
A88	<i>Cornus florida</i> ctv.	Flowering dogwood	good	35"DBH; minor pruning required	P
A88	<i>Juglans nigra</i>	Black walnut	excellent	9"DBH; some pruning required, attractive specimen, mature tree,	P
A89	<i>Pinus nigra</i>	Austrian pine	poor	12"DBH; pruning required	P
A90	<i>Aesculus hippocastanum</i>	Common Horse Chestnut	poor	'leaf blotch' present, pruning required	P
A91	<i>Platanus x acerifolia</i>	London Planetree	good to excellent	37"DBH; very attractive specimen	P
A92	<i>Quercus rubra</i>	Red oak	good	central leader not readily recognizable	P
B10	<i>Pinus strobus</i>	White pine	good	17.5"DBH; minor deadwood required; crooked main stem towards top of tree, has significant root zone in area of parking lot relocation	P
B100	<i>Pinus nigra</i>	Austrian pine	moderate to good	19.5"DBH; some pruning necessary	P
B101	<i>Tilia americana</i>	American linden	good	6.5"DBH; triple trunked from base	P
B102	<i>Acer saccharum</i>	Sugar maple	poor	23"DBH; decay on trunk, safety hazard at present	R
B103	<i>Fraxinus americana</i>	White ash	poor	infected with Emerald Ash Borer	R
B104	<i>Liquidambar styraciflua</i>	American sweetgum	good	10.5" DBH; health is good; structure is good; slight lean; remove suckers from base	P
B105	<i>Gleditsia triacanthos</i>	Honey locust	excellent	24"DBH; 6-7" thorns, safety hazard	R
B106	<i>Pinus strobus</i>	White pine	good to excellent	18"DBH; good form, some pruning required	P

B107	<i>Picea abies</i>	Norway spruce	good	25"DBH; mature specimen, removal due to site development	P
B108	<i>Pinus strobus</i>	White pine	good	16"DBH; attractive specimen	P
B109	already removed				
B11	<i>Aesculus hippocastanum</i>	European horse-chestnut	fair	22"DBH; presence of 'leaf-blotch', lots of suckers on lower trunk, large cavity in upper canopy, second inspection required	P
B110	<i>Pinus strobus</i>	White pine	good to excellent	16"DBH; good structure, minor stub/deadwood removal	P
B111	<i>Picea abies</i>	Norway spruce	excellent	29"DBH; good condition, health and form	P
B112	<i>Corya ovata</i>	Shagbark Hickory	Excellent	22.5"DBH; excellent condition, minor deadwood removal	P
B113	<i>Gleditsia triacanthos</i>	Honey locust	good	12"DBH; sharp dangerous thorns	R
B114	<i>Gleditsia triacanthos</i>	Honey locust	good	12"DBH; sharp dangerous thorns	R
B115	<i>Gleditsia triacanthos</i> 'Shademaster'	'Shademaster' Honey locust	good	14"DBH; sharp dangerous thorns	R
B116	<i>Gleditsia triacanthos</i>	Honey locust	moderate	9"DBH; sharp dangerous thorns	R
B117	<i>Gleditsia triacanthos</i>	Honey locust	excellent	31"DBH; sharp dangerous thorns	R
B118	<i>Tsuga canadensis</i>	Eastern hemlock	fair to good	20"DBH; double trunk at 1.2m, good form, good structure	P
B119	<i>Acer saccharum</i>	Sugar maple	fair	30.5"DBH; major basal trunk cavity, further testing to determine soundness of interior wood, slated for removal by Buchanan Tree Service - minimal dieback noted, removal to be reconsidered	P
B12	<i>Prunus serotina</i>	Black cherry	excellent	26"DBH; included bark in main union, consider cabling to brace main stem	
B120	<i>Carya ovata</i>	Shagbark hickory	poor	18"DBH; majority of crown missing, extensive trunk cavity	R
B121	<i>Prunus</i> spp.	Cherry ctv.	good	7.5"DBH; minor pruning required, small attractive tree	P
B122	<i>Larix decidua</i>	European larch	poor	10.5"DBH; minor pruning	P
B123	<i>Larix decidua</i>	European larch	poor	minor pruning required, good form, good structure	P
B124	<i>Carya ovata</i>	Shagbark	excellent	22.5"DBH; minor	P

