



Dendron Forestry Services

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Tree Information Report v2.0

Submitted as part of Committee of Adjustment Application to the City of Ottawa

Address: 149 King George Street

Date of Site Visit: February 26, 2024

Date of Report: April 4, 2023

Prepared by: Kevin Myers, ISA Certified Arborist®
info@dendronforestry.ca

Client: Vinci Education, Dan Yang
149 King George
Contact: alison@tsgdi.ca

Committee of Adjustment

Received | Reçu le

Revised | Modifié le : 2024-05-02

City of Ottawa | Ville d'Ottawa

Comité de dérogation

This Report must be read in its entirety, including the Assumptions and Limiting Conditions attached herein.

Purpose of the Report

The purpose of this report is to provide the client with a detailed description of all protected trees on site as per the City of Ottawa's Tree Protection By-law No. 2020-340. This report is part of a Committee of Adjustment application to the City of Ottawa and considers the impact that the proposed development will have on the trees. The assessment of the suitability of tree retention is based on the information provided at the time of report preparation which includes:

- Survey by Annis, O'Sullivan, Vollebakk Ltd., dated August 9, 2022
- Site plan by Evolution Design and Drafting, dated January 12, 2024

This assessment does not consider additional factors that could influence tree retainability such as:

- site grading, and requirement for retaining walls and/or swales
- installation of services for the new units
- capping of existing water and sewer services
- installation of gas lines for the new units
- site access

The potential for retaining those tree(s) identified for retention in this report may change as more information on the site-specific construction details is provided during the building permitting phase. For those trees that are recommended for retention, mitigation measures are provided to reduce the impact during construction. It should be noted that the construction phase includes all site works that could impact trees, from the capping of services at the beginning to the final landscaping steps at the end.



Methodology

The following materials were reviewed as part of this report:

- Survey
- Site plan
- GeoOttawa tree inventory layer and aerial photography
- Google© Street View imagery – various years

A site visit was conducted to collect the following information from each tree classified as protected under the City of Ottawa’s Tree Protection By-law No. 2020-340:

- Diameter at breast height (1.3 m from grade)
- Species
- Tree health
- Relevant measurements such as distance to the existing structures like fences, driveways, etc

Tree Information

The following is an inventory of all trees that are protected under City of Ottawa Tree Protection (By-law No. 2020-340) on the site and adjacent City property. This includes Distinctive Trees (private trees with a diameter at breast height (dbh) of 30 cm or greater) and city-owned trees of all sizes. It also includes Distinctive Trees on adjacent properties whose Critical Root Zone (CRZ) extend into the subject area. The CRZ is an area around the trunk with a radius equivalent to 10 times the diameter of the trunk. This does not take into account infrastructure such as buildings and asphalt and assumes the tree has no restrictions on root growth.

Tree ¹	Species	Diameter at breast height (cm)	Ownership ²	Condition	Action	Recommendations
1	Red Oak (<i>Quercus rubra</i>)	22	City	Fair/Good: snow piled approx. 1.3m high against trunk; crown looked healthy	Retain	No action required: far enough from construction that CRZ will not be impacted
2	Red Oak (<i>Quercus rubra</i>)	21	City	Fair: possible girdling roots; small seams and cracks throughout stem; old girdling wound on stem	Retain	No action required: far enough from construction that CRZ will not be impacted
3	Red Oak (<i>Quercus rubra</i>)	25	City	Good/Fair: old girdling wound on stem	Retain	No action required: far enough from construction that CRZ will not be impacted
4 ³	Red maple (<i>Acer rubrum</i>)	19	Private - Subject property	Good/Fair	Retain	Not protected under by-law 2020-340. Suggest retention and protection as per City of Ottawa Tree Protection Specifications (March 2021) to provide canopy post-construction



5 ³	Red maple (<i>Acer rubrum</i>)	17	Private - Subject property	Good/Fair	Retain	Not protected under by-law 2020-340. Suggest retention and protection as per City of Ottawa Tree Protection Specifications (March 2021) to provide canopy post-construction
6 ³	Red maple (<i>Acer rubrum</i>)	17	Private - Subject property	Good/Fair	Retain	Not protected under by-law 2020-340. Suggest retention and protection as per City of Ottawa Tree Protection Specifications (March 2021) to provide canopy post-construction
7 ³	Crabapple (<i>Malus spp.</i>)	26	Private – Subject property	Good/Fair	Remove	Not protected under by-law 2020-340. Remove: within building footprint

¹ Please refer to the attached Tree Information map for tree numbers. Note that this includes a tree layer added to the LDP (in pdf format) provided by the client. This layer includes only information about the trees and the original LDP is not altered in this process.

