

## **CITY OF VAUGHAN**

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

Item 2, Report No. 10, of the Committee of the Whole, which was adopted, as amended, by the Council of the City of Vaughan on March 20, 2018, as follows:

***By approving the following in accordance with Communication C2, from the Deputy City Manager, Community Services and the Director & Chief Licensing Officer, By-Law and Compliance, Licensing and Permit Services, dated March 16, 2018:***

- 1) That Council adopt the six [6] recommendations as outlined within Item 2, Report No. 10, Committee of the Whole, March 6, 2018, Review of the City Processes for Protection of Trees; and***
- 2) That recommendation 2) of the Committee of the Whole be deleted and replaced with the following:***
  - 2) That Council direct staff to undertake the necessary consultations with golf course and nursery owners and provide a report back to a future Committee of the Whole on findings and recommendations with respect to amendment of Tree Protection By-law to remove the exemption for golf courses and nurseries from having to obtain a Tree Removal Permit; and***

***By receiving the following Communications:***

- C1. Mr. Aaron Hershoff, Development Manager, TACC Developments, Applewood Crescent, Vaughan, dated March 14, 2018; and***
- C6. Mr. Duane E. Aubie, Eagles Nest Golf Club Inc., Dufferin Street, Maple, dated March 19, 2018.***

---

## **2 REVIEW OF CITY PROCESSES FOR PROTECTION OF TREES**

The Committee of the Whole recommends:

- 1) That the recommendation contained in the following report of the Deputy City Manager, Planning and Growth Management, dated March 6, 2018, be approved; and**
- 2) That the proposed Tree Protection By-law be amended to remove the exemption for golf courses and nurseries from the requirement to obtain a Tree Removal Permit.**

## **CITY OF VAUGHAN**

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

Item 2, CW Report No. 10 – Page 2

#### **Purpose**

The purpose of this report is to seek Council endorsement of the proposed Tree Protection Protocol (Attachment #1) and to authorize staff to make the necessary updates and/or amendments, as required to the Private Property Tree Protection By-law No. 185-2007 and User Fees & Charges By-law No. 022-2018.

#### **Recommendations**

1. THAT the Tree Protection Protocol (Attachment#1), BE ENDORSED;
2. THAT Council AUTHORIZE Staff to bring forward a new Tree Protection By-law that repeals and replaces the City's current Private Property Tree Protection By-law No. 185-2007, as amended, and Tree Planting, Trimming or Renewal By-law No. 258-83;
3. THAT Council AUTHORIZE Staff to amend the City's Fees and Charges By-law No. 022-2018, as amended, to introduce new fees relating to Tree Protection Agreements;
4. THAT the Tree Protection Protocol shall not come into effect until the new by-laws, in recommendations 2 and 3, are approved by Council and are in full force and effect;
5. THAT once the Tree Protection Protocol comes into effect, one additional full-time complement be added to the Transportation Services, Parks and Forestry Operations Department to execute the Tree Protection protocols; and
6. THAT the additional complement in recommendation 5 be fully funded from user fees imposed for the administration of Tree Protection Agreements.

## CITY OF VAUGHAN

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

Item 2, CW Report No. 10 – Page 3

#### **Report Highlights**

- The Tree Protection Protocol articulates objectives that are set out on the Term of Council Service Excellence Strategy Map, specifically to “Re-establish the urban tree canopy”.
- The Tree Protection Protocol will be a resource for both City staff and external stakeholders on how to manage the preservation and protection of private and public trees during construction throughout the City.
- The implementation of the Tree Protection Agreement will allow for greater standardization of tree preservation, tree removal, and proposing new landscapes.
- The amendment to the existing Private Property Tree Protection By-law No. 185-2007 and User Fees & Charges By-law No. 022-2018 will be in alignment with the Tree Protection Protocol.

#### **Background**

***The Protocol addresses the following Council direction:***

***“... staff review and report on opportunities to identify or improve protocols relating to the requirements for tree inventories, arborist reports and/or on-site inspections to better ensure future protection of large trees, particularly as they are more common in the historic districts ...”.***

The Tree Protection Protocol (hereinafter referred to as the “Protocol”) addresses Council’s direction to improve and standardize tree protection processes throughout the City of Vaughan and to respond to a Term of Council Service Excellence Strategy Map priority, specifically to “Re-establish the urban tree canopy”.

***The City regulates trees on private property through the City’s Private Property Tree Protection (PPTP) By-law #185-2007 and the Property Standards (PS) By-law #231-2011.***

The intent of the PPTP By-law is to provide specific rules that protect trees over a certain caliper size (20 cm), while identifying a permitting process to obtain authorization for their removal. This permitting tree removal process is administrated by the Transportation Services, Parks and Forestry Operations Department. In addition, the Property Standards (PS) By-law includes language that permits the issuance of an Order to Comply for a tree determined to be “unsafe” and/or where conditions “obstruct the safety of the public”. Enforcement of both By-laws is carried out by the By-law and Compliance, Licensing & Permit Services (BLCLPS) Department.

## CITY OF VAUGHAN

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

#### **Item 2, CW Report No. 10 – Page 4**

The City's PPTP By-law sets out penalties for anyone who damages a protected tree and is currently enforced through the issuance of an Order to cease the injury or destruction of the tree or the laying of a charge where warranted. While the imposition of a penalty and the initiation of a prosecution are available options to the BLCLPS Department enforcement staff, the recovery of damages by a property owner (owner of the tree) remains a civil matter that requires the property owner to seek independent legal advice and initiate a civil proceeding against the party that may have been the cause or origin of the damage. This includes the recovery of any related costs (e.g. tree removal expenses). Where disputes arise over a tree having shared ownership, civil proceedings may also include seeking a court order to protect or prevent the removal of a tree located between two neighboring properties/lands.

Pursuant to Property Standards Sections of the *Ontario Building Code Act*, S.O. 1992, C.23, the City of Vaughan PS By-law, Sections 5.1 Maintenance of Yards and 5.3 Planting also provide the ability for an Order to Comply to be issued to address any identified unsafe conditions or where trees obstruct the safety of the public. This includes the ability to prosecute for Failing to Comply with an Order, and remedy the contravention and recover the costs associated with the work through property tax. This authority can be applied to all owners of a tree in cases where shared ownership has been determined.

Bill 68, Modernizing Ontario's Municipal Legislation, introduced new tree protection requirements under the *Municipal Act*, 2001. A municipality is required to amend subsection 270 (1) as follows "the manner in which the municipality will protect and enhance the tree canopy and natural vegetation in the municipality". The City is moving forward to identify standards through the Protocol and By-law updates in order to satisfy these requirements.

#### ***Requirement for public notice***

Public notice for the fee proposals in this report was given in accordance with section 4(4) of the City's Notice By-law No. 392-2002.

#### **Previous Reports/Authority**

[https://www.vaughan.ca/council/minutes\\_agendas/Extracts/26cw0620\\_17ex\\_10.pdf](https://www.vaughan.ca/council/minutes_agendas/Extracts/26cw0620_17ex_10.pdf)

#### **Analysis and Options**

***Amendments to the existing Planting, Trimming or Removal of Trees By-law No. 258-83, Public Property Tree Protection By-law No. 95-2005, Private Property Tree Protection By-law No. 185-2007, and Private Property Tree Protection By-law No. 205-2007, will help to better regulate and enforce the planting, maintenance and removal of trees on public and private property.***

## CITY OF VAUGHAN

### EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018

#### Item 2, CW Report No. 10 – Page 5

The Protocol is divided into two sections. The first section delineates the City process for reviewing development applications with the potential to impact existing trees. It also introduces a Tree Protection Agreement, which would allow for greater standardization of the technical requirements as they relate to tree preservation, removal, and replacement. The second section of the Protocol provides a technical guide to assist City staff and developers/landowners to assess how proposed development may impact the viability of existing trees, and how tree protection will influence the design of proposed new development. The Protocol will be a resource for City staff and external stakeholders to manage the protection of private and public trees within the City.

To develop the Tree Protection Protocol, Staff followed a comprehensive communication and engagement plan, and established an internal Technical Advisory Committee (TAC), including representatives from the Development Planning, Urban Design and Cultural Heritage, Policy Planning and Environmental Sustainability, Legal Services, Building Standards, By-law and Enforcement, Development Engineering and Engineering and Transportation Services, Parks and Forestry Operations Departments. The TAC outlined the roles and responsibilities of each City department as they relate to tree protection, and identified how to improve current standards and practices related to tree protection by establishing a City-wide Protocol, to inform the development review and tree permitting process.

Staff presented the Protocol to the York Chapter of the Building Industry and Land Development Association (BILD) in September 2017.

The following is a summary of the highlights of the proposed Tree Protection By-law:

	<b>Summary of proposed Tree Protection By-law</b>
Key Definitions	<p>“Applicant” means a Person (either a natural person or a corporation) seeking to obtain a Tree Removal Permit and shall always include the Owner of the property to which the application pertains.</p> <p>“Tree Protection Agreement” means an agreement made pursuant to:</p> <ul style="list-style-type: none"><li>(i) a development Agreement, Site Plan Agreement or Subdivision Agreement between the City and a Person; or</li><li>(ii) a permission by the City, including but not limited to a Building Permit or a Cultural Heritage Permit, that identifies all trees on a lot that are to be preserved and sets out any other measures that the City deems appropriate.</li></ul> <p>“Tree Protection Zone” means the minimum setback required, as determined by the Director of Forestry, to maintain the structural integrity of the tree’s anchor roots, based on generally accepted arboricultural principles.</p>

## CITY OF VAUGHAN

### EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018

Item 2, CW Report No. 10 – Page 6

	<b>Summary of proposed Tree Protection By-law</b>
Applicability	The By-law does not apply to woodlands covered under a York Region By-law, activities undertaken by the City, York Region, School Board or other public authorities, and lawful Activities undertaken under several Ontario Acts.
Prohibitions	<p>No person may, on public property, damage any trees.</p> <p>No person may, on private property, damage any trees with a diameter of more than 20 centimeters without a Tree Removal Permit.</p> <p>A permit is not required for emergency work, pruning, removal of dead branches, damaging or removing trees on rooftop gardens, interior courtyards, solariums, nurseries or golf courses.</p> <p>No person shall undertake any unauthorized activities within a Tree Protection Zone.</p>
Encroachment onto Public Property	The City may prune any tree(s) on private property that encroach onto public property and may also remove any tree(s) deemed decayed or dangerous.
Tree Removal Permit Application (not associated with a development application)	<p>Every Applicant must submit a completed application, pay the prescribed fee, provide a plan showing the tree(s) to be damaged or removed and provide any other information deemed appropriate by the Director of Transportation Services Parks and Forestry Operations.</p> <p>Where a tree straddles a property line between two private lots, the Applicant must provide written consent to the application from the adjoining Owner.</p> <p>A Permit shall be valid for six months, but may be extended in extenuating circumstances.</p> <p>A Permit shall not be granted if the tree(s) is healthy and no alternative planting plan has been provided, the tree(s) is located in an environmentally sensitive area, removal will have a negative impact on erosion or flood control, or if significant vistas will not be adequately preserved.</p>
Duties of Permit Holders	Permit Holders must post their permit on the property, comply with all conditions of said permit (with such requirement extending to the Permit Holder's employees and agents), and comply with all Orders and lawful direction from the City.

## CITY OF VAUGHAN

### EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018

Item 2, CW Report No. 10 – Page 7

	<b>Summary of proposed Tree Protection By-law</b>
Authority of the Director of Transportation Services Parks and Forestry Operations	The Director of Transportation Services, Parks and Forestry Operations, acting reasonably, may issue, place conditions on, suspend or revoke a Tree Removal Permit(s) and/or provide relief from requirements or require additional measures beyond those of the By-law.
Enforcement Powers	<p>Municipal Law Enforcement Officers may enter on any Lands to ensure compliance with the By-law, a Tree Protection Permit, or an Order or direction.</p> <p>Municipal Law Enforcement Officers may require the production of documents, the provision of information, or access to examine, make tests, and take samples and photographs for the purpose of an inspection.</p> <p>Municipal Law Enforcement Officers may issue an Order requiring a specific remedy and may, pursuant to authorization from the Director of Enforcement, suspend or revoke a Permit.</p>
Offences and Penalties	<p>Every person that contravenes a provision of the By-law is subject to fines as follows:</p> <p>(i) Minimum of \$500 and maximum of \$10,000 for every offence; and</p> <p>(ii) Minimum of \$500 and maximum of \$10,000 for every day the offence continues.</p> <p>Where trees are damaged or removed in contravention of the By-law, fines shall apply as follows:</p> <p>(i) On a first conviction, a minimum of \$250 per tree and a maximum of \$2,500 per tree; and</p> <p>(ii) On any subsequent conviction, a minimum of \$500 per tree and a maximum of \$5,000 per tree.</p> <p>If the person convicted is a corporation, the maximum fines shall be \$10,000 and \$25,000 respectively.</p> <p>In addition to the above fines, if the convictions above relate to a development, a special fine of \$25,000 per tree damaged or removed shall apply.</p>

## CITY OF VAUGHAN

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

Item 2, CW Report No. 10 – Page 8

#### ***The Tree Protection Protocol is to better protect City and privately-owned trees***

The Protocol outlines the processes to protect City-owned and private trees. The Protocol represents the City's standard specifications for tree protection during the land development approval process. The standards also apply to private and City-owned tree removal applications/permits administered by Transportation Services, Parks and Forestry Operations. Higher standards of tree protection may be imposed where warranted in the opinion of the City's Forestry staff having regard to the size, species, location and health of a tree, and any circumstances surrounding the ensuing construction which may require additional tree protection measures. Also, the Protocol provides an appropriate framework to address requirements of new legislation (Bill 68), which implements amendments to the *Municipal Act*. This Protocol can also be used to guide and inform projects led by other levels of government including York Region, Metrolinx, etc.; however, the City is unable to regulate their activities affecting trees on their property.

The Protocol responds to increasing community interest related to the protection and preservation of trees and minimizing loss during land development activities.

The proposed Protocol provides the following:

- a response to new amendments to the *Municipal Act* that require municipalities to adopt and maintain policies regarding the manner in which the municipality will protect and enhance the tree canopy and natural vegetation in the municipality;
- informs projects led or regulated by other levels of government;
- identifies the roles and responsibilities of City departments regarding tree protection, specifically identifying department protocols for tree protection and removal permitting;
- provides direction on the technical report content required for staff to assess how proposed development will impact the viability of existing trees in the landscape, and preservation methods;
- establishes a "Tree Protection Agreement" that will allow for greater standardization of tree preservation, tree removal, and proposing new landscape;
- excludes natural heritage features such as woodlands and Toronto and Region Conservation Authority regulated or owned lands; and
- creates a resource for both City staff and external stakeholders on how to manage the preservation, removal and replanting of trees City-wide.



## **CITY OF VAUGHAN**

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

#### **Item 2, CW Report No. 10 – Page 9**

The proposed Protocol is intended to achieve the following:

- maintain and re-establish the City's tree canopy;
- align City business processes to ensure consistency in the application of Tree Protection Zones (TPZ);
- increase public awareness about the benefits of the preservation of trees; and
- promote public education and investment in the protection of the City's urban tree canopy.

The Transportation Services, Parks, Forestry Operations Department, in particular the Forestry and Horticulture Division (Forestry) issues private tree removal permits for the infill development application process. Forestry also issues permits for City-owned tree removals for private projects (not subject to a development application), in addition Forestry reviews and provides comments on some Committee of Adjustment, Cultural Heritage, Fill Permit and Draft Plan of Subdivision applications.

Once this Protocol is implemented, Forestry will be reviewing all Arborist Reports submitted as part of the development review processes. Forestry is a technical resource for the City and will be used to protect the City's interest as they apply to trees.

The Development Planning Department, in particular the Urban Design and Cultural Heritage Division, provides approvals under the development application review, Committee of Adjustment, Cultural Heritage and Fill Permit processes. The Parks Development Department have an interest in applications where City-owned trees within public open spaces or parks may be impacted.

The Policy Planning and Environmental Sustainability Department review and provide input on applications that contain natural heritage features such as woodlands. Where applicable, this is undertaken in consultation with the Toronto and Region Conservation Authority. Policy Planning and Environmental Sustainability Staff also review and provide comments on applications that have potential impacts on Species at Risk (as defined by the Endangered Species Act, 2007). The following table identifies tree permitting categories and City department review/approval responsibilities under the new protocol:

# CITY OF VAUGHAN

## EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018

### Item 2, CW Report No. 10 – Page 10

Table 1: Tree Permitting Categories and Responsible Approval Departments

Category		Application Type	Managing Department	Technical Approval Department
Non-Development Application	A	Private Tree Removal Permit	Forestry and Horticulture Division	Forestry and Horticulture Division
Development Application	B	- Draft Plan of Subdivision	Development Planning Department,	Urban Design & Cultural Heritage Division +
		- Site Development	Urban Design & Cultural Heritage Division	Forestry and Horticulture Division
	C	- Zoning By-law Amendment		
		- Official Plan Amendment		
		Cultural Heritage Permit	Urban Design & Cultural Heritage Division	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
	C	Building Permit	Building Standards Department	Forestry and Horticulture Division
		Committee of Adjustment	Office of the City Clerk	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
		Fill Permit	Development Engineering and Infrastructure Planning Department	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division

Category A (Non-planning application): Forestry receives an application directly from managing department or applicant.