		hickory		deadwood removal	
B125	<i>Picea abies</i>	Norway spruce	very good	17"DBH; excellent form	P
B126	<i>Metasequoia glyptostroboides</i>	Dawn redwood	excellent	26"DBH; minor deadwood removal	P
B127	<i>Metasequoia glyptostroboides</i>	Dawn redwood	excellent	26.5"DBH; excellent specimen	P
B128	<i>Pinus strobus</i>	White pine	excellent	16.5"DBH; good form, minor deadwood removal required	P
B129	<i>Pinus strobus</i>	White pine	excellent	9"DBH; good form, minor deadwood removal required	P
B13	<i>Morus alba</i>	White mulberry	good	17.5"DBH; minor structural pruning required, remove large suckers at base and limbs interfering with adjacent <i>Aesculus</i>	P
B130	<i>Pinus strobus</i>	White pine	excellent	23.5"DBH; good form, minor deadwood removal required	P
B14	<i>Aesculus hippocastanum</i>	Common horse-chestnut	good	21"DBH; presence of 'leaf blotch', good condition, good structure	P
B2	<i>Acer saccharum</i>	Sugar maple	poor	20.5"DBH; stability potentially compromised	R
B23	<i>Pinus strobus</i>	White pine	excellent	25.5"DBH; minor deadwood removal	P
B24	<i>Pinus strobus</i>	White pine	good	17"DBH: minor deadwood removal	P
B25	<i>Pinus strobus</i>	White pine	fair	9"DBH; minor deadwood removal required, significant competition with adjacent trees, marked for removal	P
B27	<i>Pinus strobus</i>	White pine	excellent	12.5"DBH; outcompeted by adjacent white pine, marked for removal, minor fissure on lower trunk and healing	R
B3	<i>Fraxinus americana</i>	White ash	poor	29"DBH; infected with Emerald Ash Borer, significant dieback	R
B30	<i>Pinus strobus</i>	White pine	good	28"DBH; stub and deadwood removal	R
B32	unable to locate			tree does not exist	
B33	<i>Quercus rubra</i>	Red oak	excellent	36"DBH; overall excellent condition, structure, minor pruning required, magnificent specimen	P
B34	unable to locate			tree does not exist	
B35	<i>Aesculus hippocastanum</i>	Common horse-chestnut	good	20"DBH; presence of 'leaf blotch', good condition, some selective pruning	P

				required, minor trunk cavities along base	
B36	Cornus florida ctv.	Flowering dogwood ctv.	good	2.5"DBH; minor pruning required	P
B37	Aesculus hippocastanum	European horse-chestnut	good	20"DBH; presence of 'leaf blotch', good condition, good structure	P
B38	Pinus sylvestris	Scot's pine	good	15"DBH; some deadwood removal required, neighbour's property	P
B39	Pinus sylvestris	Scot's pine	good	18"DBH; minor deadwood removal, located on neighbour's property	P
B4	Quercus rubra	Red oak	good	30.5"DBH; significant lean towards wall/roof; good condition but minor deadwood removal required - regular monitoring recommended	P
B46	Pinus strobus	White pine	good	good structure; good health	P
B47	Pinus strobus	White pine	excellent	21"DBH; attractive specimen	P
B49	Tsuga canadensis	Eastern hemlock	very good	15.5"DBH; minor deadwood removal	P
B5	Prunus spp	Cherry ctv.	good	9"DBH; good structure	P
B52	Quercus rubra	Red oak	good	9.5"DBH; minor pruning required, elevated canopy	P
B6	Pinus strobus	White pine	dead		R
B61	Cornus florida ctv.	Flowering dogwood	good	3-3.5"DBH; multiple trunks, good condition overall	P
B64	Cornus kousa 'chinensis'	Chinese dogwood	fair	2.5-3.5DBH; good pruning required to restore form	P
B65	Cornus kousa 'chinensis'	Chinese dogwood	fair	good pruning required to restore form	P
B68	Aesculus hippocastanum	European horse-chestnut	poor to fair	17.5"DBH; poor structure, presence of 'leaf blotch', pruning required, on neighbour's property - significant mechanical damage at base	R
B69	Pinus strobus	White pine	excellent	19"DBH; excellent form, on neighbour's property, stub removal	P
B7	Pinus strobus	White pine	fair	15"DBH; multiple leaders at top, good condition in terms of overall health	P
B70	Robinia spp	Locust ctv.	excellent	13.5"DBH; neighbour's property, excellent form/condition overall	P
B78	Cornus kousa 'chinensis'	Chinese dogwood	fair to poor	1.5-2.5"DBH; significant dieback	R