²Ownership of the tree in this report is based on the information provided and should not be used as a determination of ownership. For ownership disputes, a survey should be relied on. For boundary trees, consent from the adjacent property owner is required for removal as part of the application.

³The location of these trees was not provided and has been estimated

Proposed Development and Preserved Vegetation

Trees 4-6 are technically too small to be protected under By-law 2020-340 however they are all trees in good health that appear to be growing well. Retaining and protecting these trees would allow for an excellent opportunity to have established canopy on the site post-construction. As detailed in the Tree Information Map below, these trees should all be far enough from construction to be minimally impacted if protected properly.

Update for version 2.0: Tree 7 was originally recommended for protection, but due to the new site plan, preservation of this tree will be impossible. The tree is not protected under the bylaw and has only been included in this updated report to remain consistent with the first version.

Tree Protection

Prior to any site works, protective fencing should be installed around the Tree Protection Areas (TPA) as indicated in the attached Tree Information Map and maintained until all construction on site has been completed as per the **City of Ottawa Tree Protection Specifications (March 2021)**. Within the fenced area, the following tree protection guidelines should be applied:

- Do not change the grade
- Do not store construction material
- Do not operate machinery
- Do not convert to hard surface or change the landscaping
- Do not excavate unless it is a method that has been pre-approved by the City
- Do not place signs, notices or posters to any tree
- Do not damage the root system, trunk, or branches of any tree
- Direct the exhaust away from the tree



The tree protection fencing must be 1.2 m in height and constructed of a rigid or framed material (e.g. modulus – steel, plywood hoarding, or snow fence on a 2”X4” wood frame) with posts 2.4 m apart such that the fence location cannot be altered. All supports must be placed outside of the CRZ and installation must minimize damage to existing roots.

If the fenced tree protection area must be reduced to facilitate construction, *one* of the following mitigation measures should be applied:

- Place a layer of 6-12 inches (15 to 30 cm) of woodchip mulch to the area
- Apply ¾ (2 cm) inch plywood, or road mats over a 4+ inch (10 cm) thick layer of the wood chip mulch
- Apply 4-6 inches (10 to 15 cm) of gravel over a taut, staked, geotextile fabric

The undersigned personally inspected the property and issues associated with this report on March 30, 2023. On Behalf of Dendron Forestry Services,

Kevin Myers, MFC
ISA Certified Arborist®, ON-2907A
Dendron Forestry Services
info@dendronforestry.ca
(613) 805-9663 (WOOD)



Figure 1 - Trees 2 and 3: City red oaks to be retained



Figure 2 - Tree 1: City red oak to be retained



ASSUMPTIONS AND LIMITING CONDITIONS

Intended Use of the Report

This Report was prepared by Dendron Forestry Services (hereafter “Dendron”) at the request of the Client. The results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report are to be used solely for the purposes outlined within this Report. All other uses are impermissible and unintended, unless specifically stated in writing in the Report.

Intended User of the Report

This Report was prepared by Dendron for the exclusive use of the Client and may not be used or relied upon by any other party. All other users are unintended and unauthorized, unless specifically stated in writing in the Report.

Limitations of this Report

This Report is based on the circumstances and on-site conditions as they existed at the time of the site inspection and the information provided by the Client and/or third parties to Dendron. On-site conditions may limit the extent of the on-site inspection(s) conducted by Dendron, including weather events such as rain, flooding, storms, winds, tornados, snowfall, snow cover, hail; obstructions including fencing, dwellings, buildings, sheds, plants, and animals; lack of access to the entire perimeter of the tree due to adjacent properties; the shape of the tree; and accessibility of the tree crown, branches, trunk, or roots for examination.

In the event that information provided by the Client or any third parties, including but not limited to documents, records, site and grading plans, permits, or representations or any site conditions are updated or change following the completion of this Report, this Report is no longer current and valid and cannot be relied upon for the purpose for which it was prepared. Dendron and its agents, assessors, and/or employees are not liable for any damages, injuries, or losses arising from amendments, revisions, or changes to the documents, records, site and grading plans, permits, representations, or other information upon which Dendron relied in preparing this Report.

No assessment of any other trees or plants has been undertaken by Dendron. Dendron and its agents, assessors, and/or employees are not liable for any other trees or plants on or around the subject Property except those expressly identified herein. The results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report apply only to the trees identified herein.

Trees and plants are living organisms and subject to change, damage, and disease, and the results, observations, interpretations, analysis, recommendations, and conclusions as set out in this Report are valid only as at the date any inspections, observations, tests, and analysis took place. No guarantee, warranty, representation, or opinion is offered or made by Dendron as to the length of the validity of the results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report. As a result the Client shall only rely upon this Report as representing the results, observations, interpretations, analysis, recommendations, and conclusions that were made as at the date of such inspections, observations, tests, and analysis. The trees discussed in this Report should be re-assessed periodically and at least within one year of the date of this Report.