Category B (Planning application): Tree Protection Agreement is required.

Category C (Planning application): Tree Protection Agreement is not required.

### ***The Tree Protection Protocol introduces the requirement for a Tree Protection Agreement to protect City and privately-owned trees.***

A Tree Protection Agreement (Agreement) will be required by the City for developments included in Categories B identified in Table 1 above, (i.e. Draft Plan of Subdivision, Site Development and Cultural Heritage Permit applications). The Agreement will secure the protection of City and privately-owned trees that may be impacted by proposed development.

## CITY OF VAUGHAN

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

#### **Item 2, CW Report No. 10 – Page 11**

The Agreement is intended to secure that the Owner satisfy all conditions of approval of an application including, but not limited to, cash-in-lieu in an amount equal to the cost of planting and TPZ installation and maintenance for two (2) years in order to ensure compliance with approved landscape or replanting plans. Tree protection guarantees (in the form of a Letter of Credit) held by the City shall only be released by the City when all construction activities are complete, compliance with all approval terms and conditions has been verified, there has been no encroachment into the minimum TPZ and the trees are healthy and in a state of vigorous growth. An Agreement fee will be charged to the applicant in accordance with the established City User Fees & Charges By-law.

#### **Financial Impact**

***The Tree Protection Protocol introduces the requirement of a Tree Protection Agreement for certain Planning applications that will result in increased review and inspection activities.***

Staff conducted a resource assessment analysis to validate the need for additional resources to support the successful implementation of the Tree Protection Protocol and administer the Tree Protection Agreements.

Based on the anticipated volume of development applications that would require some form of tree protection, it was determined that one additional full time complement within Forestry would be required upon implementation of the protocols in order to effectively carry out inspection and review requirements. The estimated annual cost of the additional resource and related operational costs would be approximately \$110,000, with one-time set-up costs of approximately \$5,000. A new user fee is recommended to be charged for each Tree Protection Agreement in order to recover the incremental costs associated with the implementation of the tree protection protocol. Based on the estimated number of development applications that would require some form of tree protection, a fee of \$1,600 plus applicable taxes per agreement would appropriately generate sufficient average annual revenues to offset these incremental costs.

Resourcing requirements will continue to be assessed for the affected departments after the protocol comes into effect, including Financial Planning and Development Finance, Development Planning, By-Law and Compliance, Licensing and Permit Services and Transportation Services, Parks and Forestry Operations. Any additional resourcing requirements will be brought forward through future annual budget processes along with any recommended adjustment to the tree protection agreement fee in order to ensure fees are continuing to appropriately recover the costs of administering the protocol.

#### **Broader Regional Impacts/Considerations**

Copies of this report and the Protocol will be provided to York Region, York Region Transit and other agencies to inform their related Tree Protection policies and future investments in Tree Protection.

## **CITY OF VAUGHAN**

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 20, 2018**

Item 2, CW Report No. 10 – Page 12

#### **Conclusion**

The Tree Protection Protocol will provide City staff and the development community with the necessary guidance, procedures and standards to protect both City-owned and privately-owned trees during development. Upon approval by Council, the Tree Protection Protocol will be placed on the City's website and cited as a resource at Pre-Application Consultation (PAC) meetings, which will allow future development proponents to reference this document prior to the submission of a development application (s).

The necessary amendments to the Private Property Tree Protection By-law No. 185-2007, Public Tree Protection By-law No. 185-2007 and User Fees & Charges By-law No. 022-2018 will reinforce the Protocol, providing directions for preserving and expanding the existing green canopy as well as standardizing the tree removal and replacement within the City. Therefore, Staff has recommended that the Protocol not be implemented until the proposed amendments to the mentioned By-laws are in full force and effect.

**For more information**, please contact: Rob Bayley, Manager of Urban Design and Cultural Heritage, ext. 8254.

#### **Attachments**

1. Tree Protection Protocol, Urban Design Section, Development Planning Department, 2017.

#### **Prepared by**

Rob Bayley, Manager of Urban Design, ext. 8254

Mauro Peverini, Director of Development Planning, ext.8407

Behnaz Djabarouti, Urban Designer, ext. 8017

Gus Michael, Director of By-Law and Compliance Licensing and Permit Services, ext. 8735

Rita Selvaggi, Interim Director of Financial Planning & Development Finance, ext. 8438

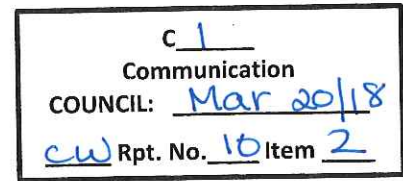
Zoran Postic, Director of Transportation Services Parks and Forestry Operations, ext.6137

Jay Todd, Manager of Forestry & Horticulture, ext. 6158

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)

**Subject:** March 20, 2018 Council Meeting - Consideration of Committee of the Whole, Report No. 10 - Item 2 - Review of City Processes for Protection of Trees

**Attachments:** 20180313151239.pdf



**From:** Aaron Hershoff [mailto:ahershoff@tacc.com]

**Sent:** Wednesday, March 14, 2018 9:28 AM

**To:** Clerks@vaughan.ca; 'Daniel Kostopoulos' <daniel.kostopoulos@york.ca>; Schmidt-Shoukri, Jason <Jason.Schmidt-Shoukri@vaughan.ca>; Collins, Stephen <Stephen.Collins@vaughan.ca>; Bayley, Rob <Rob.Bayley@vaughan.ca>; Peverini, Mauro <MAURO.PEVERINI@vaughan.ca>; Djabarouti, Behnaz <Behnaz.Djabarouti@vaughan.ca>; gus.Michael@vaughan.ca; Selvaggi, Rita <Rita.Selvaggi@vaughan.ca>; Postic, Zoran <Zoran.Postic@vaughan.ca>; Todd, Jay <Jay.Todd@vaughan.ca>

**Cc:** John Young <jyoung@coppercreek.ca>; Silvio De Gasperis <sde@tacc.com>; Jenny Commisso <jcommisso@tacc.com>

**Subject:** March 20, 2018 Council Meeting - Consideration of Committee of the Whole, Report No. 10 - Item 2 - Review of City Processes for Protection of Trees

Please circulate the attached letter to Mayor and Members of Council prior to next week's Council Meeting.

On behalf of Copper Creek Golf Group it is requested that the item be deferred until such time as Staff and members of Council have met with the various golf courses in Vaughan to discuss the motion to remove the current exemption that golf course have with respect to the removal of trees.

**Aaron Hershoff**  
MBA, M.C.I.P., R.P.P.  
Development Manager

**TACC**  
DEVELOPMENTS

600 Applewood Crescent  
Vaughan, ON L4K 4B4

t 905.760.7300  
f 905.669.9600  
e ahershoff@tacc.com

taccdevelopments.com



March 13, 2018

Mayor and Members of Council  
City of Vaughan  
2141 Major Mackenzie Drive  
Vaughan, Ontario  
L6A 1T1

Dear Mayor and Members of Council:

**Re: City of Vaughan Tree Protection Protocol - Amendment**

I am composing this letter to bring to your attention the difficulties that will be faced by Golf Course Operators in Vaughan if the proposed amendment to remove the golf course exemption for tree cutting without permits is adopted by the Tree Protection Protocol.

The safety of the public that visit the golf course is a major priority in our industry. Unseasonal conditions, high winds, drought and other climate factors can have a dramatic effect on the trees causing potential safety hazards. If golf courses are no longer exempt from the permit process, the delay in the tree removal by now having to obtain a permit could cause undue harm to the public and disturb the operation of the business. Maintenance and upgrades are a daily operational occurrence on the golf course to ensure safety and quality conditions of the property - requiring a permit will put both of these factors at risk.

The majority of the trees on the property are not naturally occurring but were planted as per the design of the approved golf course plan. The golf course is a planned landscape and if a compensation requirement is enforced, the design of the course could be negatively altered affecting the business plan.

The current system for tree removal has worked well, and I am strongly requesting that it remains intact. *"A permit is not required for emergency work, pruning, and removal of dead branches, damaging or removing trees on rooftop gardens, interior courtyards, solariums, nurseries or golf courses."*

I am further requesting that any decision with respect to Golf Courses in Vaughan be deferred until such time as City Staff and Golf Course Operators have the opportunity to meet, discuss and determine if there are other options that can be mutually beneficial.

Yours truly,



**COPPER CREEK GOLF CLUB**

Per:

John Young, Chief Operating Officer

Copies to: Office of the City Clerk

*Daniel Kostopoulos, City Manager*

*Jason Schmidt-Shoukri, Deputy City Manager, Planning and Growth Management*

*Stephen Collins, Deputy City Manager, Public Works*

*Rob Bayley, Manager of Urban Design,*

*Mauro Peverini, Director of Development Planning,*

*Behnaz Djabarouti, Urban Designer*

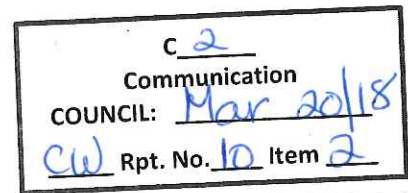
*Gus Michael, Director of By-Law and Compliance Licensing and Permit Services*

*Rita Selvaggi, Interim Director of Financial Planning & Development Finance*

*Zoran Postic, Director of Transportation Services Parks and Forestry Operations*

*Jay Todd, Manager of Forestry & Horticulture*





**DATE:** MARCH 16, 2018

**TO:** HONOURABLE MAYOR AND MEMBERS OF COUNCIL

**FROM:** MARY REALI, DEPUTY CITY MANAGER, COMMUNITY SERVICES  
GUS MICHAELS, DIRECTOR & CHIEF LICENSING OFFICER, BY-LAW AND COMPLIANCE, LICENSING AND PERMIT SERVICES

**RE:** ITEM 2, REPORT No. 10, COMMITTEE OF THE WHOLE, MARCH 06, 2018  
REVIEW OF CITY PROCESSES FOR PROTECTION OF TREES – MOTION TO AMEND  
– REMOVAL OF EXEMPTION TO OBTAIN A TREE REMOVAL PERMIT FOR GOLF COURSES AND NURSERIES

---

**Purpose**

At its meeting of March 06, 2018, Committee of the Whole recommended to Council:

1. THAT Council amend the proposed Tree Protection By-law to remove the exemption for golf courses and nurseries from having to obtain a Tree Removal Permit;

This communication is intended to provide City Council with additional information and seek Council's support to defer adoption of the above recommendation, allowing City staff to undertake consultations with golf course and nursery owners and upon conclusion provide a report to a future Committee of the Whole with staff's findings and recommendation.

**Recommendation**

- 1) THAT Council adopt the six [6] recommendations as outlined within Item 2, Report No. 10, Committee of the Whole, March 6, 2018, Review of the City Processes for Protection of Trees; and
- 2) That recommendation 2) of the Committee of the Whole be deleted and replaced with the following:
  - 2) THAT Council direct staff to undertake the necessary consultations with golf course and nursery owners and provide a report back to a future Committee of the Whole on findings and recommendations with respect to amendment of Tree Protection By-law to remove the exemption for golf courses and nurseries from having to obtain a Tree Removal Permit.



### **Background**

At its meeting of March 06, 2018, Committee of the Whole recommended that Council adopt recommendations as provided within Item 2, Report No. 10, Committee of the Whole, March 6, 2018 – Review of the City Processes for Protection of Trees with an additional amendment provided through a motion recommending an amendment to the City's Tree Protection By-law to remove the exemption for golf courses and nurseries from having to obtain a Tree Removal Permit.

### **Analysis and Options:**

To ensure that staff had opportunity to engage stakeholders, staff committed to consulting with golf course and nursery owners/operators, initially hoping that this consultation could take place prior to March 20, 2018 Council meeting.

In preparation for Council, staff undertook to and began identifying golf courses and nurseries within the City and discovered that in order to provide opportunity for the appropriate consultations and allow for staff to be in a better position to make a more informed recommendation to Council on whether the current exemption for golf courses and nurseries from obtaining a Tree Removal Permit should be maintained or amended, additional time would be required. Additionally, given the current time of year, staff recognize that golf courses and most likely nurseries are not in active operation. Seeking to communicate during a recognized holiday (e.g. March Break), would place operators at a disadvantage and staff at a disadvantage and not support the intended purpose of the consultation process. Staff wish to further explore whether any proposed amendments in this regard would have an adverse effect on the golf courses or nursery operators from carrying out their regular grounds maintenance, including the any annual maintenance of trees.

In this regard, staff have begun to make some preliminary contact with golf course and nursery operators and intend on scheduling additional time to meet with and consult with the operators.

Further, during staff's preliminary review of this matter, the issue of what constitutes a nursery has arisen. Common knowledge of nurseries are in fact garden centres that may not or would not be affected as all trees retailed are potted plants. Staff believe that gaining a better understanding of the intended purpose of the current exemption for nurseries is critical in understanding what if any unintended consequence may be realized.

Although little may be known regarding nurseries within the City at this time, it is reasonably known that golf courses are appropriately groomed, landscaped and all green spaces are maintained to a high standard. This includes providing regular maintenance to all landscaped areas, ground covers, trees and nature growth. It is reasonable to conclude that maintaining a healthy green space, tree canopy and having flexibility to alter landscaping where they deem necessary can be beneficial to their operation and aligned with what is in the golf course's best interests from a service perspective. It is also important to note that to date the current exemption has not given reason for concern.

Additionally, staff also recognize and support the value and importance that Council places on ensuring the appropriate level of over-sight and regulatory framework be in place with respect to protection of trees and supporting the Term of Council priorities of re-establishing the City's tree canopy.

In doing so, staff must balance the interest of all stakeholders and the greater public at large, while ensuring that Council is provided with a fulsome recommendation supported by sufficient and relevant information, including fulsome consultation with stakeholders, to facilitate Council in making an informed decision on the matter.

It is therefore staff's recommendation that Council direct staff to undertake and continue the necessary consultations with golf course and nursery owners, and provide a report back to a future Committee of the Whole on findings and any related recommendation(s) with respect to amendment of the Tree Protection By-law to remove the exemption for golf courses and nurseries from having to obtain a Tree Removal Permit.

#### **Conclusion**

Staff recommend that that Council adopt the six [6] recommendations as outlined within Item 2, Report No. 10, Committee of the Whole, March 6, 2018, Review of the City Processes for Protection of Trees; and direct staff to undertake the necessary consultations with golf course and nursery owners and provide a report back to a future Committee of the Whole on findings and recommendations.

Respectfully Submitted,



**Mary Reali**  
Deputy City Manager, Community Services



**Gus Michaels**  
Director & Chief Licensing Officer, By-law & Compliance, Licensing & Permit Services

**Subject:** Vaughan Tree Protection Protocol\_Motion to Remove Golf Course Exemption  
**Attachments:** 2018 03 19 ENGC\_Letter\_Review of City Processes for Protection of Trees.pdf

c <u>6</u>
Communication
COUNCIL: <u>Mar 20/18</u>
<u>CW</u> Rpt. No. <u>10</u> Item <u>2</u>

**From:** Laurel Floyd [mailto:lfloyd@yorkmajorholdings.com]

**Sent:** Monday, March 19, 2018 3:36 PM

**To:** Bevilacqua, Maurizio <Maurizio.Bevilacqua@vaughan.ca>

**Cc:** Kostopoulos, Daniel <Daniel.Kostopoulos@vaughan.ca>; Clerks@vaughan.ca; Collins, Stephen

<Stephen.Collins@vaughan.ca>; Bayley, Rob <Rob.Bayley@vaughan.ca>; Peverini, Mauro

<MAURO.PEVERINI@vaughan.ca>; Peverini, Mauro <MAURO.PEVERINI@vaughan.ca>; Djabarouti, Behnaz

<Behnaz.Djabarouti@vaughan.ca>; Michaels, Gus <Gus.Michaels@vaughan.ca>; Selvaggi, Rita

<Rita.Selvaggi@vaughan.ca>; Postic, Zoran <Zoran.Postic@vaughan.ca>; Todd, Jay <Jay.Todd@vaughan.ca>; Duane Aubie <daubie@yorkmajorholdings.com>; Jason Crawford <jcrawford@eaglesnestgolf.com>

**Subject:** Vaughan Tree Protection Protocol\_Motion to Remove Golf Course Exemption

Good afternoon Hon. Maurizio Bevilacqua and Members of Council,

Please find attached a letter respectfully requesting the City of Vaughan defer the proposed amendment to remove the golf course exemption for tree cutting without a permit in any new proposed Private Property Tree Protection Protocol by-law.

Kindly review attached prior to City of Vaughan Council scheduled for March 20, 2018.

Regards,

**Laurel Floyd**

Executive Assistant to Duane E. Aubie, P.Eng., Vice President & COO

**York Major Holdings Inc.**

Eagles Nest Golf Club Inc. | Turnberry Golf Club Inc.