B79	Cornus kousa 'chinensis'	Chinese dogwood	good	1-3"DBH; multiple trunks, minor structural pruning	P
B8	Aesculus hippocastanum	European horse-chestnut	fair	25"DBH; presence of 'leaf-blotch', minor pruning required	P
B80	Sassafras albidum	Common sassafras	fair	17.5"DBH; pruning necessary	P
B81	Sassafras albidum	Common sassafras	good	20"DBH; some pruning required, remove lower branches for aesthetics	P
B83	Styrax japonica	Japanese snowbell	good	4"DBH; small tree	P
B84	Acer platanoides	Norway maple		35"DBH; non-native, remove and replace with more desirable tree	R
B85	Juglans nigra	Black walnut	good to excellent	35"DBH; very attractive specimen, pruning required	P
B86	Fraxinus americana	White ash	poor	39"DBH; neighbour's property, remove with neighbour's permission	R
B87	Acer platanoides	Norway maple	poor	16"DBH; poor form, remove and replace with more desirable species	R
B9	Robinia pseudoacacia	Black locust	excellent	30"DBH; excellent form overall and crown as well	P
B90	Cornus kousa 'chinensis'	Chinese dogwood	fair to poor	6"DBH; multiple trunks, minor structural pruning	P
B91	Cornus kousa 'chinensis'	Chinese dogwood	very good	minor structural deadwood removal required	P
B92	Styrax japonica	Japanese snowbell	very good	5"DBH; minor pruning required, attractive small tree	P
B93	Fraxinus americana	White ash	poor	4"DBH; subject of Emerald Ash Borer	R
B93	Styrax japonica	Japanses snowbell	excellent	attractive small tree	P
B94	Acer platanoides	Norway maple	fair to poor	25.5"DBH; some pruning required, poor form	P
B95	Fraxinus americana	White ash	poor	infected with Emerald Ash Borer	R
B96	Pinus nigra	Austrian Pine	Good	Good structure, good health, generally surrounded by underbrush	P
B97	Pinus strobus	White pine	poor to good	10"DBH; lots of small twiggy deadwood	P
B98	Acer platanoides	Norway maple	moderate to good	16.5"DBH; minor pruning required, one sided	P
B99	Acer platanoides	Norway maple	good	19.5"DBH; pruning required	P
C1	Prunus spp	Cherry cv.	fair to good	7.5"DBH; minor structural pruning required, removal of minor deadwood	P
C10	Picea abies	Norway spruce	good	18"DBH; good structure, good form, remove minor	P

				deadwood	
C11	<i>Picea abies</i>	Norway spruce	fair	15"DBH; numerous dead branches on trunk due to competition from adjacent spruce	R
C12	<i>Picea abies</i>	Norway spruce	fair	16.5"DBH; remove, within footprint of building	R
C13	<i>Picea abies</i>	Norway spruce	fair	16.5"DBH; within/immediately adjacent to footprint of building	R
C14	<i>Juglans nigra</i>	Black walnut	poor	9.5"DBH; quadruple trunk from base; prune out deadwood; remove smallest trunk	P
C15	<i>Pinus strobus</i>	White pine	good	6.5"DBH; good form and structure, remove seedling Norway Maple at base	P
C16	<i>Picea abies</i>	Norway spruce	good	23.5"DBH; mature specimen, minor pruning required	P
C17	<i>Picea abies</i>	Norway spruce	fair	15"DBH; within footprint of building	R
C18	<i>Fraxinus americana</i>	White ash	poor	33.5"DBH; infected with Emerald Ash Borer	R
C19	<i>Fagus sylvatica</i>	European beech	excellent	12"DBH; double leadered, excellent health, fair structure with minor included bark	P
C2	<i>Picea abies</i>	Norway spruce	good	19"DBH; good condition, good form	R
C20	<i>Picea pungens</i>	Blue spruce	poor	8.5"DBH; remove to make room for copper beech, numerous dead branches and shaded out	R
C21	<i>Sorbus aucuparia</i>	European mountain-ash	dead	dead	R
C22	<i>Picea abies</i>	Norway spruce	good	20"DBH; mature specimen, good structure and good form	P
C23	<i>Picea abies</i>	Norway spruce	fair	20.5"DBH; double leader, remove due to location within proposed footprint of building	R
C24	<i>Cornus kousa</i> 'Chinensis'	Chinese dogwood	good	3"DBH minor deadwood removal required, good condition and structure	P
C25	<i>Cornus florida</i>	Flowering dogwood	poor	6"DBH; poor structure, fair health, covered with grape vines; some pruning required; removal of grape vines	P
C26	<i>Cornus florida</i>	Flowering dogwood	poor	4.5"DBH; some minor removing required, remove	P