No Opinion regarding ownership of the Tree

This Report was not prepared to make a determination as to ownership of the subject tree(s). Where ownership of the subject tree(s) is identified within this Report, said identification is based on the information provided by the Client and third parties, including surveys, permits, and site and grading plans and may not be relied upon as a guarantee, warranty, or representation of ownership.

Assumptions

This Report is based on the circumstances and conditions as they existed at the time of the site inspection and the information provided by the Client and/or third parties to Dendron. Where documents, records, site and grading plans, permits, representations, and any other information was provided to Dendron for the purpose of preparing this Report, Dendron assumed that said information was correct and up-to-date and prepared this Report in reliance on that information. Dendron and its agents, assessors, and/or employees, are not responsible for the veracity or accuracy of such information. Dendron and its agents, assessors, or employees are not liable for any damages, injuries, or losses arising from inaccuracies, errors, and/or omissions in the documents, records, site and grading plans, permits, representations, or other information upon which Dendron relied in preparing this Report.

For the purpose of preparing this Report, Dendron and its agents, assessors, and/or employees assumed that the property which is the subject of this Report is in full compliance with all applicable federal, provincial, municipal, and local statutes, regulations, by-laws, guidelines, and other related laws. Dendron and its agents, assessors, and/or employees are not liable for any issues with respect to non-compliance with any of the above-referenced statutes, regulations, bylaws, guidelines, and laws as it may pertain to or affect the property to which this Report applies.

For the purpose of preparing this Report, Dendron and its agents, assessors, and/or employee assumed that there are no hidden or unapparent conditions affecting the results, observations, interpretations, analysis, recommendations, and conclusions contained within this Report.

No Publication

The Client acknowledges and agrees that all intellectual property rights and title, including without limitation, all copyright in this Report shall remain solely with Dendron Forestry. Possession of this Report, or a copy thereof, does not entitle the Client or any third party to the right of publication or reproduction of the Report for any purpose save and except where Dendron has given its prior written consent.

Neither all nor any part of the contents of this Report shall be disseminated to the public through advertising, public relations, news, sales, the internet or other media (including, without limitation, television, radio, print or electronic media) without the prior written consent of Dendron Forestry.



Implementing the Report Recommendations

Dendron and its agents, assessors, and/or employees accept no responsibility for the implementation of any part of this Report unless specifically requested to provide oversight on the implementation of the recommendations. In the event that inspection or supervision of all or part of the implementation of the within recommendations is requested, that request shall be in writing and the details agreed to in writing by both parties.

Dendron and its agents, assessors, and/or employees are not liable for any damages or injuries arising from the manner in which the recommendations in this Report are implemented, including failure to, incorrect, or negligent implementation of the recommendations.

Further Services

Neither Dendron nor any assessor employed or retained by Dendron for the purpose of preparing or assisting in the preparation of this Report shall be required to provide any further consultation or services to the Client, save and except as already carried out in the preparation of this Report and including, without limitation, to act as an expert witness or witness in any court in any jurisdiction unless the Client has first made specific arrangements with respect to such further services, including, without limitation, providing the payment of the Report's regular hourly billing fees.

Limits of Liability

In carrying out this Report, Dendron and its agents, assessors, and/or employees have exercised a reasonable standard of care, skill, and diligence as would be customarily and normally provided in carrying out this Report. While reasonable efforts have been made to ensure that the trees recommended for retention are healthy, no guarantees are offered, or implied, that these trees, or all parts of them will remain standing. It is professionally impossible to predict with absolute certainty the behaviour of any single tree or group of trees, or all their component parts, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential to fall, lean, or otherwise pose a danger to property and persons in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Without limiting the foregoing, no liability is assumed by Dendron for:

- a) any legal description provided with respect to the Property;
- b) issues of title and or ownership respect to the Property;
- c) the accuracy of the Property line locations or boundaries with respect to the Property; and
- d) the accuracy of any other information provided to Dendron by the Client or third parties;
- e) any consequential loss, injury or damages suffered by the Client or any third parties, including but not limited to replacement costs, loss of use, earnings and business interruption; and
- f) the unauthorized distribution of the Report.

The total monetary amount of all claims or causes of action the Client may have as against Dendron Forestry, including but not limited to claims for negligence, negligent misrepresentation, and breach of contract, shall be strictly limited solely to the total amount of fees paid by the Client to Dendron Forestry pursuant to the Contract for Services dated March 27, 2023, for which this Assessment was carried out.