10,000 Dufferin Street, PO Box 403, Maple, ON L6A 1S3

t 905.653.2001 f 905.417.0525 c 416.300.3965

lfloyd@yorkmajorholdings.com | Website



Confidentiality Note: This email and any attachments are confidential and may be protected by legal privilege. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of this email or any attachment is prohibited. If you have received this email in error, please notify us immediately by returning it to the sender and delete this copy from your system. *Please consider the environment before printing this email.*



**eagles nest**  
GOLF • CLUB

March 19, 2018  
File: ENGC/10

Mayor and Members of Council  
City of Vaughan  
2141 Major Mackenzie Drive  
Vaughan, ON  
L6A 1T1

**Attention: Hon. Maurizio Bevilacqua and Members of Council,**

Dear Mr. Mayor and Members of Council:

**Reference: City of Vaughan Tree Protection Protocol  
Proposed Amendment to By-law 185-2007**

We are writing to respectfully request that the City of Vaughan defer the proposed amendment to remove the golf course exemption for tree cutting without a permit in any new proposed Private Property Tree Protection Protocol by-law.

The current system for tree removal outlined in "*City of Vaughan By-law 185-2007, Permit Requirements and Exemptions, Section 3. (2) Despite subsection (1), a permit is not required (e) to injure or destroy trees on a nursery or golf course.*" has worked well, and we request that this exemption remain unchanged in the new by-law.

The safety of the golfing public is of utmost importance to Eagles Nest Golf Club. Unseasonal conditions, high winds, drought, and other climate factors can and do have some dramatic effects on the trees causing potential safety hazards. If golf courses are no longer exempt from the permit process, the delay in damaged tree removal, by now having to obtain a permit, could cause undue harm to the public and disrupt business operations. Daily maintenance and course upgrades/modifications are required on the golf course to ensure public safety and quality conditions of the property – requiring a tree removal permit will put both factors at risk.

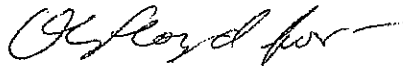
Again, we request that any decision with respect to permitting tree removal on golf courses in the City of Vaughan be deferred until city staff and golf course operations can meet, discuss, and determine if there are other options available that can be mutually beneficial.

**Reference: Review of City Processes for Protection of Trees**

---

Sincerely,

**EAGLES NEST GOLF CLUB INC.**



Duane E. Aubie, P.Eng.  
Vice President & COO

- c. Daniel Kostopoulos, Office of the City Clerk, City Manager  
Jason Schmidt-Shoukri, Deputy City Manager, Planning and Growth Management  
Stephen Collins, Deputy City Manager, Public Works  
Rob Bayley, Manager of Urban Design  
Mauro Peverini, Director of Development Planning  
Behnaz Djabarouti, Urban Designer  
Gus Michaels, Director of By-Law and Compliance Licensing and Permit Services  
Rita Selvaggi, Interim Director of Financial Planning & Development Finance  
Zoran Postic, Director of Transportation Services Parks and Forestry Operations  
Jay Todd, Manager of Forestry and Horticulture  
Jason Crawford, Eagles Nest Golf Club, Director, Golf

Attachment

If y:\eagles nest golf club inc\clerical\letter\2018\2018 03 19 engc\_letter\_review of city processes for protection of trees.docx

Item:



## Committee of the Whole Report

---

**DATE:** Tuesday, March 06, 2018

**WARD(S):** ALL

**TITLE: REVIEW OF CITY PROCESSES FOR PROTECTION OF TREES**

**FROM:**

Jason Schmidt-Shoukri, Deputy City Manager, Planning and Growth Management  
Stephen Collins, Deputy City Manager, Public Works

**ACTION:** DECISION

---

**Purpose**

The purpose of this report is to seek Council endorsement of the proposed Tree Protection Protocol (Attachment #1) and to authorize staff to make the necessary updates and/or amendments, as required to the Private Property Tree Protection By-law No. 185-2007 and User Fees & Charges By-law No. 022-2018.

**Recommendations**

1. THAT the Tree Protection Protocol (Attachment#1), BE ENDORSED;
2. THAT Council AUTHORIZE Staff to bring forward a new Tree Protection By-law that repeals and replaces the City's current Private Property Tree Protection By-law No. 185-2007, as amended, and Tree Planting, Trimming or Renewal By-law No. 258-83;
3. THAT Council AUTHORIZE Staff to amend the City's Fees and Charges By-law No. 022-2018, as amended, to introduce new fees relating to Tree Protection Agreements;
4. THAT the Tree Protection Protocol shall not come into effect until the new by-laws, in recommendations 2 and 3, are approved by Council and are in full force and effect;

5. THAT once the Tree Protection Protocol comes into effect, one additional full-time complement be added to the Transportation Services, Parks and Forestry Operations Department to execute the Tree Protection protocols; and
6. THAT the additional complement in recommendation 5 be fully funded from user fees imposed for the administration of Tree Protection Agreements.

### **Report Highlights**

- The Tree Protection Protocol articulates objectives that are set out on the Term of Council Service Excellence Strategy Map, specifically to “Re-establish the urban tree canopy”.
- The Tree Protection Protocol will be a resource for both City staff and external stakeholders on how to manage the preservation and protection of private and public trees during construction throughout the City.
- The implementation of the Tree Protection Agreement will allow for greater standardization of tree preservation, tree removal, and proposing new landscapes.
- The amendment to the existing Private Property Tree Protection By-law No. 185-2007 and User Fees & Charges By-law No. 022-2018 will be in alignment with the Tree Protection Protocol.

### **Background**

***The Protocol addresses the following Council direction:***

***“... staff review and report on opportunities to identify or improve protocols relating to the requirements for tree inventories, arborist reports and/or on-site inspections to better ensure future protection of large trees, particularly as they are more common in the historic districts ...”.***

The Tree Protection Protocol (hereinafter referred to as the “Protocol”) addresses Council’s direction to improve and standardize tree protection processes throughout the City of Vaughan and to respond to a Term of Council Service Excellence Strategy Map priority, specifically to “Re-establish the urban tree canopy”.

***The City regulates trees on private property through the City’s Private Property Tree Protection (PPTP) By-law #185-2007 and the Property Standards (PS) By-law #231-2011.***

The intent of the PPTP By-law is to provide specific rules that protect trees over a certain caliper size (20 cm), while identifying a permitting process to obtain authorization for their removal. This permitting tree removal process is administered by the



Transportation Services, Parks and Forestry Operations Department. In addition, the Property Standards (PS) By-law includes language that permits the issuance of an Order to Comply for a tree determined to be “unsafe” and/or where conditions “obstruct the safety of the public”. Enforcement of both By-laws is carried out by the By-law and Compliance, Licensing & Permit Services (BLCLPS) Department.

The City’s PPTP By-law sets out penalties for anyone who damages a protected tree and is currently enforced through the issuance of an Order to cease the injury or destruction of the tree or the laying of a charge where warranted. While the imposition of a penalty and the initiation of a prosecution are available options to the BLCLPS Department enforcement staff, the recovery of damages by a property owner (owner of the tree) remains a civil matter that requires the property owner to seek independent legal advice and initiate a civil proceeding against the party that may have been the cause or origin of the damage. This includes the recovery of any related costs (e.g. tree removal expenses). Where disputes arise over a tree having shared ownership, civil proceedings may also include seeking a court order to protect or prevent the removal of a tree located between two neighboring properties/lands.

Pursuant to Property Standards Sections of the *Ontario Building Code Act*, S.O. 1992, C.23, the City of Vaughan PS By-law, Sections 5.1 Maintenance of Yards and 5.3 Planting also provide the ability for an Order to Comply to be issued to address any identified unsafe conditions or where trees obstruct the safety of the public. This includes the ability to prosecute for Failing to Comply with an Order, and remedy the contravention and recover the costs associated with the work through property tax. This authority can be applied to all owners of a tree in cases where shared ownership has been determined.

Bill 68, Modernizing Ontario’s Municipal Legislation, introduced new tree protection requirements under the *Municipal Act*, 2001. A municipality is required to amend subsection 270 (1) as follows “the manner in which the municipality will protect and enhance the tree canopy and natural vegetation in the municipality”. The City is moving forward to identify standards through the Protocol and By-law updates in order to satisfy these requirements.

#### ***Requirement for public notice***

Public notice for the fee proposals in this report was given in accordance with section 4(4) of the City’s Notice By-law No. 392-2002.

#### **Previous Reports/Authority**

[https://www.vaughan.ca/council/minutes\\_agendas/Extracts/26cw0620\\_17ex\\_10.pdf](https://www.vaughan.ca/council/minutes_agendas/Extracts/26cw0620_17ex_10.pdf)

#### **Analysis and Options**

***Amendments to the existing Planting, Trimming or Removal of Trees By-law No. 258-83, Public Property Tree Protection By-law No. 95-2005, Private Property Tree Protection By-law No. 185-2007, and Private Property Tree Protection By-law No.***



***205-2007, will help to better regulate and enforce the planting, maintenance and removal of trees on public and private property.***

The Protocol is divided into two sections. The first section delineates the City process for reviewing development applications with the potential to impact existing trees. It also introduces a Tree Protection Agreement, which would allow for greater standardization of the technical requirements as they relate to tree preservation, removal, and replacement. The second section of the Protocol provides a technical guide to assist City staff and developers/landowners to assess how proposed development may impact the viability of existing trees, and how tree protection will influence the design of proposed new development. The Protocol will be a resource for City staff and external stakeholders to manage the protection of private and public trees within the City.

To develop the Tree Protection Protocol, Staff followed a comprehensive communication and engagement plan, and established an internal Technical Advisory Committee (TAC), including representatives from the Development Planning, Urban Design and Cultural Heritage, Policy Planning and Environmental Sustainability, Legal Services, Building Standards, By-law and Enforcement, Development Engineering and Engineering and Transportation Services, Parks and Forestry Operations Departments. The TAC outlined the roles and responsibilities of each City department as they relate to tree protection, and identified how to improve current standards and practices related to tree protection by establishing a City-wide Protocol, to inform the development review and tree permitting process.

Staff presented the Protocol to the York Chapter of the Building Industry and Land Development Association (BILD) in September 2017.

The following is a summary of the highlights of the proposed Tree Protection By-law:

	<b>Summary of proposed Tree Protection By-law</b>
Key Definitions	<p>“Applicant” means a Person (either a natural person or a corporation) seeking to obtain a Tree Removal Permit and shall always include the Owner of the property to which the application pertains.</p> <p>“Tree Protection Agreement” means an agreement made pursuant to:</p> <p>(i) a development Agreement, Site Plan Agreement or Subdivision Agreement between the City and a Person; or</p> <p>(ii) a permission by the City, including but not limited to a Building Permit or a Cultural Heritage Permit, that identifies all trees on a lot that are to be preserved and sets out any other measures that the City deems appropriate.</p> <p>“Tree Protection Zone” means the minimum setback required, as determined by the Director of Forestry, to maintain the structural</p>

	<b>Summary of proposed Tree Protection By-law</b>
	integrity of the tree's anchor roots, based on generally accepted arboricultural principles.
Applicability	The By-law does not apply to woodlands covered under a York Region By-law, activities undertaken by the City, York Region, School Board or other public authorities, and lawful Activities undertaken under several Ontario Acts.
Prohibitions	<p>No person may, on public property, damage any trees.</p> <p>No person may, on private property, damage any trees with a diameter of more than 20 centimeters without a Tree Removal Permit. A permit is not required for emergency work, pruning, removal of dead branches, damaging or removing trees on rooftop gardens, interior courtyards, solariums, nurseries or golf courses.</p> <p>No person shall undertake any unauthorized activities within a Tree Protection Zone.</p>
Encroachment onto Public Property	The City may prune any tree(s) on private property that encroach onto public property and may also remove any tree(s) deemed decayed or dangerous.
Tree Removal Permit Application (not associated with a development application)	<p>Every Applicant must submit a completed application, pay the prescribed fee, provide a plan showing the tree(s) to be damaged or removed and provide any other information deemed appropriate by the Director of Transportation Services Parks and Forestry Operations.</p> <p>Where a tree straddles a property line between two private lots, the Applicant must provide written consent to the application from the adjoining Owner.</p> <p>A Permit shall be valid for six months, but may be extended in extenuating circumstances.</p> <p>A Permit shall not be granted if the tree(s) is healthy and no alternative planting plan has been provided, the tree(s) is located in an environmentally sensitive area, removal will have a negative impact on erosion or flood control, or if significant vistas will not be adequately preserved.</p>
Duties of Permit Holders	Permit Holders must post their permit on the property, comply with all conditions of said permit (with such requirement extending to the Permit Holder's employees and agents), and comply with all Orders and lawful direction from the City.

	<b>Summary of proposed Tree Protection By-law</b>
Authority of the Director of Transportation Services Parks and Forestry Operations	The Director of Transportation Services, Parks and Forestry Operations, acting reasonably, may issue, place conditions on, suspend or revoke a Tree Removal Permit(s) and/or provide relief from requirements or require additional measures beyond those of the By-law.
Enforcement Powers	<p>Municipal Law Enforcement Officers may enter on any Lands to ensure compliance with the By-law, a Tree Protection Permit, or an Order or direction.</p> <p>Municipal Law Enforcement Officers may require the production of documents, the provision of information, or access to examine, make tests, and take samples and photographs for the purpose of an inspection.</p> <p>Municipal Law Enforcement Officers may issue an Order requiring a specific remedy and may, pursuant to authorization from the Director of Enforcement, suspend or revoke a Permit.</p>
Offences and Penalties	<p>Every person that contravenes a provision of the By-law is subject to fines as follows:</p> <p>(i) Minimum of \$500 and maximum of \$10,000 for every offence; and</p> <p>(ii) Minimum of \$500 and maximum of \$10,000 for every day the offence continues.</p> <p>Where trees are damaged or removed in contravention of the By-law, fines shall apply as follows:</p> <p>(i) On a first conviction, a minimum of \$250 per tree and a maximum of \$2,500 per tree; and</p> <p>(ii) On any subsequent conviction, a minimum of \$500 per tree and a maximum of \$5,000 per tree.</p> <p>If the person convicted is a corporation, the maximum fines shall be \$10,000 and \$25,000 respectively.</p> <p>In addition to the above fines, if the convictions above relate to a development, a special fine of \$25,000 per tree damaged or removed shall apply.</p>

***The Tree Protection Protocol is to better protect City and privately-owned trees***

The Protocol outlines the processes to protect City-owned and private trees. The Protocol represents the City's standard specifications for tree protection during the land development approval process. The standards also apply to private and City-owned tree

removal applications/permits administered by Transportation Services, Parks and Forestry Operations. Higher standards of tree protection may be imposed where warranted in the opinion of the City's Forestry staff having regard to the size, species, location and health of a tree, and any circumstances surrounding the ensuing construction which may require additional tree protection measures. Also, the Protocol provides an appropriate framework to address requirements of new legislation (Bill 68), which implements amendments to the *Municipal Act*. This Protocol can also be used to guide and inform projects led by other levels of government including York Region, Metrolinx, etc.; however, the City is unable to regulate their activities affecting trees on their property.

The Protocol responds to increasing community interest related to the protection and preservation of trees and minimizing loss during land development activities.

The proposed Protocol provides the following:

- a response to new amendments to the *Municipal Act* that require municipalities to adopt and maintain policies regarding the manner in which the municipality will protect and enhance the tree canopy and natural vegetation in the municipality;
- informs projects led or regulated by other levels of government;
- identifies the roles and responsibilities of City departments regarding tree protection, specifically identifying department protocols for tree protection and removal permitting;
- provides direction on the technical report content required for staff to assess how proposed development will impact the viability of existing trees in the landscape, and preservation methods;
- establishes a "Tree Protection Agreement" that will allow for greater standardization of tree preservation, tree removal, and proposing new landscape;
- excludes natural heritage features such as woodlands and Toronto and Region Conservation Authority regulated or owned lands; and
- creates a resource for both City staff and external stakeholders on how to manage the preservation, removal and replanting of trees City-wide.

The proposed Protocol is intended to achieve the following:

- maintain and re-establish the City's tree canopy;
- align City business processes to ensure consistency in the application of Tree Protection Zones (TPZ);
- increase public awareness about the benefits of the preservation of trees; and
- promote public education and investment in the protection of the City's urban tree canopy.

The Transportation Services, Parks, Forestry Operations Department, in particular the Forestry and Horticulture Division (Forestry) issues private tree removal permits for the infill development application process. Forestry also issues permits for City-owned tree

removals for private projects (not subject to a development application), in addition Forestry reviews and provides comments on some Committee of Adjustment, Cultural Heritage, Fill Permit and Draft Plan of Subdivision applications.

Once this Protocol is implemented, Forestry will be reviewing all Arborist Reports submitted as part of the development review processes. Forestry is a technical resource for the City and will be used to protect the City's interest as they apply to trees.

The Development Planning Department, in particular the Urban Design and Cultural Heritage Division, provides approvals under the development application review, Committee of Adjustment, Cultural Heritage and Fill Permit processes. The Parks Development Department have an interest in applications where City-owned trees within public open spaces or parks may be impacted.