				adjacent mulberry tree	
C27	Quercus rubra	Red oak	excellent	26.5"DBH; beautiful specimen, good form and structure, remove minor deadwood and clearance prune away from Coach House	P
C28	Picea pungens	Blue spruce	poor	5.5"DBH; numerous dead branches crowded out by surrounding vegetation	P
C29	Morus alba	White mulberry	Poor	3-8"DBH; poor form, several trunks	R
C3	Picea abies	Norway spruce	good	21"DBH; minor deadwood required	P
C30	Acer negundo	Boxelder maple	Poor	3.5" DBH; considered weedy tree	R
C31	Cornus florida	Flowering dogwood	Poor	2.5"DBH; poor form, multi-stem	R
C32	Tsuga canadensis	Eastern hemlock	excellent	11"DBH; good form, minor pruning required, good structure	P
C33	Carya ovata	Shagbark hickory	excellent	31"DBH; magnificent specimen; nature plant; excellent form; remove to facilitate construction of underground parking garage	R
C34	Tsuga canadensis	Eastern hemlock	poor	2-4.5"DBH; triple trunked, remove adjacent Manitoba maple; pruning required	P
C35	Picea omorika	Serbian spruce	poor to moderate	7"DBH; majority of lower branches dead due to lack of light; remove compacting shrubs	R
C36	Cercis canadensis	Eastern redbud	good	2.5"DBH; minor pruning required; natural Carolinian tree	R
C37	Picea omorika	Serbian spruce	poor	4"DBH; dead for the most part	R
C38	dead tree			9"DBH; remove	R
C39	Pinus strobus	White pine	excellent	21.5"DBH; excellent specimen; good condition some stub removal on trunk	P
C4	Picea abies	Norway spruce	poor	17"DBH; remove, within/immediately adjacent to footprint of building	R
C40	no tree present			already removed	R
C41	no tree present			already removed	R
C42	Fraxinus americana	White ash	poor	infected with Emerald Ash Borer	R

C43	no tree present			already removed	R
C44	no tree present			already removed	R
C45	no tree present			already removed	R
C46	Morus alba	White mulberry	poor	15"DBH; introduced exotic; two stems; seedling has multiple stems significantly included bark and likely to fail	R
C47	Acer negundo	Boxelder maple	good	20"DBH; fair structure minor included bark, likely a seedling	R
C48	no tree present			already removed	R
C49	no tree present			already removed	R
C49	Thuja spp	Arborvitae	excellent	5.5"DBH; excellent health and condition	P
C5	Picea abies	Norway spruce	good	18.5"DBH; good structure, good form, remove minor deadwood	P
C50	Thuja spp	Arborvitae	excellent	4"DBH; fair structure; double leadered and good screen	P
C52	Morus alba	White mulberry	poor	8.5"DBH; poor structure, invasive tree, slime flux	R
C53	Castanea mollissima	Chinese chestnut	poor	poor health; poor condition, pruning required, relatively uncommon to Niagara	P
C54	Pinus nigra	Austrian pine	poor	10.5"DBH; quite a bit of deadwood	P
C55	Prunus serotina	Black cherry	good	12"DBH; good structure	P
C56	Fraxinus americana	White ash	poor	16"DBH; infected with Emerald Ash Borer	R
C57	Castanea mollissima	Chinese chestnut	poor	15"DBH; posion ivy on trunk, poor condition, considerable pruning required	P
C58	Fraxinus americana	White ash	poor	6.5"DBH; infected with Emerald Ash Borer	R
C59	Pinus nigra	Austrian pine	poor to fair	12.5"DBH; some remedial pruning required to remove deadwood and competitive undergrowth, single direct cabling required	P
C6	Picea abies	Norway spruce	poor	10.5"DBH; remove, within footprint of building	R
C60	Juglans nigra	Black walnut	good	11.5"DBH; minor pruning required	P
C61	Ulmus parvifolia	Chinese elm	poor	18.5"DBH; double trunk at 2m, moderate included bark interfering with more desirable Black walnut	R