Further, under no circumstance may any claims be initiated or commenced by the Client against Dendron or any of its directors, officers, employees, contractors, agents, assessors, or Assessors, in contract or in tort, more than 12 months after the date of this Report.

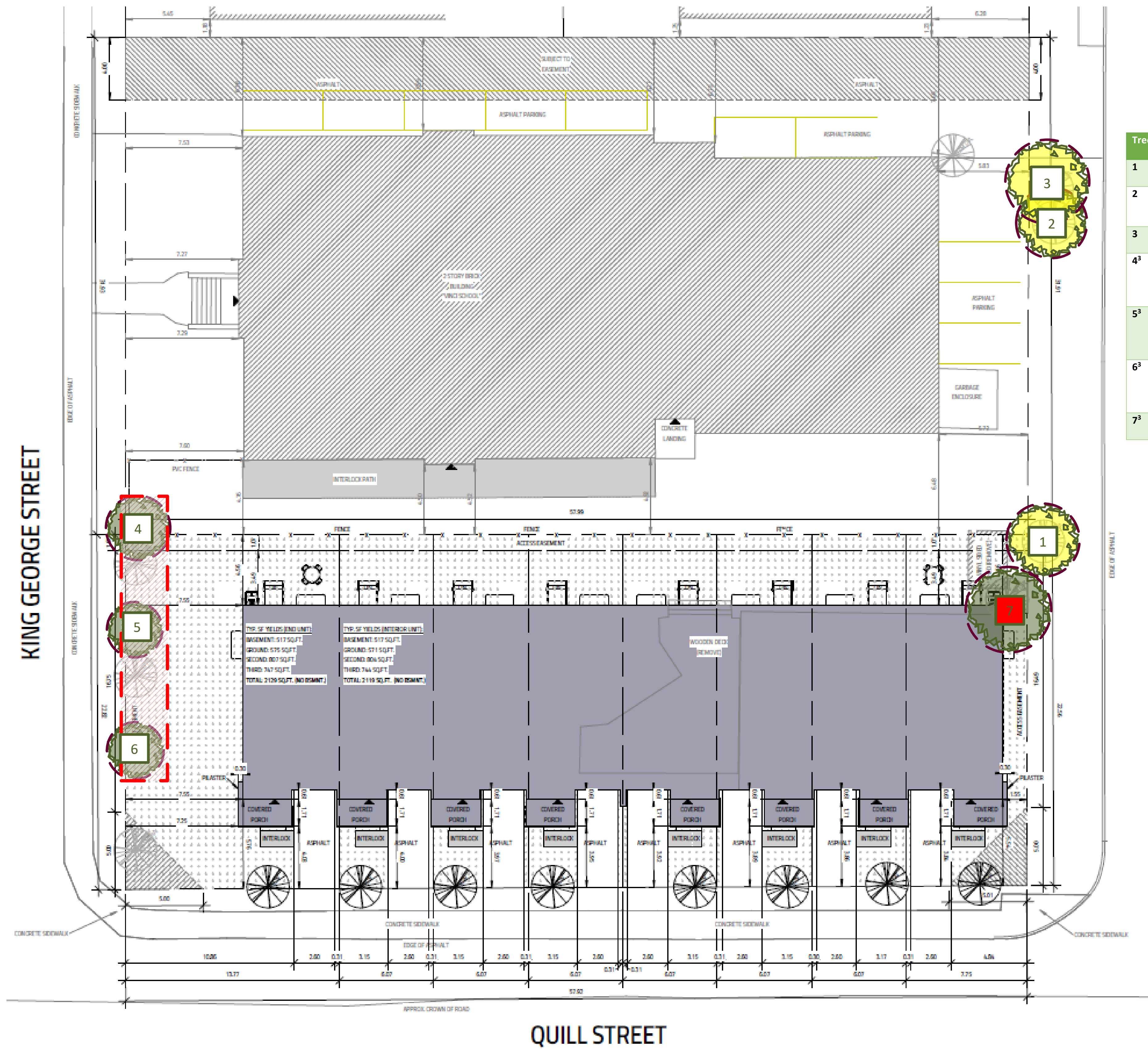
No Third Party Liability

This Report was prepared by Dendron exclusively for the Client for the purpose set out in the Report. Any use which a third party makes of this Report, or any reliance on or decisions a third party may make based upon this Report, are made at the sole risk of any such third parties. Dendron Forestry accepts no responsibility for any damages or loss suffered by any third party or by the Client as a result of decisions made or actions based upon the unauthorized use or reliance of this Report by any such party.

General

Any plans and/or illustrations in this Report are included only to help the Client visualize the issues in this Report and shall not be relied upon for any other purpose. This report is best viewed in colour. Any copies printed in black and white may make some details difficult to properly understand. Dendron accepts no liability for misunderstandings due to a black and white copy of the report.