The Policy Planning and Environmental Sustainability Department review and provide input on applications that contain natural heritage features such as woodlands. Where applicable, this is undertaken in consultation with the Toronto and Region Conservation Authority. Policy Planning and Environmental Sustainability Staff also review and provide comments on applications that have potential impacts on Species at Risk (as defined by the Endangered Species Act, 2007). The following table identifies tree permitting categories and City department review/approval responsibilities under the new protocol:

Table 1: Tree Permitting Categories and Responsible Approval Departments

Category		Application Type	Managing Department	Technical Approval Department
Non-Development Application	A	Private Tree Removal Permit	Forestry and Horticulture Division	Forestry and Horticulture Division
Development Application	B	<ul style="list-style-type: none"> <li>- Draft Plan of Subdivision</li> <li>- Site Development</li> <li>- Zoning By-law Amendment</li> <li>- Official Plan Amendment</li> </ul>	Development Planning Department, Urban Design & Cultural Heritage Division	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
		Cultural Heritage Permit	Urban Design & Cultural Heritage Division	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
	C	Building Permit	Building Standards Department	Forestry and Horticulture Division

		Committee of Adjustment	Office of the City Clerk	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
		Fill Permit	Development Engineering and Infrastructure Planning Department	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division

Category A (Non-planning application): Forestry receives an application directly from managing department or applicant.

Category B (Planning application): Tree Protection Agreement is required.

Category C (Planning application): Tree Protection Agreement is not required.

***The Tree Protection Protocol introduces the requirement for a Tree Protection Agreement to protect City and privately-owned trees.***

A Tree Protection Agreement (Agreement) will be required by the City for developments included in Categories B identified in Table 1 above, (i.e. Draft Plan of Subdivision, Site Development and Cultural Heritage Permit applications). The Agreement will secure the protection of City and privately-owned trees that may be impacted by proposed development.

The Agreement is intended to secure that the Owner satisfy all conditions of approval of an application including, but not limited to, cash-in-lieu in an amount equal to the cost of planting and TPZ installation and maintenance for two (2) years in order to ensure compliance with approved landscape or replanting plans. Tree protection guarantees (in the form of a Letter of Credit) held by the City shall only be released by the City when all construction activities are complete, compliance with all approval terms and conditions has been verified, there has been no encroachment into the minimum TPZ and the trees are healthy and in a state of vigorous growth. An Agreement fee will be charged to the applicant in accordance with the established City User Fees & Charges By-law.

## **Financial Impact**

***The Tree Protection Protocol introduces the requirement of a Tree Protection Agreement for certain Planning applications that will result in increased review and inspection activities.***

Staff conducted a resource assessment analysis to validate the need for additional resources to support the successful implementation of the Tree Protection Protocol and administer the Tree Protection Agreements.

Based on the anticipated volume of development applications that would require some form of tree protection, it was determined that one additional full time complement within Forestry would be required upon implementation of the protocols in order to effectively carry out inspection and review requirements. The estimated annual cost of the additional resource and related operational costs would be approximately \$110,000, with one-time set-up costs of approximately \$5,000. A new user fee is recommended to

be charged for each Tree Protection Agreement in order to recover the incremental costs associated with the implementation of the tree protection protocol. Based on the estimated number of development applications that would require some form of tree protection, a fee of \$1,600 plus applicable taxes per agreement would appropriately generate sufficient average annual revenues to offset these incremental costs.

Resourcing requirements will continue to be assessed for the affected departments after the protocol comes into effect, including Financial Planning and Development Finance, Development Planning, By-Law and Compliance, Licensing and Permit Services and Transportation Services, Parks and Forestry Operations. Any additional resourcing requirements will be brought forward through future annual budget processes along with any recommended adjustment to the tree protection agreement fee in order to ensure fees are continuing to appropriately recover the costs of administering the protocol.

### **Broader Regional Impacts/Considerations**

Copies of this report and the Protocol will be provided to York Region, York Region Transit and other agencies to inform their related Tree Protection policies and future investments in Tree Protection.

### **Conclusion**

The Tree Protection Protocol will provide City staff and the development community with the necessary guidance, procedures and standards to protect both City-owned and privately-owned trees during development. Upon approval by Council, the Tree Protection Protocol will be placed on the City's website and cited as a resource at Pre-Application Consultation (PAC) meetings, which will allow future development proponents to reference this document prior to the submission of a development application (s).

The necessary amendments to the Private Property Tree Protection By-law No. 185-2007, Public Tree Protection By-law No. 185-2007 and User Fees & Charges By-law No. 022-2018 will reinforce the Protocol, providing directions for preserving and expanding the existing green canopy as well as standardizing the tree removal and replacement within the City. Therefore, Staff has recommended that the Protocol not be implemented until the proposed amendments to the mentioned By-laws are in full force and effect.

**For more information**, please contact: Rob Bayley, Manager of Urban Design and Cultural Heritage, ext. 8254.

### **Attachments**

1. Tree Protection Protocol, Urban Design Section, Development Planning Department, 2017.

**Prepared by**

Rob Bayley, Manager of Urban Design, ext. 8254

Mauro Peverini, Director of Development Planning, ext.8407

Behnaz Djabarouti, Urban Designer, ext. 8017

Gus Michael, Director of By-Law and Compliance Licensing and Permit Services,  
ext. 8735

Rita Selvaggi, Interim Director of Financial Planning & Development Finance, ext. 8438

Zoran Postic, Director of Transportation Services Parks and Forestry Operations,  
ext.6137

Jay Todd, Manager of Forestry & Horticulture, ext. 6158

/CM





# Tree Protection Protocol



# Content

1. Purpose of the Protocol	1
1.1. Tree Protection Approval Departments	3
2. Tree Protection Protocol	4
2.2. Tree Protection Agreement	12
2.2.1. Security for Tree Protection Agreement	12
3. Technical Requirements	14
3.1. Arborist Report	14
3.1.1. Tree Protection Plan	15
3.1.2. Tree Protection Zone	16
3.1.3. Tree Protection Barriers	16
3.2. Landscape Plan	18
3.2.1. Landscape Cost Estimate	18
4. Compensation	19
4.1. Tree Replacement Requirement (For Private Trees)	20
4.2. Tree Valuation Formula (For Public Trees)	20
5. Specifications	21
5.1. Timing of Planting	23
5.2. Tree Locations and Utilities	23
5.3. Soil Quality	23
5.4. Soil Volume	24
5.5. Spatial Requirements	25
5.6. Species Specification	25
5.7. Tree Damages	26
6. By-Law Enforcement	28
7. Resources	28
7.1. Streetscape Plans	28
8. Glossary	29
9. References	32
Appendix	34

# 1

1. Purpose of the Protocol

1.1. Tree Protection Approval Departments

2. Tree Protection Protocol

2.2. Tree Protection Agreement

2.2.1. Security for Tree Protection Agreement

The City of Vaughan recognizes the significant role that the urban tree canopy plays in providing an improved quality of life. Preserving and protecting healthy trees will help the City of Vaughan achieve its commitment to maintain and enhance the urban forest and the environment. Considering tree protection in the initial stages of planning will result in the enhanced protection of trees and where trees are removed provide for a clear replacement strategy. The Tree Protection Protocol (hereinafter referred to as the “Protocol”) will implement procedures to maintain and enhance the public’s tree canopy through the development approval process.

## 1. Purpose of the Protocol

The purpose of the Protocol is to identify the procedure and standards required by the City to protect public and private trees through the development review processes. These procedures and standards also apply to public and private tree removal permits administered by Urban Forestry<sup>1</sup>. Higher standards of tree protection may be imposed where warranted by the City’s Urban Forestry staff having regard to the size, species, location and health of the tree, and any circumstances surrounding the ensuing construction which requires additional tree protection measures. Also, the Protocol provides a framework to address requirements of new legislation (BILL 68), which requires amendments to the Municipal Act.

The Protocol provides the following:

---

1. The Parks & Forestry Operations department is under the supervision of the Deputy City Manager of Public Works. It is divided into two division: Park and Road Division and Forestry and Horticulture Division has the responsibility for maintaining the urban forest, street trees, and shrub beds, as well as overseeing the contracted works throughout the City.

- identifies the roles and responsibilities of City Departments regarding tree protection, specifically Department protocols for tree protection, and removal permitting;
- provides direction on the technical report contents required for staff to assess how proposed development will impact the viability of existing trees in the landscape, and preservation methods;
- establishes a “Tree Protection Agreement” that will allow for greater standardization of tree preservation, tree removal, and proposing new landscape; and,
- creates a resource for both City staff and external stakeholders on how to manage the preservation, removal and replanting of trees City-wide.

The Protocol is intended to achieve the following:

- Maintain and re-establish the public tree canopy;
- Provide an opportunity to align internal processes to ensure consistency in the application of Tree Protection Zones;
- Increase public awareness about the benefits of the preservation of mature trees; and,
- Promote public education and investment in the protection of the City’s urban tree canopy.

## 1.1. Tree Protection Approval Departments

Individual tree and group of trees are managed by the following Departments:

- The Transportation Services, Parks, Forestry Operations Department, in particular the Forestry and Horticulture Division (Forestry) issue Tree Removal Permit (dead or hazardous tree -residential - construction (infill)) for private projects (not associated with a developing application. Currently, Forestry also reviews and provides comments on some Committee of Adjustment, Cultural Heritage, Fill Permit and Draft Plan of Subdivision application.
- Once this Protocol is implemented, Forestry will review all Arborist Reports submitted as part of the development application review processes.
- The Development Planning Department, in particular the Urban Design and Cultural Heritage Division, provides approvals under the development application review, Committee of Adjustment, Cultural Heritage and Fill Permit processes. The Parks Development Department have an interest in applications where Public trees, within public open spaces or parks may be impacted by proposed development.
- The Policy Planning and Environmental Sustainability Department review and provide input on applications that contain natural heritage features. Where applicable, this is undertaken in consultation with the

Toronto and Region Conservation Authority. The Policy Planning and Environmental Sustainability Department also review and comment on applications that have potential impacts on Species at Risk (as defined by the Endangered Species Act, 2007).

*Detailed information regarding the City of Vaughan Departmental approval authorities for the individual tree and group of trees removals as per the private property tree protection permitting processes and the development review processes are provided in Appendix A.*

**NO TREE REMOVALS ARE PERMITTED WITHOUT THE APPROVAL FROM THE APPROPRIATE DEPARTMENTS.**

## 2. Tree Protection Protocol

The following sections outlines the approval processes for the three categories (processes) identified Table 1.

**Category A:** Private Tree Removal Permit (not associated with a developing application)

**Category B:** Draft Plan of Subdivision, Zoning By-law Amendment, Official Plan Amendment, Site Development and Cultural Heritage Permit

**Category C:** Committee of Adjustment, Building Permit, Fill Permit

*The Protocol does not apply to woodlands and Toronto and Region Conservation Authority regulated or owned lands.*

**Table 1: Tree Permitting Categories and Responsible Approval Departments**

Category		Application Type	Managing Department	Technical Approval Department
Non-Planning Application	A	Private Tree Removal Permit	Forestry and Horticulture Division	Forestry and Horticulture Division
Planning Application	B	- Draft Plan of Subdivision - Site Development - Zoning By-law Amendment - Official Plan Amendment	Development Planning Department, Urban Design & Cultural Heritage Division	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
		Site Development	Development Planning Department, Urban Design & Cultural Heritage Division	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
	C	Cultural Heritage Permit	Urban Design & Cultural Heritage Division	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
		Building Permit	Building Standards Department	Forestry and Horticulture Division
		Committee of Adjustment	Office of the City Clerk	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division
		Fill Permit	Development Engineering and Infrastructure Planning Department	Urban Design & Cultural Heritage Division + Forestry and Horticulture Division

Category A (Non-planning application): Forestry receives an application directly from managing Department or applicant.

Category B (Planning application): Tree Protection Agreement is required.

Category C (Planning application): Tree Protection Agreement is not required.



## Category A: Private Tree Removal Permit (not associated with a development application).

Forestry and Horticulture Division issues 3 types of Private Tree Removal Permits<sup>1</sup> :

**1. Private Tree Removal – dead or hazardous tree:** Private Tree Removal Permit (dead or hazardous tree): In the case of removing dead or hazardous tree(s) the applicant must directly contact Urban Forestry Department. There is no charge for this type of Permit and it will be issued after the Urban Forestry Department's arborist conducts a site inspection and confirms that the tree(s) is dead or hazardous.

**2. Private Tree Removal (Residential):** In the case of removing a healthy tree not because of construction, the applicant must directly contact Urban Forestry Department. Urban Forestry staff will provide applicant with the technical requirements that may include an Arborist Report (based on number of different factors, such as number of tree removals, their size ,...), a Tree Protection Plan and a Replanting Plan/ Landscape Plan to support the Tree Removal Application.

Tree Removal Permit (Residential) costs \$60 plus administration fee plus a \$100 environmental fee for a tree(s) over 20cm. Tree Removal Permit will be issued after the arborist from Urban Forestry Department conducts a site inspection and confirms that authenticity of the arborist report information.

Compensation for tree loss is based on a sliding scale depending on the size of the tree(s) from 1 tree for 20cm to 4 trees for a 51cm tree or paying a cash-in-lieu (refer to section 4.1). If the tree(s) to be removed is located within the City property a valuation for tree is completed and that cost is added to the permit (refer to section 4.2).

**3. Private Tree Removal – Construction or Infill:** This Permit is associated with a development application. Refer to CATEGORY C for more details.

1. Urban Forestry also issues Tree Removal Permit for Public Trees. Refer to the Appendix.

## Category B: Draft Plan of Subdivision, Zoning By-Law Amendments, Official Plan Amendments, Site Development Application Processes and Cultural Heritage Permit

**STEP 1, Pre-Consultation:** Urban Design and Cultural Heritage Division (Urban Design staff) will provide the applicant with the technical requirements for tree protection at the Pre-Application Consultation meeting. The technical requirements may include an Arborist Report, a Tree Protection Plan and a Landscape Plan to support the development application, which must be submitted before an application is deemed complete.

**STEP 2, Technical Submission:** The Urban Design staff and Forestry and Horticulture Division (Forestry) staff will review the submission. The Arborist Report must include an inventory of all existing trees (refer to Section 3.1 for the requirements). The Landscape Plan must include all trees proposed to be planted (refer to Section 3.2 for Landscape Plan requirements).

**STEP 3, Technical Review:** Urban Design and Forestry staff will review the Arborist Report and will examine the impacts of the proposed development on existing trees and provide comments on the proposed tree preservation and/or removal. Urban Forestry may conduct a site visit(s) to verify and validate the Arborist Report (i.e., tree significance, species, size and condition, and identify the trees to be preserved (if applicant proposed removal).

Urban Design and Forestry staff will recommend

where the integration of existing trees into the design of the development is appropriate based on the Protocol. Where trees are proposed to be removed and there are no opportunities to replant or replace these trees within the site, monetary compensation will be required. The City's corporate objectives are to maintain and re-establish the urban tree canopy and strive for no-net-loss to the system. Refer to Section 4.1 and 4.2 for Tree Replacement Requirements for privately and public trees. Formal comments from both Urban Design and Forestry staff shall be provided to the Planner managing the development file.

**STEP 4, Recommendation Report:** The Development Planning Department will prepare a staff report and include recommendations/conditions made during the technical review by Urban Design and Urban Forestry staff. In a case of a delegated approval such as street townhouse development and some employment building applications, the owner will enter into the Tree Protection Agreement and recommendations/conditions made during the technical review by Urban Design and Urban Forestry staff will be part of the Agreement as well. Draft Plan of Subdivision Conditions of Approval, Site Plan Agreement and Letter of Undertaking will include the following conditions:

- The applicant will be required to enter into a Tree Protection Agreement, prior to the

execution of the Draft Plan of Subdivision agreement which includes a Letter of Credit security for trees to be preserved and protected in accordance with the approved Arborist Report. Refer to section 2.2 for details.

- The Letter of Credit associated with the tree protection agreement is determined, through the tree replacement formula provided in the arborist report based on the City Tree Replacement Requirement.

**STEP 5, Implementation:** Applicant will implement the recommendations approved in the Arborist Report:

- Implement a Tree Protection Zone (TPZ) for all neighbor (that locates within the 6 meters of the owner property boundary), owner and Public trees to be preserved based on the approved Arborist Report. Urban Forestry staff will verify the TPZ for all trees. Refer to section 3.1.2 for instructions.
- The applicant will provide compensation for all tree removals (cash-in-lieu or replanting)

based on the approved Arborist Report.

- Follow all the recommendations made in the approved Arborist Report.

**STEP 6, Inspection:** Urban Forestry staff will conduct the following inspections:

- The first inspection will take place prior to construction to verify the TPZ installation.
- The second inspection will take place after the construction has ended and all the trees have been planted.