C62	Ulmus parvifolia	Chinese elm	poor	considerable pruning required throughout; very invasive; preserve as screening	R
C63	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C64	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C65	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C66	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C67	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C68	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C69	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C7	Fraxinus americana	White ash	poor	23"DBH; infected with Emerald Ash Borer	R
C70	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C71	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C72	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C73	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C74	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree, non-native, remove to facilitate construction of boundary wall	R
C75	Ulmus parvifolia	Chinese elm	poor	“weedy” invasive tree,	R

				non-native, remove to facilitate construction of boundary wall	
C76	<i>Ulmus parvifolia</i>	Chinese elm	poor	"weedy" invasive tree, non-native, remove to facilitate construction of boundary wall	R
C77	<i>Carya ovata</i>	Shagbark hickory	poor	2"DBH; double stem	P
C78	<i>Pinus nigra</i>	Austrian pine	poor	12.5"DBH; double stem at 4m; significantly included bark; remove deadwood; cable installation to be considered	P
C79	<i>Pinus nigra</i>	Austrian pine	poor	13.5"DBH; considerable deadwood; multiple leaders with included bark; overgrown with grape vines	P
C8	<i>Juglans cinera</i> hybrid	Butternut	excellent	26"DBH; good structure, health, minor deadwood	P
C80	<i>Thuja</i> spp	Arborvitae	good	8"DBH; good health/condition/screen	P
C81	<i>Thuja</i> spp	Arborvitae	good	6.4"DBH; good health/condition/screen	P
C82	<i>Thuja</i> spp	Arborvitae	good	7.5"DBH; good health	P
C83	<i>Thuja</i> spp	Arborvitae	good	7"DBH; good health	P
C84	<i>Thuja</i> spp	Arborvitae	excellent	6"DBH; good screen	P
C85	<i>Thuja</i> spp	Arborvitae	excellent	7"DBH; excellent health and condition	P
C86	<i>Acer negundo</i>	Boxelder maple	poor	3.5-7"DBH; multiple trunks, invasive	R
C87	<i>Acer pseudoplatanus</i>	Sycamore maple	poor	11"DBH; crown is thinning, poor structure, non-native invasive tree	R
C88	<i>Juglans cinera</i>	Butternut	good	6"DBH; minor pruning required	P
C9	<i>Styrax japonica</i>	Japanese snowbell	good to excellent	6"DBH; minor pruning required, strong branch unions	P
D1	<i>Gleditsia triacanthos</i> 'Shademaster'	'Shademaster' Honey locust	excellent	22"DBH; minor branch removal	P
D10	<i>Juglans nigra</i>	Black walnut	poor	4"DBH; seedling tree	P
D11	<i>Taxus</i> spp.	Japanese Yew	good	3-8"DBH; remove grape vines from tree canopy and trunk; triple trunked tree	P
D12	<i>Acer platanoides</i>	Norway maple	good	21.5"DBH; remove branches overhanging roof; minor corrective pruning	P
D13	<i>Acer platanoides</i>	Norway maple	good	22"DBH; remove to	R