Notwithstanding any of the above, nothing in this Report is taken to absolve the Client of the responsibility of obtaining a new Report in the event that the circumstances of the tree change.



Tree ¹	Species	DBH (cm)	Condition	Recommendations
1	Red Oak (<i>Quercus rubra</i>)	22	Fair/Good: snow piled approx. 1.3m high against trunk; crown looked healthy	No action required: far enough from construction that CRZ will not be impacted
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4 ³	Red maple (<i>Acer rubrum</i>)	19	Good/Fair	Not protected under by-law 2020-340. Suggest retention and protection as per City of Ottawa Tree Protection Specifications (March 2021) to provide canopy post-construction
5 ³	Red maple (<i>Acer rubrum</i>)	17	Good/Fair	Not protected under by-law 2020-340. Suggest retention and protection as per City of Ottawa Tree Protection Specifications (March 2021) to provide canopy post-construction
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7 ³	Crabapple (<i>Malus spp.</i>)	26	Good/Fair	Not protected under by-law 2020-340. Remove: within building footprint. No permit required.

Tree Protection Area (TPA)

Note: Trees 4-6 are not protected under By-law 2020-340. If they are retained, these measures should be put in place

Prior to any site works, protective fencing should be installed around the TPA as indicated in Map and maintained until all construction on site has been completed as per the **City of Ottawa Tree Protection Specifications (March 2021)**. Within the fenced area, the following tree protection guidelines should be applied:

- Do not change the grade
- Do not store construction material
- Do not operate machinery
- Do not convert to hard surface or change the landscaping
- Do not excavate unless it is a method that has been pre-approved by the City
- Do not place signs, notices or posters to any tree
- Do not damage the root system, trunk, or branches of any tree
- Direct the exhaust away from the tree

The tree protection fencing must be 1.2 m in height and constructed of a rigid or framed material (e.g. modulus – steel, plywood hoarding, or snow fence on a 2”X4” wood frame) with posts 2.4 m apart such that the fence location cannot be altered. All supports must be placed outside of the CRZ and installation must minimize damage to existing roots.

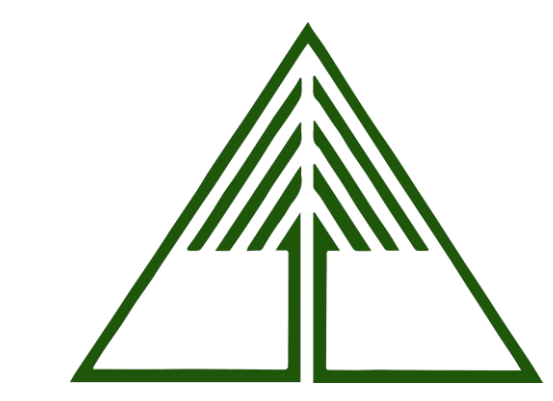
If the fenced tree protection area must be reduced to facilitate construction, *one* of the following mitigation measures should be applied:

- Place a layer of 6-12 inches (15 to 30 cm) of woodchip mulch to the area
- Apply ¾ (2 cm) inch plywood, or road mats over a 4+ inch (10 cm) thick layer of the wood chip mulch
- Apply 4-6 inches (10 to 15 cm) of gravel over a taut, staked, geotextile fabric