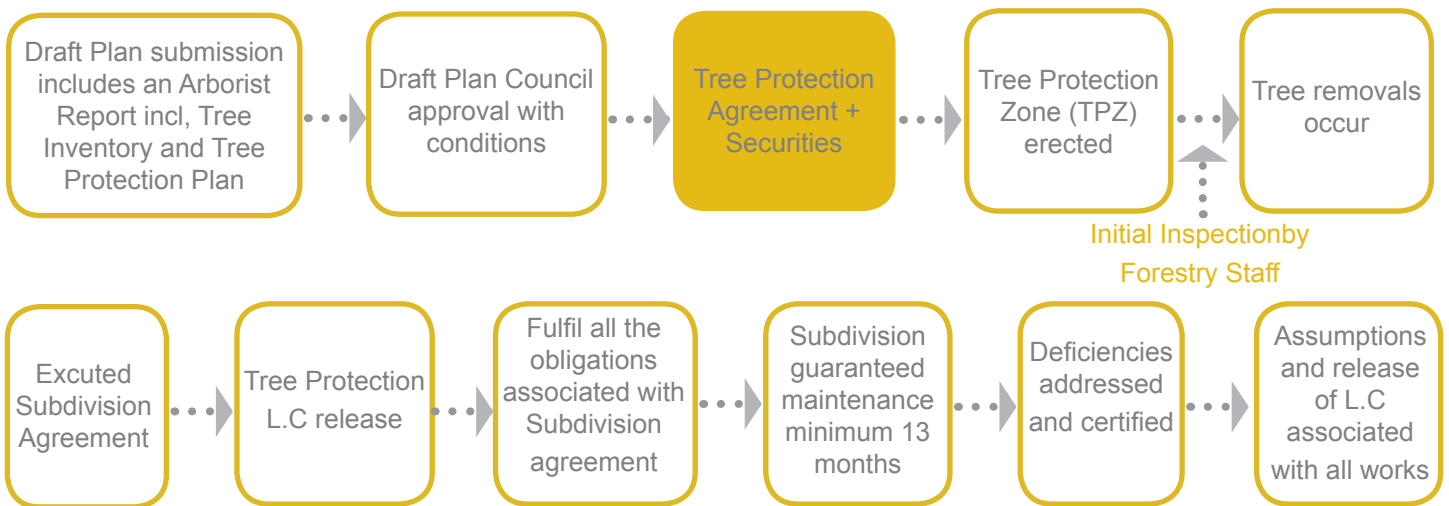
**STEP 7, Release of Securities:**

The Securities for the Tree Protection Agreement will be released:

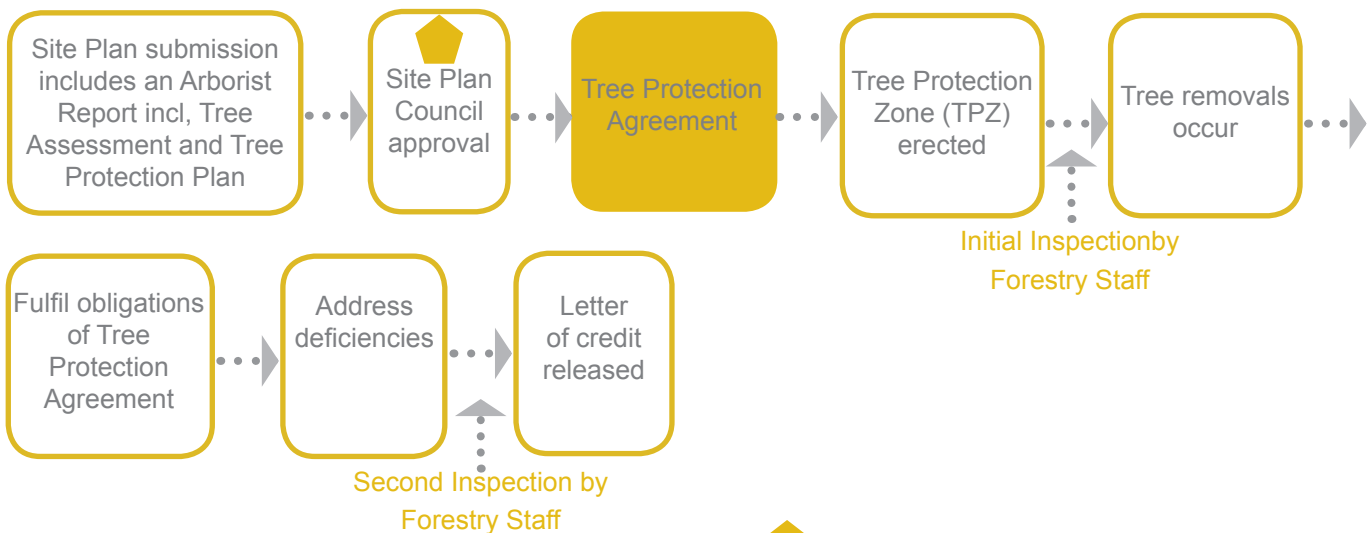
- When the second inspection has been conducted and all the conditions have been cleared. Refer to Sections 2.2.1 for details. The Securities for Landscape Cost Estimate will be released:
- When the second inspection has been conducted and all the conditions have been cleared. Refer to Sections 2.2.1 for details.




## Draft Plan of Subdivision



## Site Plan and Cultural Heritage Permit



 If delegated subject to a Tree Protection Agreement is subject to delegated approval (i.e. approval at a staff level) this step shall not apply.

## Category C: Committee of Adjustment, Building Permit, Fill Permit

**STEP 1, Complete Application:** Urban Forestry staff will provide applicant with the technical requirements for tree protection at the pre-application submission stage of the development review process. These technical requirements may include an Arborist Report, a Tree Protection Plan and a Replanting Plan/Landscape Plan to support the Private Property Tree Removal Permit.

**STEP 2, Technical Review:** Urban Forestry staff will review the submission and provide comments. Urban Forestry staff may conduct a site visit(s) to verify and validate the Arborist Report, and identify trees to be preserved (i.e., tree significance, size, species and condition). Where trees are proposed to be removed and it is determined by Urban Forestry staff, (based on the arborist report submitted and site visit) there are no opportunities to plant replacement trees within the property, monetary compensation

will be required. The City's corporate objectives are to maintain and re-establish the urban tree canopy and strive for no-net-loss to the system. Refer to Sections 4.1 and 4.2 for Tree Replacement Requirements for private and public trees.

**STEP 3, Reporting:** Urban Forestry will provide approval or not on the proposed tree removals for the noted above applications to Development Planning Department. The comments and/or recommendations will vary based on the nature of the proposal. The final/approved Arborist Report will include:

- Number of replanted trees and their species;
- Amount of cash-in-lieu;
- Consent letter from the neighbor in a case that a neighbor's tree(s) will be injured by the proposed; development;
- Removal Permits for public trees; and
- A certification from an arborist to confirm



supervision of the project prior to and during construction to verify all the TPZ installation prevent any damages to neighbor, public and private trees.

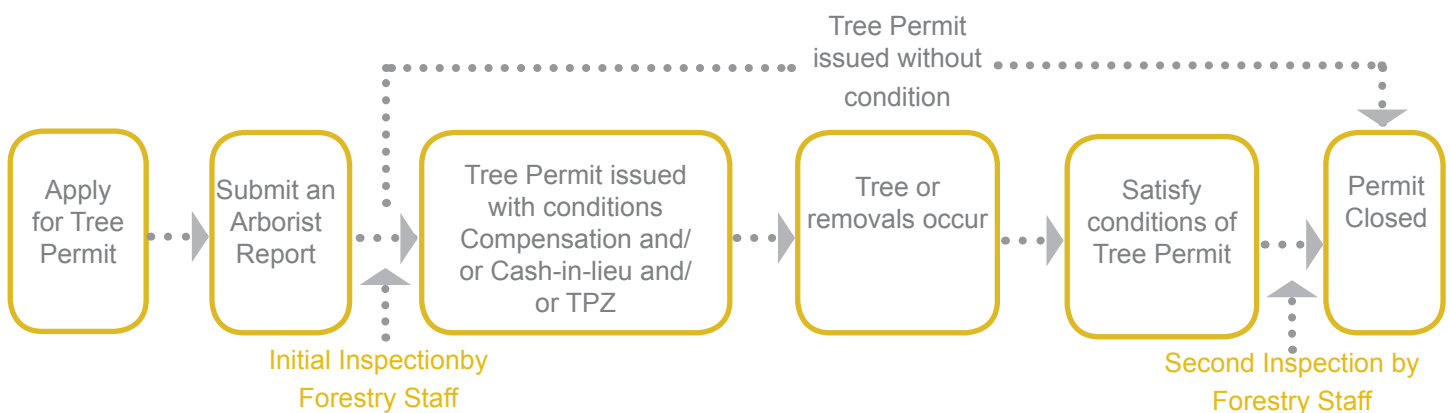
**STEP 4, Implementation:** Applicant will implement the recommendations approved in the Arborist Report:

- Implement a TPZ for all privately-owned and public trees, and trees in close proximity to the development (owned by neighboring landowners), to be preserved based on the approved Arborist Report. Urban Forestry will verify the application of the TPZ for all trees. Refer to Section 3.1.2 for instructions.

- The applicant must provide compensation for all tree removals (cash-in-lieu or replanting) based on the approved Arborist Report.
- Follow all the recommendations made on the approved Arborist Report.
- The Urban Forestry will issue Private Tree Removal – Construction or Infill from prior any tree removals. This permit costs \$115 plus administration an environmental fee of \$120.

**STEP 5, Inspection:** Urban Forestry staff will conduct one inspection prior to alteration/ construction to verify the TPZ installation.

### Tree Removal Permit



## 2.1. Tree Protection Agreement

Following table 1, that divides the City's application to two categories of Planning and non-planning application, the Tree Protection Agreement ("Agreement") only applies to Category B which includes Draft Plan of Subdivision, Zoning By-law Amendments, Official Plan Amendments, Site Development and Cultural Heritage Permit applications. The Tree Protection Agreement will secure the protection of both public and privately-owned trees that may be impacted by proposed development, also the applicant must satisfy all conditions of the permit issuance that includes, but not limited to, the amount of the cash-in-lieu payment for a dollar value equal to the cost of planting, TPZ installation and maintenance for two (2) years in order to ensure compliance with approved landscape or replanting plans. The tree protection Letter of Credit held by the City shall only be released by the City upon completion of all construction activities, compliance with all permit terms and conditions have been verified, there has been no encroachment into the minimum TPZ and the trees are healthy and in a state of vigorous growth. The City shall apply a Tree Protection Agreement to the applicant in accordance with the in-effect User Fees & Charges By-law No. 022-2018.

### 2.1.1. Security for Tree Protection Agreement

Financial Securities must be in the form of a certified cheque or an irrevocable letter of credit, from a financial institution acceptable to the Financial Planning and Development Finance Department. The Security shall be based on cost estimate for each of the individual trees to be preserved using the Tree Replacement Requirements for private and public trees, in Section 4.1.

Securities will be released upon full compliance with the terms and conditions of the Tree Protection Agreement" this occur when the Financial Planning and Development Finance Department has been notified by the inspecting Department, that there are no outstanding deficiencies, and all conditions pursuant to the Tree Protection Agreement have been met.

# 2

## 3. Technical Requirements

### 3.1. Arborist Report

#### 3.1.1. Tree Protection Plan

#### 3.1.2. Tree Protection Zone

#### 3.1.3. Tree Protection Barriers

### 3.2. Landscape Plan

#### 3.2.1. Landscape Cost Estimate

## 4. Compensation

### 4.1. Tree Replacement Requirement (For Private Trees)

### 4.2. Tree Valuation Formula (For Public Trees)

## 5. Specifications

### 5.1. Timing of Planting

### 5.2. Tree Locations and Utilities

### 5.3. Soil Quality

### 5.4. Soil Volume

### 5.5. Spatial Requirements

### 5.6. Species Specification

### 5.7. Tree Damages



## 3. Technical Requirements

The Tree Protection Protocol is supported by technical requirements materials that contain relevant standards, specification and guidelines for arborist reports and studies that are required as part of a complete development application. These technical requirements materials are subject to change over time.

### 3.1. Arborist Report

An Arborist Report must be submitted as part of the Development Planning application(s) and Tree Permit application (Based on Table 1 Category A, B and C). The Arborist Report must be prepared by a certified arborist or landscape architect. An arborist or landscape architect can advise on current tree maintenance requirements and determine the impact a development proposal will have on trees and the surrounding natural environment. The Arborist Report may include the following, although not all the following listed information shall be included on every report as each individual situation warrants an individual level of detail:

**Contact Information:** The company name, address, telephone and fax number, and e-mail of the arborist/landscape architect.

**Location:** Provide the municipal address of the site, and the location of the tree(s) in relation to existing and/or proposed structures and/or lot boundaries, and/or relative proximity to other

tree(s), e.g.

**Inventory Chart:** An inventory chart will identify the trees on the subject and adjacent properties if they fall within 6 m of the site boundary. Also, within this chart the following information must be included:

- Species;
- Size: Diameter at Breast Height (DBH), measured in centimeters at 1.37 meters above ground level;
- Crown spread (Drip Line), measured in meters;
- Tree health/disease;
- Soil volume inside the TPZ using methods approved by the City;<sup>1</sup>
- Tree risk assessment for trees deemed hazardous (as assessed by the arborist) must be provided in accordance with “Best management Practices, Tree Risk Assessment, International Society of Arboriculture” as revised from time to time, including a photographic record of each tree, as required by the City; and
- The decision for each tree (e.g. protecting, injuring, and removing): For each tree identified as being preserved and each tree recommended for removal, the valuation as determined by the most recent City of

<sup>1</sup>- Refer to the City-wide Urban Design Guidelines Volume 2 for the full detail:

[https://www.vaughan.ca/services/business/urban\\_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF](https://www.vaughan.ca/services/business/urban_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF)

Vaughan Tree Replacement Requirement (Section 4.1).

**Tree Protection Plan:** A tree protection plan prepared by a certified arborist or landscape architect will identify the location, species, size and condition of all trees within the Tree Protection Zone, identify the extent of injury where applicable and outline proposed tree protection measures for the trees identified for protection. Refer to section 3.1.1 for details.

**Nature of Work:** Explain what arboricultural work is to be undertaken on the tree(s), e.g. pruning, tree removal, root pruning, tree protection measures required for construction, etc. If it is applicable, explain the silvicultural effect of the proposed work, e.g. disturbing the natural edge, thinning, creating a canopy opening to provide better light conditions, slope destabilization, etc.

#### **Arborist or Landscape Architect**

**Recommendation:** An arborist or landscape architect's recommendation is required for treatment of the existing tree(s), including removal, replacement, and the holistic determination of TPZs for all private, neighboring and Public trees.

**Tree Replacement Requirements:** Include tree replacement requirements based on Tree Replacement Requirements identified in section 4.1.

## 3.1.1. Tree Protection Plan

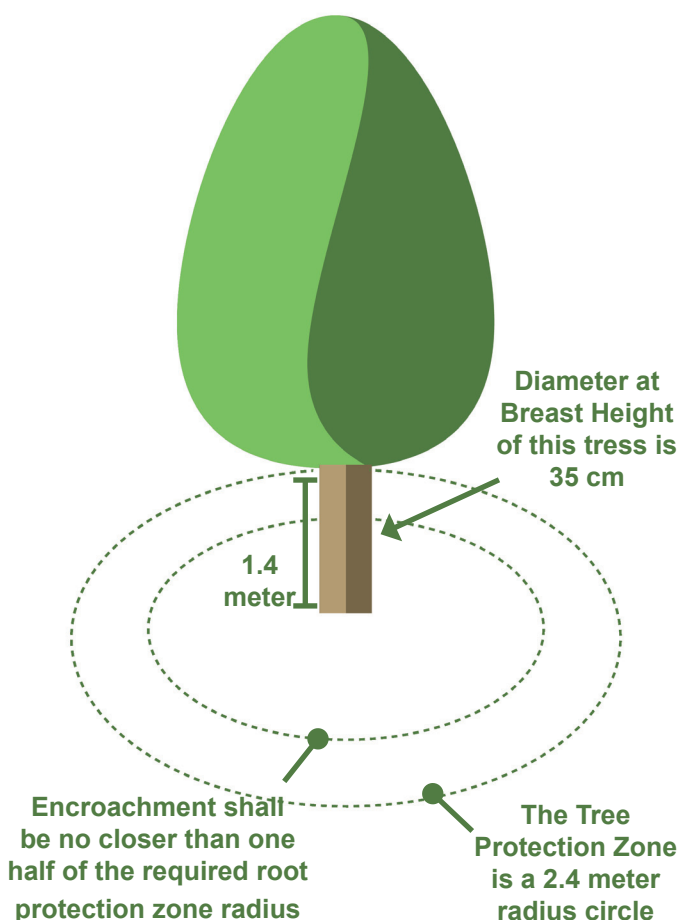
All construction related applications must include a Tree Protection Plan that shows the details of tree protection, prepared in conjunction with an arborist report or in consultation with a certified arborist or landscape architect, when protected trees are in proximity to the proposed work. All Tree Protection Plans must be legible, prepared at a usable metric scale and include the following information:

- Show all existing buildings, structures, hard surfaces and all existing trees within the area of consideration. Depending on the extent of site disturbance, trees on neighboring properties may need to be included if they fall within 6 m of the site boundary. Note that the area of disturbance must include all areas that will be disturbed by the proposed work, including the areas required for over-dig, stockpiling, construction traffic, vehicular access and construction staging;
- The extent of the crown (drip line) or the extent of minimum TPZ (whichever is greater) of each existing tree. Refer to Section 3.1.2 for details;
- Proposed changes on the site, including all proposed structures, services, hard surfaces and grade changes;
- Indicate vehicular access and construction staging areas. Areas proposed for temporary stockpiling of fill or excavated material shall be fenced with sediment control to prevent sediment runoff;

- Indicate the location of any excavation(s) that requires tree root pruning;
- Indicate trees proposed to be removed and/or injured; and,
- Identify and label tree protection barriers and the proposed tree protection zone(s). (See Table 1 to determine size of tree protection zone. Distances are to be measured from base of tree)
- The extent of proposed tree injury, where applicable; and,
- Include a comprehensive legend.

setback at the City's discretion.