				facilitate construction of hotel, within/immediately adjacent to building envelope	
D14	<i>Tilia cordata</i>	Little-leaf linden	poor	34"DBH; extensive trunk decay at 1.5m	R
D15	<i>Salix matsudana tortuosa</i>	Dragon's claw willow	good	4"DBH; seedling tree in centre of walkway	R
D16	<i>Morus rubra</i>	Red mulberry	poor	3"DBH; poor form; being overtaken by grape vines; invasive	R
D18	<i>Tilia cordata</i>	Little-leaf linden	excellent	29"DBH; mature specimen, minor deadwood removal, located within footprint of building	R
D19	<i>Fraxinus americana</i>	White ash	dead	19.5"DBH; dead	R
D2	<i>Quercus macrocarpa</i>	Bur oak	good	16"DBH; some minor branch removal	P
D20	<i>Acer platanoides</i> 'Schwedleri'	'Schwedler' Norway maple	poor	11"DBH; frost crack damage	R
D21	<i>Acer platanoides</i>	Norway maple	moderate to good	17"DBH; relatively attractive specimen for species	P
D22	<i>Acer saccharinum</i>	Silver maple	dead	24"DBH; tree has fallen to the ground	R
D23	<i>Acer platanoides</i>	Norway maple	good	20"DBH; remove to facilitate construction of hotel (underground parking)	R
D24	<i>Acer platanoides</i>	Norway maple	poor to moderate	16"DBH; remove to facilitate construction of hotel (underground parking)	R
D25	<i>Acer platanoides</i>	Norway maple	poor	18"DBH; remove to facilitate construction of hotel (underground parking)	R
D26	<i>Gleditsia triacanthos</i> 'Shademaster'	'Shademaster' Honey locust	excellent	20"DBH; minor pruning required, slight lean	P
D27	<i>Quercus bicolor</i>	Swamp White oak	excellent	20.5:DBH; minor branch pruning required	P
D28	<i>Ginkgo biloba</i>	Ginkgo	excellent	10"DBH	P
D2A	<i>Quercus bicolor</i>	Swamp white oak	Excellent	Minor pruning; good form	P
D3	<i>Tsuga canadensis</i>	Eastern hemlock	good	16" DBH	P
D30	<i>Aesculus hippocastanum</i>	Eastern horse-chestnut	good	34"DBH; 3 trunks at 2.5m; should be cabled; mature specimen; minor pruning required	P
D31	<i>Picea abies</i>	Norway spruce	good	28.5"DBH; mature specimen; minor dead	P

				branch removal	
D32	<i>Picea abies</i>	Norway spruce	moderate to good	19.5"DBH; mature plant	P
D33	<i>Gleditsia triacanthos</i> 'Shademaster'	'Shademaster' Honey locust	moderate	12.5"DBH; located along side entrance to underground parking	P
D34	<i>Gleditsia triacanthos</i> 'Shademaster'	'Shademaster' Honey locust	poor to moderate	14.5"DBH; minor pruning required, poor form	P
D35	<i>Acer platanoides</i>	Norway maple	poor	25.5"DBH; deadwood in crown of tree; requires pruning; trunk cavity on 3 major branches	P
D36	<i>Thuja occidentalis</i>	Eastern Arborvitae	excellent	12"DBH; native tree, remove to facility construction of underground parking facility	R
D37	<i>Fagus sylvatica</i> 'purpurea'	European purple-leaf beech	excellent	8.5"DBH; tree spade to alternative location - site location if available	P
D38	<i>Acer platanoides</i>	Norway maple	very good	18"DBH; non-native, invasive, remove to facilitate construction of underground parking facility	R
D39	<i>Gleditsia triacanthos</i> 'Shademaster'	'Shademaster' Honey locust	excellent	21"DBH; remove to facilitate construction of underground parking lot	R
D4	<i>Picea abies</i>	Norway spruce	good	30"DBH; mature dead specimen; limited dead branch removal required	P
D40	<i>Liquidambar styraciflua</i>	American sweetgum	excellent	10"DBH; beautiful specimen	P
D41	<i>Liquidambar styraciflua</i>	American sweetgum	excellent	10"DBH; beautiful specimen	P
D42	<i>Amelanchier canadensis</i>	Canada Serviceberry	moderate to good	4.5"DBH; minor branch/sucker growth removal	P
D43	<i>Amelanchier canadensis</i>	Canada Serviceberry	good	5"DBH; minor branch/sucker growth removal	P
D44	<i>Acer platanoides</i>	Norway maple		16"DBH; plenty of dead wood; damage on trunk	R
D45	<i>Tilia cordata</i>	Little-leaf linden	excellent	32.5"DBH; minor pruning required	P
D46	<i>Liquidambar styraciflua</i>	American sweetgum	moderate	8.5"DBH; minor pruning required	P
D47	<i>Tilia cordata</i>	Little-leaf linden	excellent	32"DBH; cathedral-like canopy; excellent form; minor pruning required	P
D48	<i>Cercidiphyllum japonicum</i>	Japanese Katsura tree	moderate to good	11"DBH multi branched at 30"	P
D49	<i>Acer platanoides</i>	Norway maple	poor	6"DBH; seedling tree	P