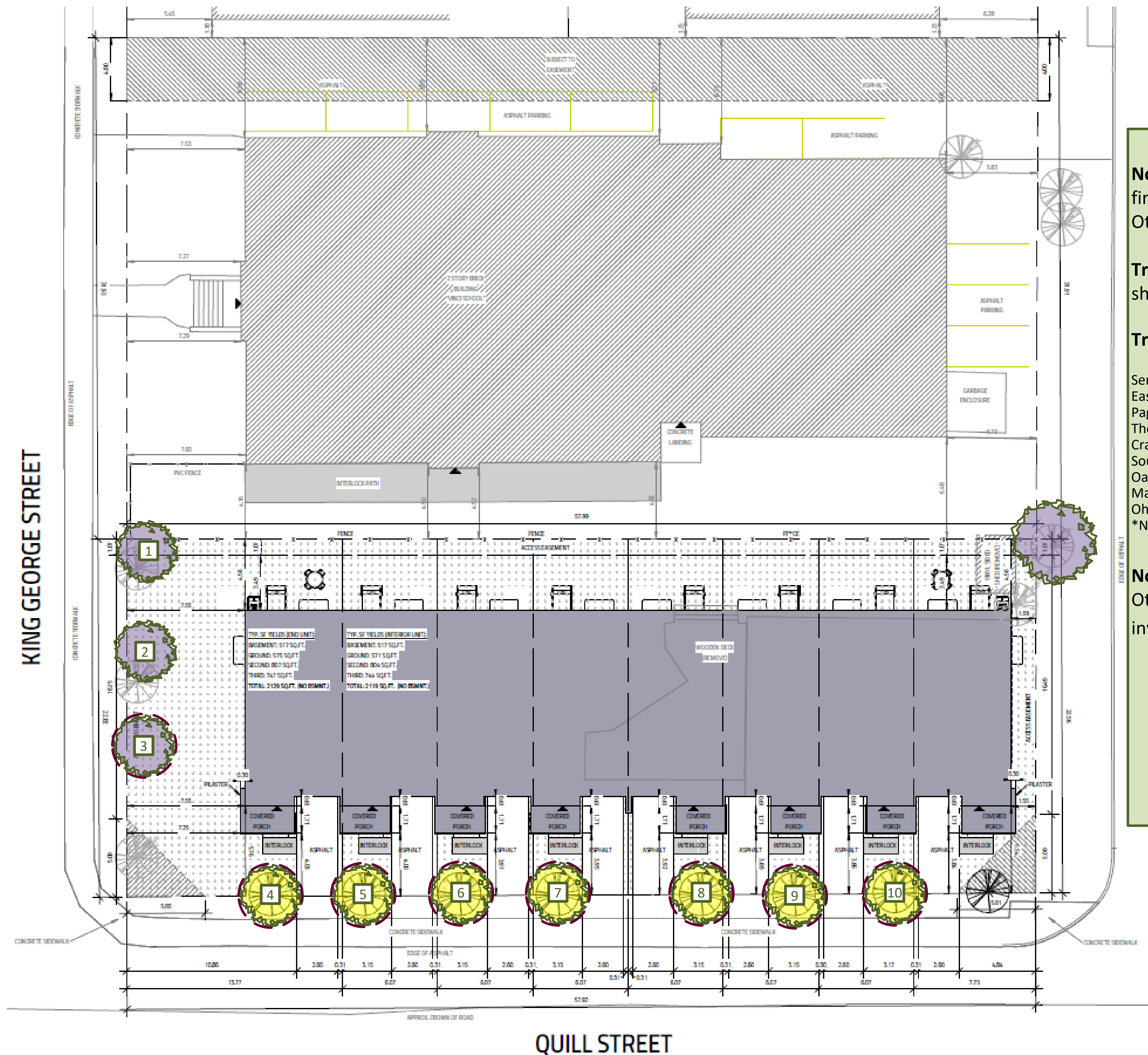
Legend

- Critical Root Zone
- Tree Protection Area
- Private Tree
- Tree either fully or partly on city property

Note: this tree layer has been added to the original site plan supplied by the client in pdf format. This layer refers to the trees only, and the original site plan has not been altered in the process. Refer to the original plan for details as quality is lost when importing the plan into the mapping software used to create the tree layer.
Note: The location of Trees 4-7 were not provided and have been estimated



Tree Information Report – 149 King George Street
 Tree layer prepared by Dendron Forestry Services
 Version 2.0, February 26, 2024
 For more information, please contact info@dendronforestry.ca



Replacement Tree Specifications

Note: Proposed tree locations are suggestions only and should be finalized only once construction is complete and should adhere to City of Ottawa Tree Planting Guidelines

Trees 1-3 are existing trees to be retained. If protected properly, these should be considered as valid replacement trees on site.

Trees 4-10 are to be small trees at maturity. Species suggestions include:

- Serviceberry (*Amelanchier spp*)*
- Eastern redbud (*Cercis canadensis*)
- Pagoda dogwood (*Cornus alternifolia*)
- Thornless Hawthorn (*Crataegus crus-galli*)*
- Crabapple (*Malus spp*)
- Sour cherry (*Prunus cerasus*)
- Oakleaf mountain ash (*Sorbus thuringiaca*)
- Magnolia (*Magnolia spp*)
- Ohio buckeye (*Aesculus glabra*)
- *Native to Ottawa region

Note: Norway maple (*Acer platanoides*), a commonly planted species in Ottawa and sold at nurseries, is *not* recommended as it is highly invasive.