**Figure 1: Tree Protection Zone Model (in meter)**



### 3.1.2. Tree Protection Zone

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

No unauthorized activities may take place within the TPZ of a tree covered under any municipal permit process or agreement. The following chart provides the required distances for determining a minimum TPZ for trees located on a City street, in parks and on private property subject to Private Tree By-law. The minimum TPZs are based on the DBH of the tree. Some trees and site conditions may require a greater

**Table 2: Minimum Tree Protection Zone Determination**

Diameter at Breast Height <sup>1</sup> in centimeters	Minimum Protection Distances Required <sup>2</sup> (Public and Private Trees)	Minimum Protection Distances Required Trees in Naturalized Areas
<10	1.2	The drip line <sup>3</sup> or 1.2 m
10-29	1.8	The drip line or 3.6 m
30-40 <sup>4</sup>	2.4	The drip line or 4.8 m
41-50	3.0	The drip line or 6.0 m
51-60	3.6	The drip line or 7.2 m
61-70	4.2	The drip line or 8.4 m
71-80	4.8	The drip line or 9.6 m
81-90	5.4	The drip line or 10.6 m
91-100	6.0	The drip line or 12.0 m
>100	6 cm protection for each 1 cm diameter	12 cm protection for each 1 cm diameter or the drip line

1. Diameter at breast measurement of tree trunk taken at 1.4 meters (m) above the ground.

2. Minimum Tree Protection Zone distances are to be measured from the outside edge of the tree base.

3. The drip line is defined as the area beneath the outer most branch tips of a tree

4. Converted from ISA (International Society of Arboriculture) Arborist Certification Study Guide, general guidelines for tree protection barriers of 0.3 meters of diameter from the tree stem for each centimeter of tree trunk diameter.

### 3.1.3. Tree Protection Barriers

Trees within or adjacent to a construction site, that have been selected for preservation by an arborist or City staff, must be protected during pre-development construction by means of a barrier installed in accordance with the Table 2 and meet the following specifications:

- Tree protection barriers must be erected prior to the commencement of any grading activity, development, site alteration and/or construction activity that may injure a tree on the site and must remain in place throughout the duration of the construction of the project. The applicant shall notify the Urban Forestry division of the City of Vaughan in writing prior to commencing any such activities to confirm that the tree protection barrier(s) is in place;
- The tree protection barriers specified herein must remain in a condition satisfactory to the City until all site activities including landscaping are complete;
- Authorization from the Urban Forestry Department must be obtained prior to the removal of tree protection barriers;
- If some fill or excavated material must be temporarily located near the tree protection barrier, a wooden barrier (See the link below) must be used to ensure no material enters the TPZ.

*For the details regarding Tree Protection Barriers Standards refer to the City-wide Urban Design Guidelines Volume 2:*

*[https://www.vaughan.ca/services/business/urban\\_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF](https://www.vaughan.ca/services/business/urban_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF)*

## 3.2. Landscape Plan

The landscape plan shall provide opportunities for the creation of dynamic and well-defined public spaces. Public spaces include, but are not limited to, public squares, public courtyards, and public commons. The landscape plan shall be prepared by a certified Landscape Architect and shall include the following:

- location of existing trees 20cm in caliper or greater and proposed method(s) of preservation;
- boundary lines of the property with dimensions;
- existing site features, retention/preservation areas;
- surrounding streets and sidewalks;
- contour lines and spot elevations (ghosted lines or separate grading plan);
- existing and future building setbacks, easements, and rights-of-way;
- existing natural features, open space, water bodies, and preservation areas;
- vehicular and pedestrian paving;

- existing and proposed plant materials at installed sizes, location and spacing and dimensions of planting areas in metric;
- plant list naming all recommended plant material and size specifications;
- location and detailed drawings of fences and retaining walls;
- locations of buildings and structures;
- location of all engineering services (e.g. overhead, underground, light standards), which may affect landscaping;
- adjacent landscape/development features, where applicable;
- area of site to be landscaped;
- parking and loading spaces;
- curbs, parking facilities and driveways with dimensions and widths;
- existing and proposed walkways and bikeways; and
- planting details should conform with the City of Vaughan standards.

*For the details regarding Landscape Plan Standards refer to the City-wide Urban Design Guidelines Volume 2:  
[https://www.vaughan.ca/services/business/urban\\_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF](https://www.vaughan.ca/services/business/urban_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF)*

## 3.2.1. Landscape Cost Estimate

The landscape cost estimate includes detailed costing/pricing information on the hard and soft landscaping elements specifying quantities, areas, sizes, equipment, labor and material costs, required for the total cost of the construction of the plan, including fencing, sidewalks, decorative hard service areas, retaining walls, recreation equipment, plant material, fine grade and sod, irrigation system where applicable, cost of one year maintenance, actual current market price, and cost for municipal streetscape works (applicable in some areas). For phased projects, a detailed landscape cost estimate indicating the area and work to be undertaken for each phase must be provided. The landscape cost estimate shall be provided by a fully certified Landscape Architect.

## 4. Compensation

### 4.1. Tree Replacement Requirement (For Private Trees)

Replacement Trees are required as a condition of all Individual tree removals. This does not apply to Woodlots, Edge Restoration plans and Public lands (such as parks and open space lands). In this case, Parks Development Department will review the application.

The number of replacement trees required will be determined by the DBH of the removed tree, as outlined in the following table:

**Table 3: Ratio of Tree Replacement for Private Trees**

DBH of Tree to be Cut or Removed	Number of Replacement Trees Required
20cm to 30cm	1
31cm to 40 cm	2
41cm to 50cm	3
51cm or greater	4

The scaled tree replacement ratio acknowledges the increased environmental and community benefits provided by larger trees, and enables a more rapid recovery of the City's net tree canopy after a permitted tree removal. The City specifies whether the replacement tree(s) should be deciduous or coniferous. The following specifications apply to replacement trees:

- Leafy (deciduous) trees must have a caliper of at least 60mm;
- If fruit-bearing trees are desired, two trees must be planted to substitute each evergreen or leafy tree replacement;
- Must be planted within one year of the issuance of the tree removal permit;
- Must not be a shrub or a low growing tree;
- Must not be an invasive species;
- Must be good quality, number one (1) grade, nursery-grown stock and installed as per City approved details and standards; and
- Shall meet the highest horticultural standards of the Canadian Nursery Trades Association with respect to grading and quality, and shall be in strict accordance with the approved Plant List and Specifications.

Notwithstanding the above specifications, replacement trees for removed fruit-bearing and ornamental trees may be of a similar species. Replacement tree species are to be selected by the project arborist from a list of recommended replacement tree species available from the City, or as recommended by the arborist, provided the recommended species are non-invasive to the satisfaction of the City. The City encourages replacement trees that are of a species that will not block desired views or otherwise negatively impact neighboring properties.

- Evergreen (coniferous) trees must be at least 200 cm tall;

## 4.2. Tree Valuation Formula (For Public Trees)

### Cash-in-lieu Contribution

In instances where more replacement trees are required than can reasonably be accommodated on the development site, a 'cash-in-lieu' payment may be made to the Forestry Tree Reserve Fund to fund tree planting on public properties in the same community.

Note: Cash-in-lieu payments can only be made if all the required replacement trees cannot be planted on the development site; City staff will determine if the site can or cannot accommodate all of the required replacement trees and if a cash-in-lieu payment is appropriate in each case. The amount of the security (Letter of Credit) for the provision and maintenance of replacement trees or cash-in-lieu of planting replacement trees shall be:

- \$550 per replacement tree where the replacement tree is a deciduous tree in 2018.
- \$550 per replacement tree where the replacement tree is a coniferous tree in 2018.

**The replacement rate for deciduous and coniferous trees will be reviewed annually every spring.**

The Tree Valuation Formula is a tool that considers the operational, environmental and social costs of trees based on the tree species, size and overall condition. The formula uses the costs for tree removal and planting to ensure that values are current. The Forestry and Horticulture Division use this formula to calculate the compensation for Public trees. The formula estimates how many newly planted trees will be required to replace the existing tree to be removed. This Tree Value Multiplier is then multiplied by the planting cost (Installation Costs) and then further modified by multiplying the product by the species type (Species Rating) and the condition of the tree (Tree Quality Rating). The Tree Removal and Tree Cost is then added to determine the Total Cost. In the example below, a 25-centimeter Silver Maple is considered equivalent to 5 newly planted trees in terms of canopy replacement. This value is then multiplied by the Installation Costs (\$ 356.00), the Species Rating (56%) and the Tree Quality Rating (90%) to determine The Total Opportunity Cost (\$ 1077.31). This value will be added to the Tree Removal (\$ 330.54) and the Tree Costs (\$ 550.00) to arrive at The Total Cost (\$ 1,764.10).

**The tree costs will be updated annually also the cost for public tree(s) in soil cell (strata) will be calculated in a same manner as a public tree.**



**Table 4: Tree Replacement Formula for Public Trees**

Tree Description			Standing Tree Value- Opportunity Costs					Operations Costs		
Tree#	Species	Diameter (cm)	Tree Value Multiplier <sup>1</sup>	Installation Costs <sup>2</sup>	Species Rating <sup>3</sup>	Tree Quality Rating <sup>5</sup>	Total Opportunity Cost	Tree Removal <sup>4</sup>	Tree Costs <sup>2</sup>	Total cost
Ex.	Silver Maple	25	5	\$ 356.00	56.00%	90.00%	\$ 1,077.31	\$ 330.54	\$ 550.0	\$1,764.10

1. The multiplier divides the basal area of the proposed tree by that of a 50 mm tree (20) and then by four ( $Y=(T1/ta)/4$ ,  $ta=50$  mm tree)

2. The installation costs is the average contracted planting cost of the most recent contract, plus 15% administration costs.

3. The species rating is based on the latest Ontario tree rating and used as a value qualifier.

4. The tree removal cost is based on field data from Vaughan forestry operations.

5. The tree quality value is based on the health of the tree and is a modifier between zero and one.

## 5. Specifications

### 5.1. Timing of Planting

Deciduous trees can be planted in the spring, as soon as the frost is out of the ground or in the fall, from leaf-fall until freeze-up. Poplars, willows, ash, elms, and birches tend to overwinter better if planted in the spring. Evergreens can be planted early in the spring until four weeks after deciduous trees have opened their leaves or in the fall, from about the first week of August to the end of October.

### 5.2. Tree Locations and Utilities

The contractor is responsible for all services and utilities in the planned work area. The contractor responsible for the activity in the Municipal Right-of-Way shall be responsible for obtaining all necessary information regarding the exact location of utilities, including service connections. The contractor completing the work will be held responsible for the protection of all services, whether aerial or underground, during the time of construction and will be held liable for any damage.

### 5.3. Soil Quality

The functional relationship between tree roots and the characteristics of the soil in which they grow has the greatest influence on tree health. When poor soil quality limits growth, it increases maintenance requirements and the likelihood of tree failure. Laboratory testing and appropriate specifications are important tools for improving control over the quality and quantity of the growth medium for tree survival. The quality and integrity of the subsoil is equally as important as the organic layer of topsoil. An ideal medium for tree growth can be modelled after forest soils. Ideal soils are comprised of 45% mineral materials (sand, silt and clay), 50% open pore space, and 5% organic matter and organisms. The soil profile is normally made up of four major horizons developed as a result of rainfall, heating and cooling, chemical reactions and biological activity.

Typical unaltered soil horizons:

- Thin layer of decomposing organic material
- Contains most absorbing roots
- Fine textured material from a horizon and particles from parent material
- Subsoil composed of rocky parent material

Roots grow where soil conditions are favorable. Absorbing roots are most frequently in the upper 15-25cm of soil and tree roots are not usually found deeper than 1-1.5m. Soil texture (sand, silt, clay) affects the soil's ability to hold water and provide oxygen to the roots. Bulk

density measures the soil's porosity, or airspace between particles. Reduced bulk density resulting from compaction restricts root growth, reduces water infiltration and availability, and limits the movement of oxygen and carbon dioxide in the root zone. Soil pH affects which tree species will grow based on the availability of minerals. Soil pH is difficult to alter and therefore species should be selected based on existing soil.

## 5.4. Soil Volume

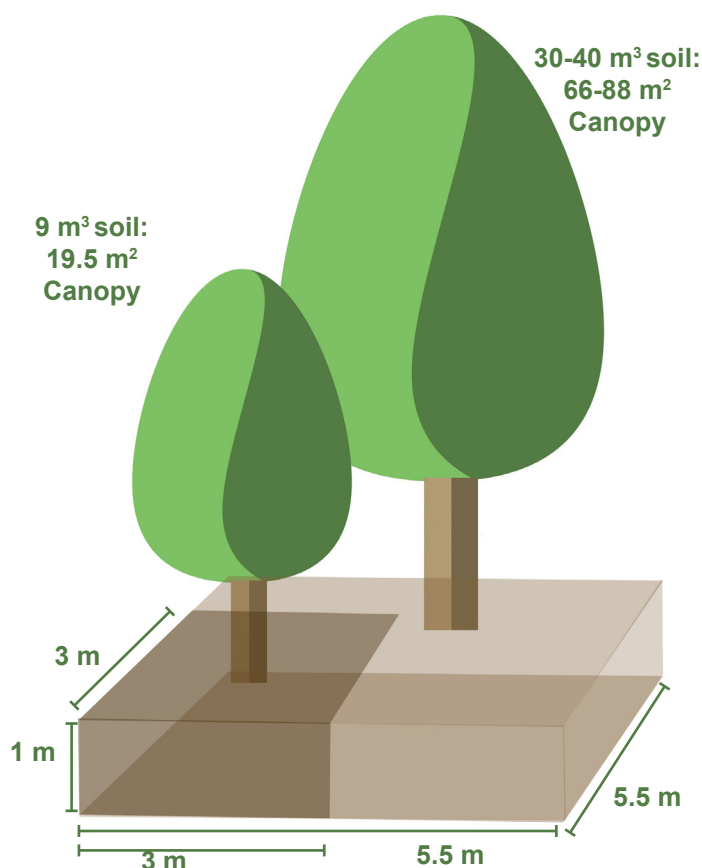
More soil volume will yield larger, healthier trees. Each cubic meter of soil volume will support approximately 2.2m<sup>2</sup> of tree canopy area (canopy area is defined as the area on the ground directly under the canopy). Accommodations must be made laterally, as trees roots run laterally rather than vertically down. A single, mature tree with a canopy diameter of 4m requires 30m<sup>3</sup> of soil volume. Street trees that share soil resources in a continuous trench or planting bed require 20m<sup>3</sup> of soil volume per tree to achieve a healthy, mature size. In places where especially large, long-lived trees are essential to the streetscape, such as important boulevards and promenades, shared soil volumes of 40m<sup>3</sup> per tree should be provided, if space allows.

Further specifications include:

- Individually-planted trees each need a minimum of 30m<sup>3</sup> of soil;
- A grouping of  $\geq 2$  trees in a soil bed need a minimum of 20m<sup>3</sup> of soil per tree;
- Adequate soil depth is 1m; greater depth if available is better; minimum soil depth is the depth of the tree's root ball;
- Where existing soil resources are available, they should be used; and
- An approach that prioritizes total tree canopy size over quantity of trees, should be used (for trees in a strata park or road the soil volume standards are still the same).

*For the details regarding Soil Volume Standards (this includes Soil Cell as well) refer to the City-wide Urban Design Guidelines Volume 2: [https://www.vaughan.ca/services/business/urban\\_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF](https://www.vaughan.ca/services/business/urban_design/General%20Documents/20180111%20UD%20DESIGN%20STANDARD%20DETAILS%20ALL.PDF)*

**Figure 2: Tree Soil Volume**



## 5.5. Spatial Requirements

Within the limitations of the streetscape environment, materials and methods for tree planting can be determined and variations to the standard road cross section can be considered to accommodate tree growth and associated spatial requirements. In order for trees to sustain their health and growth potential, and consequently provide the most benefits, trees must have as much space as possible. There is a balance that a tree maintains between the surface leaf area for photosynthesis and the area of absorbing roots for water and nutrient uptake. A soil volume criterion is based on the expected size and stature and life span of a particular tree species. Where soil volume space is limited, site specific enhanced planting strategies should be designed to extend the root zone under hard surfaces. Above ground tree parts must also be considered to reduce conflicts between trees and surrounding infrastructure, to minimize maintenance, and to increase benefits and survivability.