D5	Acer saccharinum	Silver maple	good	25"DBH; attractive specimen for species; located within/immediately adjacent to building envelope	R
D50	Acer platanoides	Norway maple	poor to moderate	12.5"DBH; seedling tree	R
D51	Acer saccharinum	Silver maple	moderate	35.5"DBH; pruning required, mature specimen	P
D52	Acer rubrum	Red maple	poor	5"DBH; triple trunked at 18"; remove to facilitate construction of underground garage/boundary wall	R
D53	Morus alba	White mulberry	poor	1.5-2"DBH; multiple trunks emanating from base of tree; remove to facilitate construction of underground garage/boundary wall	R
D54	Acer platanoides	Norway maple	poor	2"DBH; triple trunked at ground level; non-native; remove to facilitate construction of underground garage/boundary wall	R
D55	Tilia cordata	Little-leaf linden	poor	1.5-2"; triple trunked at ground level; remove to facilitate construction of underground garage/boundary wall	R
D56	Chamaecyparis lawsoniana	'Lawson's' false cypress	poor	10.5"DBH; numerous dead branches due to lack of light; not worth saving; remove to facilitate construction of underground garage/boundary wall	R
D57	Morus alba	White mulberry	poor	11"DBH; very invasive; on neighbor's property - remove if permission granted	R
D58	Acer platanoides	Norway maple	poor to moderate	19"DBH; non-native, invasive, major trunk decay at base	R
D59	Acer platanoides	Norway maple	poor to moderate	19"DBH; significant deadwood, trunk decay	R
D6	Tilia cordata	Little-leaf linden	excellent	7.75"DBH; good form, healthy specimen	P
D60	Pinus nigra	Austrian pine	good	29"DBH; non-native plant, provides year-round seasonal interest	P
D61	Juglans nigra	Black walnut	good	23"DBH; mature tree	P
D62	Fraxinus	White ash	poor	6"DBH; strangled by vines;	R

	americana			remove due to Emerald Ash Borer	
D63	Fraxinus americana	White ash	poor	7"DBH; neighbour's property; remove with permission	R
D64	Fraxinus americana	White ash	poor	10"DBH; susceptible to Emerald Ash Borer on neighbour's property	R
D65	Juglans regia	English walnut	moderate	9.5"DBH; minor pruning required; remove to facilitate construction of underground garage/boundary wall	R
D66	Juglans regia	English walnut	good	12.5"DBH; minor pruning required; remove to facilitate construction of underground garage/boundary wall	R
D68	Picea abies	Norway spruce	moderate	20"DBH; neighbour's property; some branch removal required	P
D69	Pinus sylvestris	Scot's pine	moderate to good	13"DBH; neighbour's property; some branch removal required	P
D7	Tilia cordata	Little-leaf linden	excellent	7.5"DBH; good form, healthy specimen	P
D70	Pinus sylvestris	Scot's pine	moderate to good	18"DBH; neighbour's property; some branch removal required; remove to facilitate construction of wall	R
D71	Abies concolor	White fir	moderate	8"DBH; remove adjacent Chamaecyparis (west of transformer)	R
D72	Abies concolor	White fir	moderate to good	9"DBH; remove to facilitate construction of hotel	R
D73	Abies concolor	White fir	poor	7"DBH; one sided due to lack of light; competition from adjacent plants	P
D74	Chamaecyparis pisifera 'filifera'	Thread Sawara False Cypress	good	7.5"DBH; good condition for species	P
D75	Chamaecyparis lawsoniana	'Lawson's' false cypress	poor	9"DBH; numerous dead branches due to lack of light; not worth saving	R
D8	Tilia cordata	Little-leaf linden	excellent	7"DBH; good form, healthy specimen	P
D9	Acer platanoides 'Schwedleri'	'Schwedler' Norway maple	good	19.5"DBH; some corrective pruning	P

Boxwood hedge (south of Coach House):

Adaptive re-use of Cultural Heritage Committee that is also supported by the "Cultural Heritage Consultant". Hedge to be carefully removed, re-planted, and maintained to

facilitate plant re-establishment. Hedge to be re-located approximately 20 feet to the west in order to maintain plant screening for adjacent neighbours.