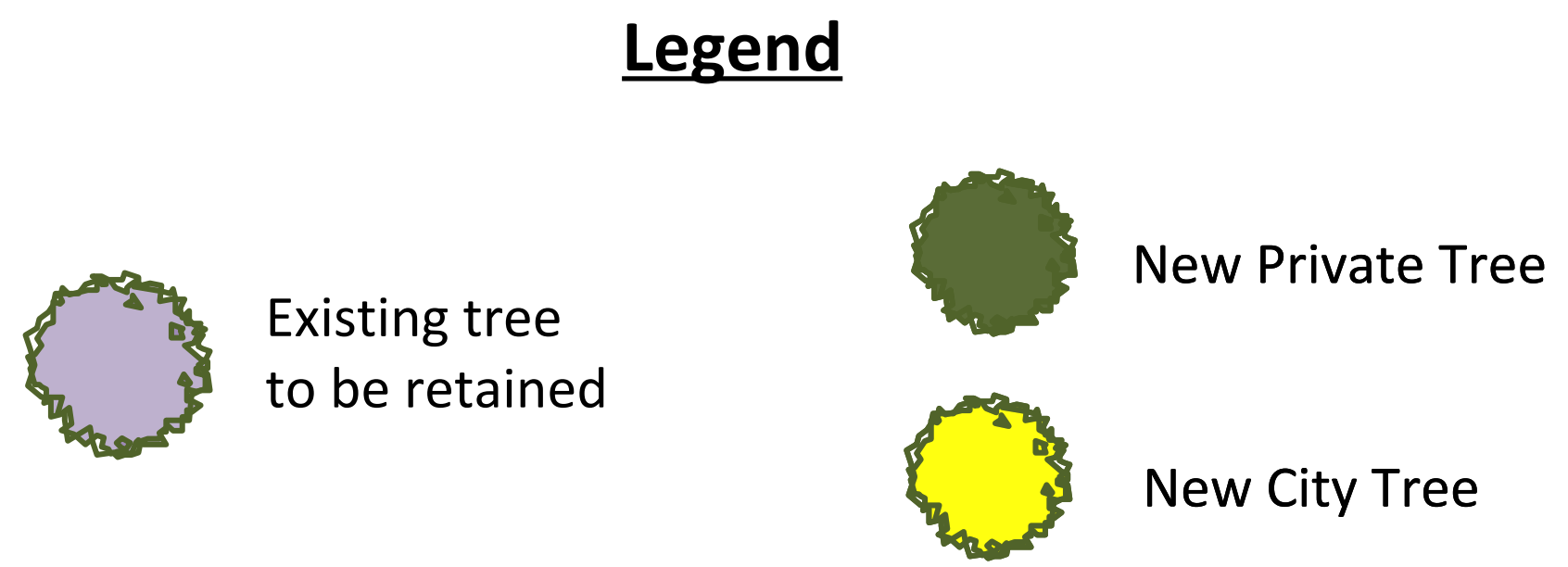
All deciduous trees must be a minimum of 50 mm in diameter measured no less than 15 cm above ground level. Coniferous trees must be no less than 200 cm in height.

See attached City of Ottawa Tree Planting Specifications for Infill Properties for more details on planting requirements.

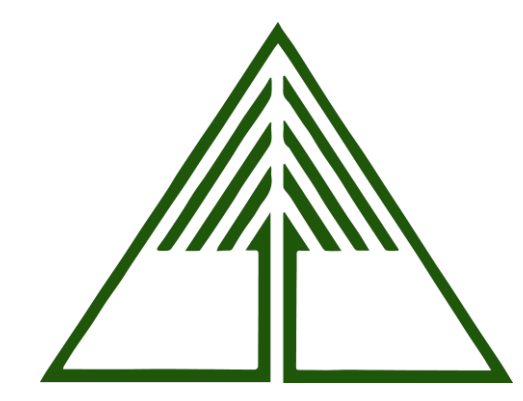
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Note that the tree layer has been added to the original site plan supplied by the client in pdf format. This layer refers to the trees only, and the original site plan has not been altered in the process. Refer to the original plan for details as quality is lost when importing the plan into the mapping software used to create the tree layer.



Tree Planting Plan – 149 King George Street
Tree layer prepared by Dendron Forestry Services
Version 2.0, February 26, 2024
For more information, please contact info@dendronforestry.ca



City of Ottawa Tree Planting Specifications for Infill Properties

Compensation planting locations and species must be approved by Forestry Services prior to planting, usually through submission of a Landscape Plan or showing new tree locations on the Tree Information Report. Large-growing, native species are preferred where space and conditions allow.

Any trees planted within the ROW are immediately protected under the Tree Protection by-law () and cannot be moved after planting.