## 5.6. Species Specification

Different species of trees are suited to different planting typologies, and vary with regard to a number of factors including, among others:

- General physiological requirements;

- Soil moisture and nutrient requirements;
- Adaptation to local climate and microclimates;
- Long-term maintenance requirements (e.g., pruning);
- Root system characteristics;
- Canopy form;
- Pest and disease susceptibility;
- Pollution tolerance;
- Fruit and seed production;
- Invasive potential and 'weediness';
- Biogenic volatile organic compound (VOC) emissions; and,
- Salt tolerance.

Refer to the Appendix for the general characteristics of tree species suitable for establishment within one or more of the tree planting typologies within the City of Vaughan.

## 5.7. Tree Damages

Physical injury to the trunk, crown and roots of a tree will occur if construction equipment is permitted too close to trees or if structures are built into the growing space of a tree. Inappropriate pruning may also result in tree injury. Physical injuries are permanent and can be fatal.

Root cutting is a type of physical injury that can significantly impact the health of a tree. The

majority of tree roots are found in the upper 15 -25 cm of soil. Excavation for foundations or utility installation may cut roots if the excavation is too close to trees. Trees can become destabilized and may fall over if anchor roots are severed and may result in safety concerns.

Compaction of the soil in the tree root zone is one of the leading causes of tree decline. Soil compaction occurs primarily from vehicles and equipment moving across the root zones. Piling or storing materials or debris on top of the root system can also result in soil compaction. Soil compaction causes a reduction in the pore spaces in the soil, which contain air and water necessary for root growth. Without space available for oxygen and water, tree roots will suffocate and a decline in tree health will follow. With rutting, a form of intense compaction, roots are severed by the tires of equipment. Root destruction can also be caused by changes to the existing grade. Adding soil on top of tree roots can smother them by reducing the amount of oxygen and water they can receive. Only a few centimeters of added soil can have a detrimental impact on tree health.

# 3

- 6. By-Law Enforcement
- 7. Resources
  - 7.1. Streetscape Plans
- 8. Glossary
- 9. References

## 6. By-Law Enforcement

The role of the By-law & Compliance, Licensing & Permit Services Department, Enforcement Service Unit is to enforce the regulatory requirements prescribed within the appropriate tree protection by-laws, as passed by City Council. Tree related matters are brought to the attention of Enforcement Services primary through two sources 1) public complaint, 2) referral from internal/external Departments/agencies. All tree related calls are taken as priority and normally attended too with 24 to 48 hours.

Actions relating to violations can include:

- Issuance of an Order to Deceased from continuing to injure/damage protected trees;
- Requirement to obtain a permit;
- Prosecution under applicable laws.

The primary intent of the tree protection by-laws is to preserve protected trees, to deter unlawful activity through the appropriate enforcement authority and to encourage compliant public behavior.

## 7. Resources

### 7.1. Streetscape Plans

Streets are infrastructure that contains opportunities to serve multiple functions and types of users including public space, pedestrian and bicycle mobility and access, storm water capture and/or filtration, air quality improvement, temporary or permanent art placement, community character, as well as support for many social and business activities, depending on community priorities. Street trees and planting are often associated with streetscape beautification. However, street trees and planting have other functions that contribute to “complete streets” including reducing the heat island effect, storm water management, creating oxygen, barrier protection from vehicles and noise, and protection for pedestrians from the elements including rain, wind and sun. Ecosystem services provided are closely tied to canopy size and therefore planting conditions and techniques should be considered to promote the growth of trees to maturity. Streetscape plans contribute to community building and placemaking and play a significant role in the vitality, livability and character of a city or neighborhood.

*The City-wide Streetscape Plans and area-specific Streetscape Plans are available at the Urban Design Webpage:*  
[https://www.vaughan.ca/services/business/urban\\_design/Pages/URBAN-DESIGN-GUIDELINES.aspx](https://www.vaughan.ca/services/business/urban_design/Pages/URBAN-DESIGN-GUIDELINES.aspx)

## 8. Glossary

**APPLICANT** means a Person seeking to obtain a Tree Removal Permit and, either in person or through an Authorized Agent, makes such an application. For clarification, an Applicant shall always include the Owner of the property to which the application pertains;

**ARBORIST** means a person with a diploma or degree involving arboriculture from an accredited college or university, a Registered Professional Forester, an accredited Certified Arborist under the International Society of Arboriculture, or a person with a demonstrated history of tree preservation experience;

**ARBORIST REPORT** means a report prepared by an Arborist or Landscape Architect which provides details on the species, size and health of a Tree to be Destroyed, Injured or removed;

**BASE DIAMETER** means the measurement of the diameter of the trunk of a tree from outside the bark at the existing grade of the ground adjoining its base or where there are multiple stems on a tree, means the total of the diameters of the three (3) largest stems measured at existing grade;

**CITY** means the Corporation of the City of Vaughan, in the Regional Municipality of York and its employees and agents acting on the Corporation's behalf;

**CLERK** means the Clerk of The Corporation of the City of Vaughan or duly appointed designate;

**COUNCIL** means the Council of The Corporation of the City of Vaughan;

**DEAD** means a tree that has no living tissue;

**DIAMETER** with respect to a Tree, means the measurement of the diameter of the trunk of a tree from outside the bark 1.4 metres above existing grade of the ground adjoining its base or where there are multiple stems on a Tree, means the total of the diameters of the three (3) largest stems measured approximately 140 centimetres above existing grade;

**DYING** means a Tree that is infected by a lethal pathogen or where 70% or more of its crown is dead;

**HAZARD** means a tree that is a potential hazard to property or life but not an immediate threat;

**INJURE OR DESTROY** with respect to a Tree, means the injury or destruction of a Tree by removal, cutting, girding of the tree or roots, interfering with the water supply, application of chemicals, compaction and regrading within the drip line of the Tree, or by other means including irreversible injury which may result from neglect, accident or design, but does not include pruning;



**LANDS** means a lot only and does not include a building;

**LANDSCAPE ARCHITECT** means a person registered as a Landscape Architect under the provisions of the Ontario Association of Landscape Architects Act, 1984 S.O. 1984, c. P412;

**LOT** means a parcel of land having specific boundaries which is capable of legal transfer;

**OWNER** means the registered owner of a Lot, his/her respective successors and assigns or his/her duly Authorized Agent;

**PERMIT** Means a permit required by By-law No.185-2007 (as may be amended), to injure or destroy a tree on private property within the City;

**PERMIT HOLDER** means an Applicant once a Tree Removal Permit has been granted;

**PERSON** includes a natural individual, a corporation, partnership, proprietorship or other form of business association and the heirs, executors, administrators, successors and assigns, or other legal representatives thereof, or a receiver or mortgagee in possession;

**PRIVATE PROPERTY** means any property not owned by the City;

**PUBLIC PROPERTY** means any property owned by the City;

**PUBLIC TREE** means any Tree which has 50 percent or more of its main stem situated on Public Property;

**REGION** means the Regional Municipality of York and its employees and agents acting on its behalf;

**TREE** means a self-supporting woody plant which has reached or will reach a height of at least 4.5 metres at maturity;

**TREE PROTECTION AGREEMENT** means an agreement made pursuant to:

- (i) a development agreement, site plan agreement or subdivision agreement between the City and a Person; or
- (ii) a permission by the City, including but not limited to a building permit or a cultural heritage permit, that identifies all Trees on a Lot that are to be preserved and sets out any other measures that the City deems appropriate.

**TREE PROTECTION ZONE** means the minimum setback required, as determined by the Director of Forestry, to maintain the structural integrity of the tree's anchor roots, based on generally accepted arboricultural principles;

**TREE REMOVAL PERMIT** means a permit required by this by-law to Injure or Destroy or otherwise remove a Tree on Private Property within the Cit.

## 9. References

- City of Barrie. January 2010. *Tree Protection Manual*
- City of Hamilton. December 2009. *Tree Protection Guidelines, City-wide*
- City of Kitchener. February 2002. *Tree Management Policy - Council Policy Resolution*. 38 pgs.
- City of London. 2005. *Tree Preservation Policy*.
- City of Markham. June 2009. *Streetscape Manual*
- City of Mississauga. 2002. *Tree Protection Measures*
- City of Ottawa. *Tree Protection Guidelines*. 2 pgs.
- City of Owen Sound. *Tree Preservation Policy*. 4 pgs.
- City of Surrey, B.C. 1997. *Developer's Guideline to the Tree Preservation By-law*. 4 pgs.
- City of Thunder Bay. 2005. *Tree Protection Standards* 1 page.
- City of Toronto. June 2016. *"Tree Protection Policy and Specifications for Construction near Trees"*. Urban Forestry Services. 8 pgs.
- City of Vaughan. 2010. *City of Vaughan Official Plan*.
- City of Waterloo. 2001. *Urban Forest Policy*. 32 pgs.
- City of Waterloo. *"Protective Measures for trees during Construction"*. 6 pgs.
- Expanding the Urban Forest – one tree at a time*. November 2012. Parks & Forestry Operations
- OMNR. 2000. *A Silvicultural Guide to Managing Southern Ontario Forests*. Version 1.1 Ont. Min. Nat. Resources. Queen's Printer for Ontario, Toronto, 648 pgs.
- Matheny, Nelda and James R. Clark, *Trees and Development, A Technical Guide to Preservation of Trees During Land Development*, 1998, International Society of Arboriculture, ISBN 1-881956-20-2.
- The Corporation of the City of Cambridge, *Tree Management Policies and Guidelines for New Developments*, (April 1999)
- Town of Aurora. June 2015. *Tree Protection/ Preservation Policy*
- Town of Newmarket. *Tree Preservation, Protection, Replacement, and Enhancement Policy*. 8 pgs. Appendix "B" to Report PD02229(c)
- York Region *Forest Management Plan*. November 2016.

# 4

Appendix

# Appendix A: Detailed City of Vaughan Departmental Approval Authorities

The authority to allow tree removals as per the private property tree protection permitting process and the development review process are provided below.

## **City's Private Property Tree Protection By-law #185-2007**

The City regulates trees on private property through Private Property Tree Protection (PPTP) By-law #185-2007 and the Property Standards (PS) By-law #231-2011. The intent of PPTP By-law is to provide specific rules that protect trees over a certain caliper size (20 cm), while identifying a permitting process to obtain authorization for their removal. This private permitting tree removal process is administrated by the Transportation Services, Parks and Forestry Operations Department (TSPFO) specifically Urban Forestry.

The TSPFO directly manages the permit process for the majority of circumstances that are outside of the development approval process. However, with development applications, multiple Departments can be involved. The TSPFO Department will not issue a Tree Removal Permit for lands subjects to a planning application infill development that has been submitted to the Development Planning Department. Currently there are four types of Tree Removal Permits (Public and Private):

### **1. Private Tree Removal Permit for Dead,**

**Hazardous or Ash Tree:** This application for if for anyone who requires a permit to remove a privately-owned tree that is dead, hazardous or an Ash Tree anywhere in the City of Vaughan.

### **2. Private Tree Removal Permit Residential:**

This application is for anyone who requires a permit to remove a total of five (5) or less trees that are privately owned anywhere in the City of Vaughan.

### **3. Private Tree Removal Permit**

**Construction or Infill:** This application is for anyone who requires a permit to remove more than (5) trees that are privately owned anywhere in the City of Vaughan.

### **4. Public Tree Removal Permit:**

For a City tree removal request, the City Arborist will inspect the tree and its location on the site. The Arborist or Landscape Architect will perform a tree evaluation and the TSPFO Department will approve or deny the permit based on this evaluation and a number of factors including but not limited to health, species, size, and significance of the tree and comments from other Departments. If the application is approved and the tree is healthy the tree is assessed through the City tree valuation process and a cost for the tree is established. The applicant of the permit will then pay for the value of the tree. In order

to enhance the City's tree canopy the funds received from this permit process are held in the City's tree reserve account and within a one-year period the TSPFO Department will plant trees within the proximity of the tree that was removed or in an area of need. The trees will be replanted on Public lands (e.g. boulevards, parks).

In terms of tree preservation, the Transportation Services Parks and Forestry Operations (TSPFO) is responsible for the installation of Tree Protection Zone (TPZ) for Public trees when construction takes place near those trees as well as conducting inspections for the TPZ of private trees. These standards will be applied to projects under the development review processes.

### **Building Standards**

Building Standards Department does not directly involve in the protection of trees, however there are few avenues that Building Standards staff, advise applicant and Urban Forestry on the tree protection:

- Advising Urban Forestry staff on the existing trees within the property through the AMANDA, during the Building Permit review;
- Stamping Building Permit drawings that states applicant must apply for the Tree Permit prior to any tree removals;

- Giving hand out to the applicant prior to the Building Permit Application that provides sufficient information regarding the Tree Removal Process.

### **Development Planning**

For development applications, tree preservation and removal permissions are currently administrated by the Urban Design and Cultural Heritage (UDCH) Division specifically, Urban Design, in consultation with other City Departments such as Policy Planning and Environmental Sustainability and Urban Forestry. The various Development Application processes include:

#### **a. Block Plans**

The Policy Planning and Environmental Sustainability (PPES) Department lead the review of the Block Plan process and take into consideration the Vaughan Official Plan 2010 (VOP 2010) Policies and Natural Heritage Network (NHN) Strategy findings and other studies to inform their review and advice to protect trees. Master Environmental Servicing Plan (MESPs) and Environment Impact Studies (EIS) documents are a typical requirement and these studies include information that is assessed to help inform tree protection. At the early stage of a Block Plan process, PPES Department engage the appropriate city staff in

the review and development of the Block Plan as members of the Technical Advisory Committee for the particular Block Plan process.

### **b. Development Applications (Draft Plans of Subdivision and Site Development Applications)**

Draft Plans of Subdivision and Site Development approvals are led by the Development Planning Department. Development Planning staff engage UDCH, PPES, and Urban Forestry staff to review potential tree and natural heritage implications that may result from a development application. At the early stage of a development review process, Urban Design staff provide applicants with tree protection requirements at the Pre-Application Consultation (PAC) meeting including:

- Arborist Report/ Tree Inventory and Preservation Plan;
- Landscape Plans and Cost Estimate;
- Edge Management Plan (if adjacent to woodland feature); and
- Restoration Planting Plan.

As part of the Draft Plan of Subdivision/Site Development application processes, Urban Design and Urban Forestry staff review the application to ensure that development will not affect any trees or vegetation and provide a recommendation(s) to protect preserved trees

prior to the application approval.

When Urban Design and Urban Forestry staff concur with all the proposed recommendations, conditions will be provided to Development Planning to accompany approval recommendations. These conditions will assure that tree preservation and tree compensation will happen based on the recommendations of the technical report.

Development Planning staff will not issue the clearance of any conditions until such time as the conditions are reviewed to the satisfaction of the Urban Design and Urban Forestry staff. Any tree removals for an application are subject to the Urban Design/Forestry Replacement Tree Requirements. Any natural heritage impacts are subject to PPES and the Toronto and Region Conservation Authority approvals.

A Letter of Credit is required for a Plan of Subdivision/Site Development Application and an inspection will be conducted by Urban Forestry staff.

### **c. Cultural Heritage Permits**

Cultural Heritage approval and inspection is led by the Cultural Heritage Division in collaboration with the Development Planning Department. Cultural Heritage staff engage UD, PPES, and Urban Forestry staff to review tree and natural heritage implications on a property (ies) subject

to a Cultural Heritage permit application. Designation of an area as a Heritage Conservation District (HCD) is an important means of protecting a Cultural Heritage Landscape to control new development and site alteration within the district.

As part of the Cultural Heritage permit, the Cultural Heritage Coordinator will review all development applications within an HCD to ensure that the heritage landscape will be protected and conserved through the proposed development as well as ensure that development will not affect any trees or vegetation and provide a recommendation(s) to protect preserved trees prior to approval. Urban Design will request an Arborist Report/ Tree Inventory and Preservation Plan on a property which contains private and/or adjacent public trees to Draft Plans of Subdivision and Site Development application.

The Cultural Heritage Coordinator will consider/ prioritize the merits of the Heritage Permit application based on applicable heritage policies/law and collaborate with the Urban Designer to make sure that Cultural Heritage comments are complementary.

When Urban Design and Urban Forestry staff concur with all the proposed recommendations, conditions will be provided to the Cultural Heritage Coordinator. These conditions

will assure that tree preservation and tree compensation will happen based on the recommendations of the technical report.

Any tree removals for a Cultural Heritage permit are subject to the Urban Design/Urban Forestry Tree Replacement Requirements.

#### **d. Committee of Adjustment Application**

Committee of Adjustment (CoA) approval and inspection is led by the Office of the City Clerk in collaboration with the Development Planning Department. Development Planning staff engage UDCH, PPES, and Urban Forestry staff to review potential tree and natural heritage implications that may result from a Minor Variance or Consent application.

As part of the CoA staff review the application to ensure that development will not affect any trees or vegetation and provide a recommendation(s) to protect preserved trees prior to approval. Staff will request an Arborist Report/ Tree Inventory and Preservation Plan on a property which contains private and/or Public trees that were not be subject to a related Plan of Subdivision/ Site Plan application.