Planning for planting in the ROW:

- o Determine how much open (soft) space is available in the planting location. A minimum of 9m² (1m depth) of good soil is recommended to support one tree. If there is insufficient space to plant in the ROW, planting on private property will be considered.
- o Note the locations and types of existing obstacles, above and below ground, using existing surveys plans, observations, and have utility locations marked by contacting www.on1call.com or 1.800.400.2255 (call before you dig). Use this information along with the setbacks listed below to determine a suitable planting location on the site, and the appropriate size of tree to plant.
- o If there are Hydro wires present over the property, consult Hydro Ottawa's tree planting guidelines: https://static.hydroottawa.com/documents/publications/safety/tree_planting_advice-EN.pdf.
- o If sensitive marine clay exists on the site, only small-growing, low-water demand species may be planted a minimum of 7.5m from the house.
- o Ensure no future conflicts with building projections, overhead or underground utilities that would pose future maintenance problems or impede full development of the canopy.
- o Tree species must be appropriate for the site (size, salt tolerance, etc). There are many resources available online to help select the right tree for your lot. Keep in mind that often native trees are best adapted to the local climate but less so for high salt conditions.
- o Planting must be done according to the specifications in Forestry Services' tree planting detail.
- o Trees must be watered regularly following planting to ensure proper establishment.
- o The City will assume maintenance responsibilities for trees planted in the ROW.

Key spacing (minimum distance) guidelines:

- 1m from utility boxes

For deciduous trees:

- Minimum 50mm caliper stock



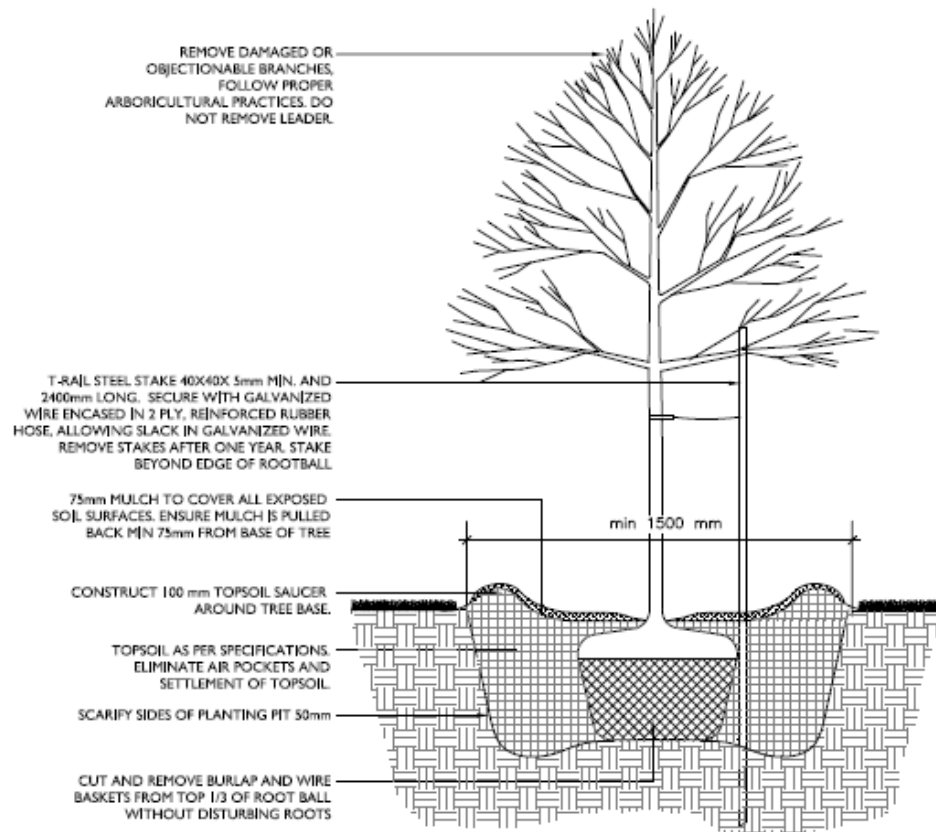
City of Ottawa Tree Planting Specifications for Infill Properties

- 1.5m from sidewalks, driveways, walkways, fences, sound walls, and old stumps.
- 2.5m from curbs, hydro transformers, or behind fire hydrants
- 4-7m from any part of an existing tree, depending on canopy width
- 10m from bus shelters and community mailboxes

For conifer (evergreen) trees:

Follow same setbacks as deciduous, but due to the widest branching being at the base of the tree, conifers need greater setbacks for ground-level obstacles.

- Minimum 200cm height stock
- 4.5m setbacks from sidewalks, walkways, driveways, and curbs.
- Do not plant on corners where sight lines will be compromised.



NOTES:

1. PROTECT TRUNK DURING TRANSPORT AND INSTALLATION. ALL WRAPPING TO BE REMOVED BEFORE FINAL INSPECTION;
2. ALL PROTECTIVE WRAPPING SHALL BE REMOVED AFTER INSTALLATION;
3. STAKING OF TREES SHALL BE PERFORMED ONLY IF DEEMED NECESSARY;
4. ALL DIMENSION IN MILLIMETERS UNLESS OTHERWISE NOTED.