When Urban Design and Urban Forestry staff concur with all the proposed recommendations, conditions will be provided to the Development Planning Department for inclusion in Minor



Variance/ Consent application approval recommendations. These conditions will assure that tree preservation and tree compensation will happen based on the recommendations of the staff report.

Development Planning staff will not issue the clearance of any conditions until such time as the conditions are reviewed to the satisfaction of the Urban Design staff. Any tree removals for a Minor Variance or Consent application are subject to the Urban Design/Forestry Replacement Tree Requirements. Any natural heritage impacts are subject to discussions and any conditions provided by the PPES Department.

#### **e. Fill Permit (Site Alteration) Application**

Fill Permit (Site Alteration) approval and inspection is led by the Development Engineering (DE) Department. Development Engineering staff engage UDCH, PPES, and Urban Forestry staff to review potential tree and natural heritage implications that may result through a Fill Permit process.

As part of the Fill Permit process staff review the application to ensure that the placement of fill in areas of the City will not affect any trees or vegetation within the project boundary (within the private and public boundary) and provide a recommendation(s) to protect preserved

trees prior to issuance of a Fill Permit. Any tree removals for Fill permits are subject to the Urban Design/Forestry Tree Replacement Requirements.

**Policy Planning and Environmental Sustainability**  
The Planning Act enables the City to protect the City's tree canopy through the development review process, Provincial Policy Statement 2014, York Region Official Plan 2010, City of Vaughan Official Plan 2010, and the City's Green Direction Vaughan. The following provides an overview of tree protection framework and policies.

**York Region Forest Management Plan**  
The York Region Forest Management Plan (Plan) 2016, approved by York Region Council in November 2016, was developed to work towards net gains in trees and woodlands to maximize the benefits of all trees in the Region and to combat threats to them. The Plan establishes a vision and goals for trees and woodlands in the Region and will be delivered through a series of objectives, strategies and short, medium and long-term actions. It builds on current strategic direction in York Region Vision 2051, York Region Official Plan 2010, the 2015-2019 Strategic Plan, and current programs such as the Greening Strategy.

A commitment to green infrastructure has multiple benefits towards advancing York Region

Council's goals, and is aligned with current and future initiatives. For example, tree protection support, cooling of our urban environments in summer months, improvements in air quality and other direct and indirect public health benefits including complimenting priority initiatives of the Region's Seniors Strategy.

The Plan includes a review of the current York Region Official Plan 2010 woodland cover target of 25 per cent by 2031, and includes a total canopy cover target at the Regional level supported by target canopy cover ranges for local municipalities.

York Region's Forest Conservation (Bill 70) By-law 2013-68 protects forests in York Region. Under the By-law, landowners require a permit from York Region before they can remove any trees from treed areas greater than 0.2 hectares (0.5 acres).

### **City of Vaughan Official Plan and Green Directions Vaughan**

The Policy Planning and Environmental Sustainability Department (PPES) is responsible for two over-arching policy documents that guide urban growth and environmental management in the City: Vaughan Official Plan 2010 (VOP 2010); and, the Community Sustainability and Environmental Master Plan (Green Directions Vaughan). The York Region Official Plan and

VOP 2010 conform to the PPS 2014. Specific responsibilities of the PPES Department in relation to woodland management and tree protection are noted below:

- Developing environmental, natural heritage and green infrastructure policies as part of the VOP 2010 and supporting guidelines such as the Environmental Management Guide. This responsibility includes delineation of the Natural Heritage Network (NHN) in Schedule 2 of the VOP 2010 and maintenance of the inventory of natural features in a GIS database, including woodlands;
- Developing policies for woodland protection and woodland compensation pertaining to the maintenance of the NHN;
- Implementing NHN policies and delineation through the review of development applications under the Planning Act and infrastructure projects under an Environmental Assessment process;
- Supporting improvements in the broader urban canopy, such as through the review of environmental matters related to development applications, the development of the Sustainability Metrics, and future efforts regarding the provision of "green infrastructure" (as now defined in the Provincial Policy Statement);
- Researching policy direction and best practices for green infrastructure and the urban canopy and connections to community

health, the provision of ecosystem services, and in relation to the maintenance of biodiversity; and

- Reviewing Master Environment and Servicing Plan (MESP) submissions for Block Plans and/or Secondary Plans and reviewing Environmental Impact Study (EIS) submissions related to Draft Plan and Site Development applications.

PPES staff provide natural heritage planning advice in the development review process (i.e., Draft Plan of Subdivision, Site Development, Committee of Adjustments applications etc.) At the Pre-Application Consultation meeting, PPES staff will request an Environmental Impact Study/ Natural Heritage Evaluation for any proposed projects that may potentially impact natural heritage features such as woodlands. It is important to place the tree protection procedure and protocol within the context of policy protection for woodlands and maintenance of significant woodlands. Where a stand or clusters of trees meets the definition of a woodland under the VOP 2010, then woodland policies should be reviewed to determine the appropriate steps for protection and/or compensation. Where a stand of trees does not meet the criteria to be defined as woodland, then protocols for addressing individual trees are followed.

## Appendix B: Sample of Arborist Report

*For the sample of Arborist Report please refer to: [http://www.vaughan.ca/services/business/committee\\_of\\_adjustment/General%20Documents/AGENDAS/2015%20Meeting%20Agendas/19%20-%20October%202022,%202015%20Meeting%20Agenda/Item%2036%20-%20A317-15%20-%20Addendum%201%20Arborist%20Report.pdf](http://www.vaughan.ca/services/business/committee_of_adjustment/General%20Documents/AGENDAS/2015%20Meeting%20Agendas/19%20-%20October%202022,%202015%20Meeting%20Agenda/Item%2036%20-%20A317-15%20-%20Addendum%201%20Arborist%20Report.pdf)*

## Appendix C: Forestry Preferred Tree Lists

### List of Deciduous Trees for Parks and Development

CODE	COMMON NAME	SCIENTIFIC NAME	FORM
ACc	Hedge Maple	<i>Acer campestre</i>	small
ACf	Freeman Maple	<i>Acer freemanii</i>	large
ACfF	Firefall Maple	<i>Acer x freemanii</i> 'Fire-fall'	large
ACfK	Karpick Maple	<i>Acer freemanii</i> 'Karpick'	columnar
ACgi	Amur Maple	<i>Acer ginnala</i>	small
ACgr	Paperbark Maple	<i>Acer griseum</i>	small
ACn	Manitoba Maple	<i>Acer negundo</i>	large
ACpa	Japanese Maple	<i>Acer palmatum</i>	small
ACpaB	Red Leaf Japanese Maple	<i>Acer palmatum</i> 'Blood-good'	small
ACp	Norway Maple	<i>Acer platanoides</i>	large
ACpC	Columnar Maple	<i>Acer platanoides</i> 'Columnare'	columnar
ACpCK	Crimson King Maple	<i>Acer platanoides</i> 'Crimson King'	large
ACpCS	Crimson Sentry Maple	<i>Acer platanoides</i> 'Crimson Sentry'	columnar
ACpD	Deborah Maple	<i>Acer platanoides</i> 'Deborah'	large
ACpDR	Harlequin Maple	<i>Acer platanoides</i> 'Drummondii'	medium
ACpG	Globe Maple	<i>Acer platanoides</i> 'Globosum'	small
ACpR	Royal Red Maple	<i>Acer platanoides</i> 'Royal Red'	large

ACps	Sycamore Maple	Acer pseudoplatanus	large
ACr	Native Red Maple	Acer rubrum	large
ACsi	Silver Maple	Acer saccharinum	large
ACsu	Sugar Maple	Acer saccharum	large
ACt	Tartarian Maple	Acer tartaricum	small
AEc	Ruby-Red Horse Chestnut	Aesulus carnea 'Briotii'	large
AEg	Ohio Buckeye	Aesulus glabra	large
AEnh	Horse Chestnut	Aesulus hippocastanum	large
AM	Serviceberry	Amelanchier spp	small
ARe	Devil's Walking Stick	Arailia elata	shrub
BEpa	White Birch	Betula papyrifera	large
Bepe	Cutleaf Weeping Birch	Betula pendula	medium
CACA	Musclewood - Blue Beech	Carpinus caroliniana	medium
CAco	Bitternut Hickory	Carya cordiformis	large
CAo	Shagbark Hickory	Carya ovata	large
CAP	European Hornbeam	Carpinus betulus	medium
CAs	Northern Catalpa	Catalpa speciosa	large
CEc	Red Bud	Cercis canadensis	small
CEj	Katsura	Cercidiphyllum japonicum	medium
CEo	Hackberry	Celtis occidentalis	large
COc	Turkish Hazel	Corylus colurna	medium
CR	Hawthorn spp	Cretaeus spp	small
Ela	Russian Olive	Elaeagnus angustifolia	medium
EUac	Dwarf Burning Bush	Euonymus alatus compacta	shrub

EUu	Rubber Tree	Eucommia ulmoides	medium
FAG	American Beech	Fagus grandifolia	large
FAs	European Beech	Fagus sylvatica	large
FAsF	Columnar European Beech	Fagus sylvatica 'Fastigiata'	columnar
FAsR	Tricolor Beech	Fagus sylvatica 'Rosea-marginata'	large
Glb	Ginkgo / Maidenhair Tree	Ginkgo biloba	large
GLt	Native Honeylocust	Gleditsia triacanthos	large
GLtD	Street Keeper Honeylocust	Gleditsia triacanthos 'Draves'	large
GLtI	Thornless Honeylocust	Gleditsia triacanthos var. inermis	large
GLtS	Shademaster Honeylocust	Gleditsia triacanthos 'Shademaster'	large
GLtS	Skyline Honeylocust	Gleditsia triacanthos 'Skycole'	large
GLtSU	Sunburst Honeylocust	Gleditsia triacanthos 'Suncole'	large
GYd	Kentucky Coffee Tree	Gymnocladus dioica	large
JUc	Butternut	Juglans cinerea	large
JUn	Black Walnut	Juglans nigra	large
LaW	Golden Chain Tree	Laburnum x watereri 'Vossii'	large
LIt	Tulip Tree	Liriodendron tulipifera	large
LItJ	Emerald City Tulip Tree	Liriodendron tulipifera 'JFS-Oz'	large
MAG	Galaxy Magnolia	Magnolia x 'Galaxy'	large
MAP	Profusion Crabapple	Malus 'Profusion'	small

MApWS	Maclura pomifera 'White Shield'	White Shield Osage Orange	large
MAR	Royalty Crabapple	Malus 'Royalty'	small
MASo	Saucer Magnolia	Magnolia x 'soulangiana'	small
MASt	Star Magnolia	Magnolia stellata	small
OSv	Hop Hornbeam / Iron-wood	Ostrya virginiana	medium
PHa	Amur Cork	Phellodendron amurense	large
PLa	London Plane Tree	Platanus x acerifolia	large
POa	White Poplar	Populus alba	large
POaP	Bolleana Poplar	Populus alba 'Pyramidalis'	large
POb	Balsam Poplar	Populus balsamifera	large
Poc	Carolina Poplar	Populus x canadensis 'Eugenei'	large
POg	Big Tooth Aspen	Populus gradidentata	large
POn	Lombardy Poplar	Populus nigra var. 'Italica'	large
POt	Trembling Aspen	Populus tremuloides	large
PRc	Purpleleaf Sand Cherry	Prunus x cistena	small
PRs	Black Cherry	Prunus serotina	small
PRt	Flowering Almond	Prunus triloba var. multiplex	shrub
PRv	Choke Cherry	Prunus virginiana	medium
PRvS	Schubert Cherry	Prunus virginiana 'Schubert'	medium
PYc	Ornamental Pear	Pyrus calleryana	small
QUa	White Oak	Quercus alba	large

QUb	Swamp White Oak	Quercus bicolor	large
QUBM	Prairie Stature Oak	Quercus x Bimundorum 'Midwest'	large
QUm	Burr Oak	Quercus macrocarpa	large
QUp	Pin Oak	Quercus palustris	large
QUro	English Oak	Quercus robur	large
QUroa	Crimson Spire Oak	Quercus robur x alba 'Crimschmidt'	large
QUroF	Pyramidal English Oak	Quercus robur 'Fastigiata'	large
QUru	Northern Red Oak	Quercus rubra	large
ROp	Black Locust	Robinia pseudoacacia	large
SOa	European Mountain Ash	Sorbus aucuparia	small
SOj	Japanese Pagoda	Sophora japonica 'Regent'	medium
SOt	Oakleaf Mountain Ash	Sorbus thuringiaca 'Fastigiata'	small
SYr	Ivory Silk Tree Lilac	Syringa reticulata 'Ivory Silk'	small
THo	White Cedar	Thuja occidentalis	small
Tla	American Basswood	Tilia americana	large
TlaR	Redmond Linden	Tilia americana 'Redmond'	large
Tlc	Little Leaf Linden	Tilia cordata	large
TlcG	Greenspire Linden	Tilia cordata 'Greenspire'	large
ULa	American Elm	Ulmus americana	large
ULaJ	Jefferson Elm	Ulmus americana 'Jefferson'	large



ULP	Pioneer Elm	Ulmus x 'Pioneer'	large
ZEs	Zelcova	Zelcova serrata	medium

### List of Coniferous Trees for Parks and Development

Ab	Balsam Fir	Abies balsamea	large
Ac	White Fir	Abies concolor	large
Af	Fraser Fir	Abies fraseri	large
Cn	Weeping False Cy- press	Chamaecyparis nootka- tensis 'Pendulata'	shrub
Jv	Eastern Red Cedar	Juniperus virginiana	shrub
Ld	Larch	Larix decidua	large
LI	Tamarack	Larix laricina	large
Mg	Dawn Redwood	Metasequoia glypto- stroboides	large
Pa	Norway Spruce	Picea abies	large
Pg	White Spruce	Picea glauca	large
Pme	Douglas Fir	Pseudotsuga menziesii	large
Pmu	Mugo Pine	Pinus mugo	shrub
Pn	Austrian Pine	Pinus nigra	large
Po	Serbian Spruce	Picea omorika	columnar
PpB	Colorado Blue Spruce	Picea pungens 'Glaucous'	large
Pst	White Pine	Pinus strobus	large
Psy	Scots Pine	Pinus sylvestris	large

## List of Deciduous and Coniferous Trees for Street Trees

### Species Planting Rules:

*No more than 10% of any Genus per project*

*No more than 4 trees of the same Genus in a row or in the same area*

COMMON NAME	SCIENTIFIC NAME	RESTRICTIONS
Hedge Maple	<i>Acer campestre</i>	none
Freeman Maple	<i>Acer freemanii</i>	none
Amur Maple	<i>Acer ginnala</i>	none
Norway Maple	<i>Acer platanoides</i> 'Emerald Queen'	none
Columnar Maple	<i>Acer platanoides</i> 'Columnare'	none
Royal Red Maple	<i>Acer platanoides</i> 'Royal Red'	none
Crimson Sentry Maple	<i>Acer platanoides</i> 'Crimson Sentry'	none
Karpick Maple	<i>Acer rubrum</i> "Karpick"	none
Silver Maple	<i>Acer saccharinum</i>	arterial roads & reverse front-ages only
Sugar Maple	<i>Acer saccharum</i>	residential, none arterial streets only
Tartarian Maple	<i>Acer tartaricum</i>	none
Ohio Buckeye	<i>Aesulus glabra</i>	none
Serviceberry	<i>Amelanchier</i> spp	none
European Hornbeam	<i>Carpinus betulus</i> "Fastigiata"	none
Katsura	<i>Cercidiphyllum japonicum</i>	residential, none arterial streets only
Hackberry	<i>Celtis occidentalis</i>	none
Turkish Hazel	<i>Corylus colurna</i>	residential, none arterial streets only
European Beech	<i>Fagus sylvatica</i>	none
Columnar European Beech	<i>Fagus sylvatica</i> 'Fastigiata'	none
Ginkgo / Maidenhair Tree	<i>Ginkgo biloba</i>	none
Skyline Honeylocust	<i>Gleditsia triacanthos</i> 'Skycole'	none
Sunburst Honeylocust	<i>Gleditsia triacanthos</i> 'Suncole'	none

Kentucky Coffee Tree	Gymnocladus dioica	none
Tulip Tree	Liriodendron tulipifera	residential, none arterial streets only
Amur Cork	Phellodendron amurense	none
London Plane Tree	Platanus x acerifolia	none
Ornamental Pear	Pyrus calleryana	none
White Oak	Quercus alba	none
Swamp White Oak	Quercus bicolor	none
Burr Oak	Quercus macrocarpa	none
English Oak	Quercus robur	none
Crimson Spire Oak	Quercus robur x alba 'Crim-schmidt'	none
Pyramidal English Oak	Quercus robur 'Fastigiata'	none
Northern Red Oak	Quercus rubra	none
Ivory Silk Tree Lilac	Syringa reticulata 'Ivory Silk'	none
Redmond Linden	Tilia americana 'Redmond'	none
Little Leaf Linden	Tilia cordata	none
Pioneer Elm	Ulmus x 'Pioneer'	arterial roads & reverse front-ages only
American Elm	Ulmus americana	arterial roads & reverse front-ages only
Zelcova	Zelcova serrata	none

